

Minnesota Attorney General: Administrative Rules Proceedings

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Version 3
August 20, 2018

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT ATTORNEY GENERAL

Office Memorandum

TO: STEVE KEEFE, Commissioner
Department of Labor and Industry

DATE: 10-15-85

ATTN: HAROLD SCHULTZ
Special Assistant Attorney General

FROM: J. MICHAEL MILES JMM
Assistant Attorney General

PHONE: 296-6555

SUBJECT: In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

The above-referenced rule has been approved as to its legality by the Attorney General on October 14, 1985.

Enclosed is the agency's copy of the approved rule. This office has already filed two copies of the approved rule with the Secretary of State, who will forward one copy to the Revisor of Statutes. The fourth copy is being retained by this division of the Attorney General's Office for its records.

Also enclosed are any petitions, requests, submission or comments received by the agency and any extra copies of documents which the agency submitted to the Attorney General.

In order for a permanent rule without a hearing to become effective, your agency must publish a notice of adoption in the State Register in accordance with Minn. Stat. § 14.27. An emergency rule becomes effective five working days after approval by the Attorney General; however, the agency must publish a notice in the State Register in accordance with Minn. Stat. § 14.34.

If you have any questions in this regard, please contact me.

JMM:pmf

Enclosures

cc: Maryanne Hruby
Executive Director
Legislative Commission to Review
Administrative Rules

Duane Harves
Chief Administrative Law Judge
Office of Administrative Hearings

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT LABOR AND INDUSTRY

Office Memorandum

TO: Martha J. Casserly
Special Assistant Attorney General

DATE: 9/30/85

FROM: Joan Volz
Chief Counsel

PHONE: 7-4795

SUBJECT: **ADOPTION OF RULES GOVERNING PERMANENT PARTIAL DISABILITY**

The Department of Labor and Industry has adopted the above-captioned rules pursuant to its authority under Minn. Stat. § 176.105 (1984). Having received no requests for a public hearing, the Department proceeded under the noncontroversial rulemaking provisions, Minn. Stat. §§ 14.21-14-28 (1984). The Department is now submitting the amendments to the Attorney General for approval pursuant to Minn. Stat. § 14.26.

As the following documents demonstrate, the Department has fully complied with all requirements imposed by law or rule:

1. An Order for Publication and for Notice of Intent to Adopt Rules Without a Public Hearing was issued by the commissioner on July 12, 1985. It directed the publication of the Notice in the State Register and the mailing of the Notice to all persons on the list maintained by the agency.

2. A Certificate verifying the accuracy and completeness of the agency's mailing list of persons and groups requesting notice of proposed adoption of amendments was prepared on July 31, 1985.

3. An Affidavit of Mailing the Notice of Intent to Adopt Rules without a Public Hearing on July 31, 1985 to persons and groups on the certified list described in number two was executed.

4. The Notice of Intent to Adopt Rules Without a Public Hearing was published in the State Register at 10 S.R. 313 on August 5, 1985 together with the rules as proposed. The Notice contained all of the elements required by Minn. Rules pt. 2000.0400, subp. 2.

5. A Statement of Need and Reasonableness describing the reasons, arguments, and evidence supporting a finding of need for and reasonableness of the proposed rules was drafted and made available to the public by August 5, 1985.

6. No comments or requests for hearing were received by the Department during the 30 days ending on September 4, 1985.

7. Findings of Fact were issued by the Commissioner on September 23, 1985. These findings document the Department's compliance with all requirements of law and rule and the need and reasonableness of the proposed rules as modified. The modifications are not substantial changes because they merely clarify the intent of the rules as proposed without affecting the rights of any parties.

8. An Order Adopting the Rules was issued by the Commissioner on September 23, 1985. It states that proper notice of the proposed rulemaking was effected, fewer than 25 requests for public hearing were received, and that the rules are needed and reasonable.

9. A certificate verifying that no persons or groups requested to be notified of the submission of these rules to the Attorney General was completed on September 23, 1985.

10. The proposed rules as modified were approved as to form by the revisor of statutes on September 30, 1985.

11. A Certificate of Compliance with Rulemaking Procedures was signed on September 27, 1985 by Harold Schultz, Special Assistant Attorney General.

Please call me or Hap Schultz if you have any questions regarding these rules.

JV/crm

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT REVISOR OF STATUTES

Office Memorandum

TO: Joan Volz
Department of Labor and Industry

DATE: September 30, 1985

FROM: John C. Fuller
Assistant Deputy Revisor

PHONE: 296-0955

SUBJECT: AR0788 Adopted Rules Governing Workers' Compensation Partial Disability Schedules

Enclosed are four copies of your rule with the modifications you requested.

Please submit the rules to the Attorney General or the Office of Administrative Hearings, as appropriate, for final approval.

If you have any questions or need further modifications, please call.

CRS/
Enclosure
ARO

Our File No. ~~1416~~ 85-0004-060C

RULE REVIEW CHECKLIST

DATE RULE RECEIVED 9-30
DATE FOR REVIEW 10-9
DATE DUE 10-14

Adopted w/a hearing ____
Adopted w/o hearing ✓
Temporary rule ____

Approved 10/14/85 Disapproved ____ Returned to Agency ____

Resubmitted ____ Due ____
Approved ____ Disapproved ____ Returned to Agency ____

Date filed w/Secretary of State 10-15-85 Revisor approved 10/2/85 disapproved ____

✓ Rule as Adopted

✓ Rule as Proposed

✓ Order Adopting 9.23.85 Date

____ Notice of Intent to Solicit Outside Opinion

✓ Order for rulemaking
N/A date of Hearing

N/A Certificate of Board's Authorizing Resolution

✓ Notice of rulemaking
____ Sufficiency statement of no impact on small biz

✓ Affidavit of Mailing Notice or rulemaking
7.31.85 At least 30 days prior to ~~hearing~~/adoption

✓ Mailing list Certificate

✓ Publication in State Register
8.5.85 At least 30/~~20~~ days prior to ~~hearing~~/adoption

N/A Hearing Examiner's Report

✓ Chief Hearing Examiner's Report(s)
____ Approving H.E.'s Report
____ Approving agency action

✓ Agency's Findings of Fact

N/A LCRAR Report or agency Affidavit

✓ Certificate of Board's Resolution Adopting Rules

✓ Order Approving Incorporation by Reference

✓ Statement of Need and Reasonableness

N/A Petition for Adoption of a Rule

✓ Record (includes transcript or tape, exhibits, comments received by agency, requests for a hearing, and other relevant materials)

✓ Certificate of Compliance w/Rulemaking Procedures

✓ Affidavit of ~~Mailing~~ Notice of Submission to Attorney General

N/A Notice of Submission to the Attorney General

AG copy

Department of Labor and Industry

Adopted Rules Governing Workers' Compensation Permanent Partial Disability Schedules

Rules as Adopted

5223.0010 WORKERS' COMPENSATION PERMANENT PARTIAL DISABILITY SCHEDULES.

Subpart 1. **Purpose of schedules.** Minnesota Statutes, section 176.105, subdivision 4, requires the commissioner of labor and industry to adopt rules assigning specific percentages of disability of the whole body for specific permanent partial disabilities. This chapter assigns percentages of disability of the whole body for permanent partial disabilities.

Subp. 2. **Interpretation of schedules.** Only the categories in the schedules in this chapter may be used when rating the extent of a disability. Where a category represents the disabling condition, the disability determination shall not be based on the cumulation of lesser included categories. If more than one category may apply to a condition, the category most closely representing the condition shall be selected. Where more than one category is necessary to represent the disabling condition, categories shall be selected to avoid double compensation for any part of a condition. The percentages of disability to the whole body as set forth in two or more categories shall not be averaged, prorated, or otherwise deviated from, unless specifically provided in the schedule. Unless provided otherwise, where an impairment must be rated under more than one category, the ratings must be combined using the A + B (1-A) formula as provided in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c). With respect to the musculo-skeletal schedule, the percent of whole body disability for motor or sensory loss of a member shall not exceed the percent of whole body disability for amputation of that member.

Subp. 3. **Disabilities not part of schedules.** A category

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not found within this chapter shall not be used to determine permanent partial disability.

Subp. 4. **Rules of construction.** The technical terms in this chapter are defined in either part 5223.0020, or by the documents incorporated by reference in this chapter. Documents are incorporated by reference only to the extent necessary for definition or to the extent specifically referenced in a schedule. The documents incorporated by reference are not subject to frequent change, although new editions occasionally may be published. These documents are common medical references and are conveniently available to the public as noted in items A to K. These documents are as follows:

A. Guides to the Evaluation of Permanent Impairment, published by the American Medical Association, Committee on Rating of Mental and Physical Impairment, second edition 1984. This document is also known as the A.M.A. Guides. Available at the University of Minnesota, Biomedical Library.

B. Snellen Charts, published by American Medical Association Committee for Eye Injuries and designated Industrial Vision Test Charts. These charts are also known and referred to as A.M.A. charts. Available at the Minnesota State Law Library.

C. American Medical Association Rating Reading Card of 1932, published by the American Medical Association Committee for Eye Injuries. This document is also known as the A.M.A. Card. Available at the Minnesota State Law Library.

D. S3.1-1977 Criteria for Permissible Ambient Noise during Audiometric Testing and S3.6-1969 (R1973) Specification for Audiometers, published by the American National Standard Institutes, Inc. in 1973 and 1977, respectively. Available at the Minnesota State Law Library.

E. Metropolitan Life Insurance Company Height and Weight Tables, published by the Metropolitan Life Insurance Company, 1983. Available at the Minnesota State Law Library.

F. The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, published by Sister Kenny Institute, 1973. Available at the

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Minnesota State Law Library.

G. Dorland's Illustrated Medical Dictionary, 26th edition, published by W.B. Saunders Company, 1981. This document is also known as Dorland's. Available at the University of Minnesota Biomedical Library.

H. D.S.M. III, Diagnostic and Statistical Manual of Mental Disorders, published by American Psychiatric Association, 1980. This document is also known as D.S.M. III. Available at the University of Minnesota Biomedical Library.

I. Fractures, Charles A. Rockwood and David Green, published by Lippencott, 1975. Available at the University of Minnesota Biomedical Library.

J. Textbook on Anatomy, William Henry Hollinshead, published by Harper & Row, 1985. Available at the University of Minnesota Biomedical library.

K. "The Estimation of Areas of Burns," in Surgery, Gynecology and Obstetrics, by Lund and Browder, pages 352-358, volume 79, published by Surgical Publishing Company of Chicago, 1944. This document is referred to as Lund and Browder. Available at the Minnesota State Law Library.

Subp. 5. **Severability.** If any provision of this chapter is held to conflict with a governing statute, applicable provisions of the Minnesota Administrative Procedure Act, or other relevant law; to exceed the statutory authority conferred; to lack a reasonable relationship to statutory purposes or to be unconstitutional, arbitrary, or unreasonable; or to be invalid for any other reason; the validity and enforceability of the remaining provisions of the rule shall in no manner be affected.

5223.0020 DEFINITIONS.

Subpart 1. **Scope.** For the purpose of this chapter the terms defined in this part have the meanings given them unless the context clearly indicates otherwise. Terms not defined in this part are defined in Dorland's or other documents incorporated by reference. If the definition in a document incorporated by reference conflicts with or differs from the definition in this chapter, the specific definitions in this

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chapter shall govern.

Subp. 2. **Acromio-clavicular grade 1.** "Acromio-clavicular grade 1" means an undisplaced acromio-clavicular joint.

Subp. 3. **Acromio-clavicular grade 2.** "Acromio-clavicular grade 2" means a 50 percent displacement of the clavicle in relationship to the acromion at the acromio-clavicular joint.

Subp. 4. **Acromio-clavicular grade 3.** "Acromio-clavicular grade 3" means a completely disrupted acromio-clavicular joint.

Subp. 5. **Activities of daily living.** "Activities of daily living" means the ability to perform self cares, to perform housework and related tasks, to ride in or operate a motor vehicle, and to perform vocational tasks not requiring physical labor.

Subp. 6. **Ankylosis.** "Ankylosis" means the stiffening or fixation of a joint.

Subp. 7. **ANSI.** "ANSI" means the American National Standards Institute.

Subp. 8. **Banding.** "Banding" means a thick, rope-like cord of hypertrophic scarring resulting from burns.

Subp. 9. **Category.** "Category" means a permanent partial disability as described in this chapter and the corresponding percent of disability to the whole body for that permanent partial disability.

Subp. 10. **Chronic.** "Chronic" means the repeated or continuous occurrence of a specific condition or symptom.

Subp. 11. **Demonstrable degenerative changes.** "Demonstrable degenerative changes" means radiographic findings demonstrating the presence of degeneration of intervertebral disc or facet joints. Examples of demonstrable degenerative changes are disc space narrowing, small osteophytes, and facet joint hypertrophic changes.

Subp. 12. **Desirable level of weight.** "Desirable level of weight" means preferred weights in the tables created by the Metropolitan Life Insurance Company.

Subp. 13. **Disarticulation.** "Disarticulation" means an amputation occurring through a joint.

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Subp. 14. **Distance vision.** "Distance vision" means the ability to distinguish letters at a distance of 20 feet according to the Snellen and A.M.A. Charts.

Subp. 15. **Family member.** "Family member" means cohabitants and is not limited to those related by blood or marriage. In cases of institutionalization or similar nonhome environment, family member may include staff members who care for the individual on a regular basis.

Subp 16. **Fore-quarter.** "Fore-quarter" means the amputation of the upper extremity involving the scapula, clavicle, and muscles that attach to the chest.

Subp. 17. **Fusion.** "Fusion" means the surgical uniting of one vertebral segment to an adjoining vertebral segment.

Subp. 18. **Gastrostomy.** "Gastrostomy" means a surgical creation of a gastric fistula through the abdominal wall for the purpose of introducing food into the stomach.

Subp. 19. **Glossopharyngeal.** "Glossopharyngeal" means the ninth cranial nerve with sensory fibers to the tongue and pharynx. It affects taste and swallowing.

Subp. 20. **Gross motor weakness.** "Gross motor weakness" means total or partial loss as described in part 5223.0160.

Subp. 21. **Hypertrophic scar.** "Hypertrophic scar" means an elevated irregularly shaped mass of scar tissue.

Subp. 22. **Hypoglossal.** "Hypoglossal" means the motor nerve to the tongue. It is the 12th cranial nerve and carries impulses from the brain to the tongue, including movement of muscles and secretion of glands and motor movement.

Subp. 23. **Kenny scale.** "Kenny scale" means the Kenny self-care evaluation system in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence of Activities of Daily Living.

Subp. 24. **Laminectomy.** "Laminectomy" means the removal of part or all of the lamina of one vertebral segment, usually with associated disc excision.

Subp. 25. **Lethargy.** "Lethargy" means, in relation to a nervous system injury to the brain, that an individual is

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drowsy, but can be aroused.

Subp. 26. **Moderate referred shoulder and arm pain.** "Moderate referred shoulder and arm pain" means pain of an intensity necessitating decreased activity in order to avoid the pain. This pain is demonstrated in a dermatomal distribution into the shoulder and upper extremity.

Subp. 27. **Moderate partial dislocation.** "Moderate partial dislocation" means a loss of normal vertebral alignment of up to 50 percent of the vertebral body on the adjacent vertebral body associated with vertebral fractures.

Subp. 28. **Near vision.** "Near vision" means clearness of vision at the distance of 14 inches.

Subp. 29. **Nonpreferred extremity.** "Nonpreferred extremity" means the arm or leg not used dominantly, as for example, the left hand of a right-handed writer.

Subp. 30. **Objective clinical findings.** "Objective clinical findings" as used in part 5223.0070 means examination results which are reproducible and consistent. Examples of objective clinical findings are involuntary muscle spasms, consistent postural abnormalities, and changes in deep tendon reflexes.

Subp. 31. **Postural abnormality.** "Postural abnormality" means a deviation from normal posture, as found on anterior/posterior or lateral X-rays, that involves the spine and pelvis or segments of the spine or pelvis, such as kyphosis, lordosis, or scoliosis.

Subp. 32. **Preferred extremity.** "Preferred extremity" means the dominant leg or arm, as for example, the right arm of a right-handed person.

Subp. 33. **Presbycusis.** "Presbycusis" means a decline in hearing acuity that occurs with the aging process.

Subp. 34. **Pseudophakia.** "Pseudophakia" means that the crystalline lens of the eye has been replaced with a surgically implanted lens.

Subp. 35. **Self cares.** "Self cares" means bed activities, transfers, locomotion, dressing, personal hygiene, bowel and

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bladder, and feeding as described in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, pages 10-24.

Subp. 36. **Spinal stenosis.** "Spinal stenosis" means the narrowing of the spinal canal.

Subp. 37. **Spondylolisthesis.** "Spondylolisthesis" means the forward movement of one vertebral body of one of the lower lumbar vertebrae on the vertebrae below it or upon the sacrum.

Subp. 38. **Spondylolisthesis grade 1.** "Spondylolisthesis grade 1" means forward movement from zero to 25 percent of the vertebral body.

Subp. 39. **Spondylolisthesis grade 2.** "Spondylolisthesis grade 2" means forward movement from 25 to 50 percent of the vertebral body.

Subp. 40. **Spondylolisthesis grade 3.** "Spondylolisthesis grade 3" means movement from 50 to 75 percent of the vertebral body.

Subp. 41. **Spondylolisthesis grade 4.** "Spondylolisthesis grade 4" means forward movement from 75 to 100 percent of the vertebral body.

Subp. 42. **Stupor.** "Stupor" means, in relation to a nervous system injury to the brain, that a strong stimulus or pain is needed to arouse consciousness or response.

Subp. 43. **Tinnitus.** "Tinnitus" means a subjective sense of noises in the head or ringing in the ear for which there is no observable external cause.

Subp. 44. **Trigeminal.** "Trigeminal" means the mixed nerve with sensory fibers to the face, cornea, anterior scalp, nasal and oral cavities, tongue and supertentorial dura matter. It also has motor fibers to the muscles of mastication. It is the fifth cranial nerve.

Subp. 45. **Vertigo.** "Vertigo" means a sensation of moving around in space or having objects move about the person. It is the result of a disturbance of the equilibratory apparatus.

Subp. 46. **Vestibular.** "Vestibular" means the main division of the auditory nerve. It is the eighth cranial nerve

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and deals with equilibrium.

Subp. 47. **Wrinkling.** "Wrinkling" means small ridges on the skin formed by shrinking or contraction as a result of burns.

Subp. 48. **14/14.** "14/14" is a term used in the measurement of near vision. It is the clearness of vision at a distance of 14 inches. The numerator is the test distance in inches. The denominator is the distance at which the smallest letter on the A.M.A. card can be seen.

Subp. 49. **20/20 Snellen or A.M.A. Chart.** "20/20 Snellen or A.M.A. Chart" refers to a chart imprinted with block letters or numbers in gradually decreasing sizes, identified according to distances at which they are ordinarily visible. It is used in testing visual acuity. The numerator is the test distance in feet. The denominator is the distance at which the smallest letter discriminated by a patient would subtend five minutes of arc.

5223.0030 EYE SCHEDULE.

Subpart 1. **Complete loss of vision.** For complete loss of vision in both eyes, disability of the whole body is 85 percent. For complete loss of vision in one eye, disability of the whole body is 24 percent. In determining the degree of vision impairment and of whole body disability, subparts 2 to 6 shall be used.

Subp. 2. **Examination.** Disability shall not be determined until all medically acceptable attempts to correct the defect have been made. Prior to the final examination on which disability is to be determined, at least six months shall elapse after all visible inflammation has disappeared. In cases of disturbance of extrinsic ocular muscles, optic nerve atrophy, injury of the retina, sympathetic ophthalmia, and traumatic cataract, at least 12 months shall elapse before the final examination is made. Testing shall be conducted with corrective lenses applied, unless indicated otherwise in this part.

Subp. 3. **Maximum and minimum limits of primary coordinate factors of vision.** The primary coordinate factors of vision are central visual acuity, visual field efficiency, and ocular

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motility.

A. The maximum limit for each coordinate function is established in subitems (1) to (3):

(1) The maximum limit of central visual acuity is the ability to recognize letters or characters which subtend an angle of five minutes, each unit part of which subtends a one-minute angle at the distance viewed. A 20/20 Snellen or A.M.A. chart is 100 percent (maximum) central visual acuity for distance vision. 14/14 A.M.A. card is 100 percent (maximum) central visual acuity for near vision.

(2) The maximum visual field is defined as 500 degrees. It is the sum of the degrees in the eight principal meridians from the point of fixation to the outermost limits of visual perception and defines the area in which a three millimeter white target is visible at 33 centimeters. One hundred percent visual field efficiency is that visual field which extends from the point of fixation outward 85 degrees, down 65 degrees, down and in 50 degrees, inward 60 degrees, in and up 55 degrees, upward 45 degrees, and up and out 55 degrees.

(3) Maximum ocular motility is present if there is absence of diplopia in all parts of the field of binocular fixation, and if normal binocular motor coordination is present.

B. The minimum limit for each coordinate function is established in subitems (1) to (3):

(1) The minimum limit of central visual acuity is:

(a) for distance vision, 20/800 Snellen or A.M.A. chart; and

(b) for near vision, 14/560 A.M.A. card.

(2) The minimum limit for field vision is established as a concentric central contraction of the visual field to five degrees. Five degrees of contraction of the visual field reduces the visual efficiency of the eye to zero.

(3) The minimum limit for ocular motility is established by the presence of diplopia in all parts of the field of binocular fixation or by absence of binocular motor coordination. The minimum limit is 50 percent ocular motility

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efficiency.

Subp. 4. **Measurement of coordinate factors of vision and computation of partial loss.**

A. Central visual acuity shall be measured both for distance vision and for near vision, each eye being measured separately, both with and without correction. A Snellen or A.M.A. chart shall be used for distance vision and an A.M.A. card shall be used for near vision. Illumination shall be at least five footcandles.

(1) Table 1 shows the percentage of visual efficency corresponding to the notations for distance vision and for near vision. For test readings between those listed on the chart, round up from the midpoint to the nearest reading, and round down from below the midpoint.

Where distance vision is less than 20/200 and the A.M.A. chart is used, readings are at ten feet. The test reading is translated to the corresponding distance reading in Table 1 by multiplying both the numerator and the denominator of the test reading by two.

TABLE 1

Central Visual Acuity

A.M.A. Chart or Snellen Reading for Distance	A.M.A. Card Reading for Near	Percentage of Central Visual Acuity Efficiency
20/20	14/14	100.00
20/25	14/17.5	95.7
20/25.7	.....	95.0
20/30	14/21	91.5
20/32.1	.....	90.0
20/35	14/24.5	87.5
20/38.4	.....	85.0

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1	20/40	14/28	83.6
2	20/44.9	14/31.5	80.0
3			
4	20/50	14/35	76.5
5			
6	20/52.1	....	75.0
7	20/60	14/42	69.9
8			
9	20/60.2	.....	70.0
10	20/68.2	.....	65.0
11	20/70	14/49	64.0
12			
13	20/77.5	.....	60.0
14	20/80	14/56	58.5
15	20/86.8	.....	55.0
16			
17	20/90	14/63	53.4
18	20/97.5	.....	50.0
19	20/100	14/70	48.9
20			
21	20/109.4	.....	45.0
22	20/120	14/84	40.9
23	.....	14/89	38.4
24			
25	20/122.5	.....	40.0
26	20/137.3	.....	35.0
27	20/140	14/98	34.2
28			
29	20/155	.....	30.0
30	20/160	14/112	28.6
31	20/175	.....	25.0
32			
33	20/180	14/126	23.9
34	20/200	14/140	20.0
35	20/220	14/154	16.7
36			

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20/240	14/168	14.0
....	14/178	12.3
20/260	14/182	11.7
20/280	14/196	9.7
20/300	14/210	8.2
20/320	14/224	6.8
20/340	14/238	5.7
20/360	14/252	4.8
20/380	14/266	4.0
20/400	14/280	3.3
20/450	14/315	2.1
20/500	14/350	1.4
20/600	14/420	0.6
20/700	14/490	0.3
20/800	14/560	0.1

(2) The percentage of central visual acuity efficiency of the eye for distance vision is that percentage in Table 1 which corresponds to the test reading for distance vision for that eye.

(3) The percentage of central visual acuity efficiency of the eye for near vision is that percentage in Table 1 which corresponds to the test reading for near vision for that eye.

(4) The percentage of central visual acuity efficiency of the eye in question is determined as follows:

(a) Multiply by two the value determined for corrected near vision in subitem (3).

(b) Add the product obtained in unit (a) to the value determined for corrected distance vision in subitem (2).

(c) Divide the sum obtained in unit (b) by three.

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The following is an example of this calculation. If the central visual acuity efficiency for distance is 70 percent, and that for near is 25 percent, the percentage of central visual acuity efficiency for the eye is:

$$\frac{70\% + (2 \times 25)}{3} = 40\% \text{ central visual acuity efficiency}$$

(5) For traumatic aphakia, the corrected central visual acuity efficiency of the eye is 50 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

(6) For traumatic pseudophakia, the corrected central visual acuity efficiency of the eye is 80 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

B. For each eye, the extent of the field of vision shall be determined by perimetric test methods. A three millimeter white disk which subtends a 0.5-degree angle under illumination of not less than seven footcandles shall be used. For aphakia, a six millimeter white disk shall be used. The result shall be plotted on the visual field chart as illustrated in the A.M.A. Guides, page 144.

(1) The amount of radial contraction in the eight principal meridians shall be determined. The sum of the degrees of field vision remaining on these meridians, divided by 500, is the visual field efficiency of one eye, expressed as a percentage. If the eye has a concentric central contraction of the field to a diameter of five degrees, the visual efficiency is zero.

(2) When the impairment of field is irregular and not fairly disclosed by the eight radii, the determination shall

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be based on a number of radii greater than eight and the divisor in subitem (1) shall be changed accordingly.

(3) Where there is a loss of a quadrant or a half-field, the degrees of field vision remaining in each meridian are added to one-half the sum of the two boundary meridians.

C. Ocular motility shall be measured in all parts of the motor field with any useful correction applied.

(1) All directions of gaze shall be tested with use of a test light and without the addition of colored lenses or correcting prisms. The extent of diplopia is determined on the perimeter at 330 millimeters or on a tangent screen at a distance of one meter from the eye.

(2) Plot the test results on a motility chart as illustrated in the A.M.A. Guides, page 147.

(3) Determine the percentage loss of ocular motility from the motility chart. This percentage is assigned to the injured eye or, if both eyes are injured, to the eye with the greatest impairment of central visual acuity and field vision. The eye with the greatest impairment means the eye for which the product of central visual acuity efficiency and visual field efficiency is the least. For the purpose of calculation, a value of zero percent is deemed to be one percent. For the other eye, the percentage loss of ocular motility is zero.

(4) The percentage loss of ocular motility is subtracted from 100 percent to obtain the ocular motility efficiency. The minimum ocular motility efficiency of one eye is 50 percent.

Subp. 5. **Visual efficiency.** The visual efficiency of one eye is the product of the efficiency values of central visual acuity, of visual field, and of ocular motility. For the purpose of this calculation, these values shall be expressed as decimals and not as percentages; a value of zero percent is deemed to be one percent.

A. For example, if central visual acuity efficiency is 50 percent, visual field efficiency is 80 percent, and ocular

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motility efficiency is 100 percent, the visual efficiency of the eye is .50 times .80 times 1.00, equals 40 percent. If ocular motility efficiency is changed to 50 percent, the visual efficiency is .50 times .80 times .50, equals 20 percent.

B. Visual efficiency shall be adjusted as set in this item. Visual efficiency may not be less than zero percent. No adjustment for glasses or contacts shall be made in cases of aphakia or pseudophakia where the central visual efficiency was adjusted pursuant to subpart 4, item A, subitem (5) or (6).

(1) Visual efficiency shall be decreased by subtracting two percent for any of the following conditions which are present due to the injury: loss of color vision; loss of adaptation to light and dark; metamorphosis; entropion or ectropion uncorrected by surgery; lagophthalmos; epiphora; and muscle disturbances such as ocular ticks not included under diplopia.

(2) If glasses are required as a result of the injury, or if as a result of the injury the refractive error increases by at least one diopeter of sphere or of cylinder or of both, subtract five percent from the visual efficiency. Where the glasses contain prisms, subtract six percent.

(3) If a noncosmetic contact lens is required in one or both eyes as a result of the injury, subtract seven percent from the visual efficiency.

Subp. 6. **Procedure for determining whole body disability due to vision loss.** For each eye, subtract the percentage of visual efficiency determined in subpart 5 from 100 percent. The difference is the percentage impairment of each eye. The better eye has the lower percentage impairment. The poorer eye has the greater percentage impairment.

A. Multiply the percentage impairment of the better eye by three.

B. Add the percentage impairment of the poorer eye to the product obtained in item A.

C. Divide the sum obtained in item B by four.

D. The quotient obtained in item C is the percentage

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impairment of the visual system. Fractions shall be rounded to the nearest whole number percentage as provided in subpart 4, item A, subitem (1).

E. The percentage impairment of the visual system is translated to the percentage disability of the whole body by Table 2.

Table 2

Eye Schedule

Impairment of Visual System, %	Disability of Whole Man, %	Impairment of Visual System, %	Disability of Whole Man, %
0	0	45	42
1	1	46	43
2	2	47	44
3	3	48	45
4	4	49	46
5	5	50	47
6	6	51	48
7	7	52	49
8	8	53	50
9	8	54	51
10	9	55	52
11	10	56	53
12	11	57	54
13	12	58	55
14	13	59	56
15	14	60	57
16	15	61	58
17	16	62	59
18	17	63	59
19	18	64	60
20	19	65	61
21	20	66	62
22	21	67	63
23	22	68	64
24	23	69	65
25	24	70	66
26	25	71	67
27	25	72	68
28	26	73	69
29	27	74	70
30	28	75	71
31	29	76	72
32	30	77	73
33	31	78	74
34	32	79	75
35	33	80	76
36	34	81	76
37	35	82	77
38	36	83	78
39	37	84	79
40	38	85	80
41	39	86	81
42	40	87	82
43	41	88	83
44	42	89	84
		90 - 100	85

5223.0040 EAR SCHEDULE.

Subpart 1. **General.** For hearing loss, the maximum

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disability of the whole body is 35 percent. The procedures in subparts 2 to 7 shall be used to determine the extent of binaural hearing loss and of whole body disability.

Subp. 2. **Medical diagnosis.** Otological evaluation shall be the method for determining the degree of permanent partial hearing loss. The medical diagnosis shall include the following:

A. A complete history of occupational, military, and recreational noise exposure. This medical history shall include documentation of any previous hearing loss, if that information is available.

B. A complete physical examination of the ear.

C. An audiological evaluation which shall include pure tone air conduction and bone conduction testing.

Subp. 3. **Standards for audiometric calibration and test environment.** To ensure accurate measurement of hearing loss, the following standards shall be observed in conducting the tests required in subpart 2:

A. The audiometer used to measure hearing loss shall be calibrated to meet the specifications of ANSI S3.6-1969 (R1973), Specifications for Audiometers. The following are also required:

(1) biological or electroacoustical calibration checks of the audiometer shall be performed monthly;

(2) electroacoustical calibration shall be performed annually to certify the audiometer to the ANSI standard in this item; and

(3) the calibration records shall be preserved and shall be provided upon request.

B. Audiometric test rooms or booths shall meet the specifications of ANSI S3.1-1977, Criteria for Permissible Ambient Noise during Audiometric Testing.

Subp. 4. **Waiting period for final evaluation of hearing loss.** A waiting period of at least three months shall elapse between the date of the occurrence of the noise injury and the final evaluation of the permanent partial hearing loss.

Subp. 5. **Procedure for determining disability of whole**

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body due to hearing loss. The binaural hearing loss is determined as follows:

A. The calculation for the percent of binaural hearing loss consists of the following steps:

(1) For each ear, test the hearing threshold levels at the four frequences of 500, 1,000, 2,000, and 3,000 Hertz.

(2) For each ear, determine the average four-frequency hearing level. The average four-frequency hearing level is one-fourth of the sum of the threshold levels at each of the four tested frequencies. The average four-frequency hearing level is expressed in decibels.

(3) For each ear, subtract 25 decibels from the average four-frequency hearing level for that ear. The remainder, expressed in decibels, is the adjusted average four-frequency hearing level.

(4) For each ear, multiply the adjusted average four-frequency hearing level by 1.5 percent. The product is the monaural hearing loss, expressed as a percentage. A product less than zero percent is deemed to be zero. A product greater than 100 percent is deemed to be 100 percent.

(5) Considering both ears, compare the monaural hearing losses as determined in subitem (4). The ear with the smaller monaural hearing loss is the better ear. The ear with the larger monaural hearing loss is the poorer ear.

(6) Multiply the monaural hearing loss of the better ear by five, add this product to the monaural hearing loss of the poorer ear, and divide the sum by six. The quotient is the binaural hearing loss, expressed as a percentage. The formula is:

$$\frac{(5 \times \text{monaural hearing loss of better ear}) + (\text{monaural hearing loss of poorer ear})}{6} = \text{percent binaural hearing loss}$$

B. The calculation of the percent of binaural hearing loss is illustrated by the following examples.

Example 1

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	500 Hertz	1,000 Hertz	2,000 Hertz	3,000 Hertz
Right ear	15	25	45	55
Left ear	30	45	60	85

a. Calculation of the average four-frequency hearing level:

$$\text{Right ear} = \frac{15 + 25 + 45 + 55}{4} = \frac{140}{4} = 35 \text{ decibels}$$

$$\text{Left ear} = \frac{30 + 45 + 60 + 85}{4} = \frac{220}{4} = 55 \text{ decibels}$$

b. Calculation of adjusted average four-frequency hearing level:

Right ear = 35 decibels - 25 decibels = 10 decibels;
Left ear = 55 decibels - 25 decibels = 30 decibels;

c. Calculation of monaural hearing loss:

Right ear = 10 x 1.5% = 15%
Left ear = 30 x 1.5% = 45%

d. Calculation of binaural hearing loss:

$$\frac{(15\% \times 5) + 45\%}{6} = 20 \text{ percent binaural hearing loss}$$

Example 2

	500 Hertz	1,000 Hertz	2,000 Hertz	3,000 Hertz
Right ear	20	25	30	35
Left ear	30	45	60	85

a. Calculation of average four-frequency hearing level.

$$\text{Right ear} = \frac{20 + 25 + 30 + 35}{4} = 25 \text{ decibels}$$

$$\text{Left ear} = \frac{30 + 45 + 60 + 85}{4} = 55 \text{ decibels}$$

b. Calculation of adjusted average four-frequency hearing level.

Right ear = 25 decibels - 25 decibels = 0 decibels
Left ear = 55 decibels - 25 decibels = 30 decibels

c. Calculation of monaural hearing loss:

Right ear = 0 x 1.5 percent = 0
Left ear = 30 x 1.5 percent = 45 percent

d. Calculation of binaural hearing loss:

$$\frac{(0\% \times 5) + 45\%}{6} = 7.5 \text{ percent binaural hearing loss}$$

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C. The binaural hearing loss is translated to a percentage of disability of the whole body by the ear schedule set forth below:

EAR SCHEDULE

Binaural Hearing Loss, Percent	Disability of Whole Body Percent
0 - 1.7	0
1.8 - 4.2	1
4.3 - 7.4	2
7.5 - 9.9	3
10.0 - 13.1	4
13.2 - 15.9	5
16.0 - 18.8	6
18.9 - 21.4	7
21.5 - 24.5	8
24.6 - 27.1	9
27.2 - 30.0	10
30.1 - 32.8	11
32.9 - 35.9	12
36.0 - 38.5	13
38.6 - 41.7	14
41.8 - 44.2	15
44.3 - 47.4	16
47.5 - 49.9	17
50.0 - 53.1	18
53.2 - 55.7	19
55.8 - 58.8	20
58.9 - 61.4	21
61.5 - 64.5	22
64.6 - 67.1	23
67.2 - 70.0	24
70.1 - 72.8	25
72.9 - 75.9	26
76.0 - 78.5	27
78.6 - 81.7	28
81.8 - 84.2	29
84.3 - 87.4	30
87.5 - 89.9	31
90.0 - 93.1	32
93.2 - 95.7	33
95.8 - 98.8	34
98.9 -100.0	35

Subp. 6. **Presbycusis.** The calculation of the binaural hearing loss shall not include an additional adjustment for presbycusis.

Subp. 7. **Tinnitus.** No additional percentage of permanent partial disability for hearing loss shall be allowed for tinnitus.

5223.0050 SKULL DEFECTS.

Subpart 1. **Skull depressions.** For skull defects the

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percent of disability of the whole body is provided by the following schedule:

	Unfilled defect Percent	Filled defect Percent
0 - 1-1/2 square inches	0	0
1-1/2 - 2-1/2 square inches	5	0
2-1/2 - 4 square inches	10	2
4 - 6-1/2 square inches	15	3
6-1/2 or more square inches	20	5

Subp. 2. **Skull fractures.** Skull fractures are:

A. Basilar skull fracture with persistent spinal fluid leak, 20 percent.

B. Basilar skull fracture without cerebrospinal fluid leak, 0 percent.

5223.0060 CENTRAL NERVOUS SYSTEM.

Subpart 1. **General.** For permanent partial disability of the central nervous system the percentage of disability of the whole body is as provided in subparts 2 to 9.

Subp. 2. **Trigeminal nerve.** Permanent partial disability of the trigeminal nerve is a disability of the whole body as follows:

A. partial unilateral sensory loss, 3 percent;

B. complete unilateral sensory loss, 5 percent;

C. partial bilateral sensory loss, 10 percent;

D. complete bilateral sensory loss, 25 percent;

E. intractable trigeminal neuralgia, 20 percent;

F. atypical facial pain, 5 percent;

G. partial unilateral motor loss, 2 percent;

H. complete unilateral motor loss, 5 percent;

I. partial bilateral motor loss, 10 percent; or

J. complete bilateral motor loss, 30 percent.

Subp. 3. **Facial nerve.** Permanent partial disability of the facial nerve is a disability of the whole body as follows:

A. total loss of taste, 3 percent;

B. partial unilateral motor loss, 25 to 75 percent of function lost, 3 percent;

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C. unilateral motor loss, more than 75 percent of function lost, 10 percent;

D. partial bilateral motor loss, 25 to 75 percent of function lost, 10 percent; or

E. bilateral motor loss, more than 75 percent of function lost, 20 percent.

Subp. 4. **Vestibular loss with vertigo or disequilibrium.** Vestibular loss with vertigo or disequilibrium is a disability of the whole body as follows:

A. a score of 24 to 28 on the Kenny scale, and restricted in activities involving personal or public safety, such as operating a motor vehicle or riding a bicycle, 10 percent;

B. a score of 16 to 28 on the Kenny scale, and ambulation impaired due to equilibrium disturbance, 30 percent;

C. a score of 10 to 16 on the Kenny scale, 40 percent; or

D. a score of 0 to 10 on the Kenny scale, 70 percent.

Subp. 5. **Glossopharyngeal, vagus and spinal accessory nerves.** Permanent partial disability to glossopharyngeal, vagus and spinal accessory nerves is a disability of the whole body as follows:

A. Swallowing impairment caused by disability to any one or more of these nerves:

(1) diet restricted to semi-solids, 10 percent;

(2) diet restricted to liquids, 25 percent; or

(3) diet by tube feeding or gastrostomy, 50 percent.

B. Mechanical disturbances of articulation due to disability to any one or more of these nerves:

(1) 95 percent or more of words are understood by those who are not family members and others outside the immediate family, but speech is distorted, 5 percent;

(2) 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by those who are not family members, 10 percent;

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(3) 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;

(4) more than 50 percent of words are understood by family members, 20 percent;

(5) less than 50 percent of words are understood by family members, 25 percent; or

(6) 10 percent or less of words are understood by family members, 30 percent.

Subp. 6. **Hypoglossal nerve.** Permanent partial disability of hypoglossal nerve is a disability of the whole body as follows:

A. Bilateral paralysis; swallowing impairment:

(1) diet restricted to semi-solids, 10 percent;

(2) diet restricted to liquids, 25 percent; and

(3) diet by tube feeding or gastrostomy, 50 percent.

B. Mechanical disturbances of articulation:

(1) 95 percent or more of words are understood by family members and others outside the immediate family, but speech is distorted, 5 percent;

(2) 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by nonfamily members, 10 percent;

(3) 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;

(4) more than 50 percent of words are understood by family members, 20 percent;

(5) less than 50 percent of words are understood by family members, 25 percent; or

(6) 10 percent or less of words are understood by family members, 30 percent.

Subp. 7. **Spinal cord.** To rate under this subpart, determine the disability to the lower extremities, upper extremities, respiration, urinary bladder, anorectal, and sexual functions as follows. The percentage of whole body disability under this subpart is determined by combining the disabilities

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under items A to F in the manner described in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

A. A permanent partial disability in the use of lower extremities is a disability of the whole body as follows:

(1) can rise to a standing position and can walk, but has difficulty walking onto elevations, grades, steps, and distances, 15 percent;

(2) can stand but can walk only on a level surface, 30 percent;

(3) can stand but cannot walk, 45 percent; and

(4) can neither stand nor walk, 65 percent.

B. Permanent partial disability in the use of upper extremities is a disability of the whole body as follows:

Whole Body Disability, Percentages

	Preferred extremity	Nonpreferred extremity	Both
score of 24 to 28 on Kenny scale, but some difficulty with digital dexterity	10	5	15
score of 16 to 28 on Kenny scale, but no digital dexterity	20	10	30
score of 10 to 16 on Kenny scale	40	40	50
score of 0 to 10 on Kenny scale	70	70	85

C. Permanent partial disability of the respiratory function is a disability of the whole body as follows:

(1) difficulty only where extra exertion is required, such as running, climbing stairs, heavy lifting, or carrying loads, 10 percent;

(2) restricted to limited walking, confined to one's own home, 35 percent;

(3) restricted to bed, 75 percent; and

(4) has no spontaneous respiration, 95 percent.

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D. Permanent partial disability of the bladder is a disability of the whole body as set forth below. Evaluative procedures to be followed are in part 5223.0220, subpart 2.

(1) impaired voluntary control evidenced by urgency or hesitancy, but continent without collecting devices, 10 percent;

(2) impaired voluntary control, incontinent requiring external collecting devices, 20 percent; or

(3) impaired voluntary control, incontinent requiring internal collecting or continence devices, 30 percent.

E. The permanent partial disability of the anorectal function is a disability of the whole body as follows:

(1) impaired voluntary control with urgency, 10 percent;

(2) impaired voluntary control without reflex regulation, 20 percent; or

(3) impaired voluntary control, incontinent without diversion, 30 percent.

F. Permanent partial disability of sexual function is a disability of the whole body as follows:

(1) Male: rate under part 5223.0220, subpart 6.

(2) Female: rate under part 5223.0220, subpart 9.

Subp. 8. **Brain injury.** Supporting objective evidence of structural injury, neurological deficit, or psychomotor findings is required to substantiate the permanent partial disability. Permanent partial disability of the brain is a disability of the whole body as follows:

A. Communications disturbances, expressive:

(1) mild disturbance of expressive language ability not significantly impairing ability to be understood, such as mild word-finding difficulties, mild degree of paraphasias, or mild dysarthria, 10 percent;

(2) severe impairment of expressive language ability, but still capable of functional communication with the use of additional methods such as gestures, facial expression, writing, word board, or alphabet board, 35 percent; or

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(3) unable to produce any functional expressive language, 70 percent.

B. Communication disturbances, receptive:

(1) mild impairment of comprehension of aural speech, but comprehension functional with the addition of visual cues such as gestures, facial expressions, or written material, 40 percent;

(2) some ability to comprehend language is present, but significant impairment even with use of visual cues such as gestures, facial expressions, and written material, 60 percent; or

(3) no evidence of functional comprehension of language, 90 percent.

C. Complex integrated cerebral function disturbances must be determined by medical observation and organic dysfunctions supported by psychometric testing. Functional overlay or primary psychiatric disturbances shall not be rated under this part. The permanent partial disabilities are as follows:

(1) mild impairment of higher level cognitive function or memory, but able to live independently and function in the community as evidenced by independence in activities such as shopping and taking a bus, 20 percent;

(2) same as subitem (1), and also requires supporting devices and direction to carry out limited vocational tasks, 30 percent;

(3) moderate impairment of memory, judgment, or other higher level cognitive abilities, can live alone with some supervision such as for money management, some limitation in ability to function independently outside the home in activities such as shopping and traveling, 50 percent;

(4) moderately severe impairment of memory, judgment, or other higher cognitive abilities, unable to live alone and some supervision required at all times, but able to perform self cares independently, 70 percent; or

(5) severe impairment of memory, judgment, or

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other higher cognitive abilities such that constant supervision and assistance in self cares are required, 95 percent.

D. Emotional disturbances and personality changes must be substantiated by medical observation and by organic dysfunction supported by psychometric testing. Permanent partial disability is a disability of the whole body as follows:

(1) only present under stressful situation such as losing one's job, getting a divorce, or a death in the family, 10 percent;

(2) present at all times but not significantly impairing ability to relate to others, to live with others, or to perform self cares, 30 percent;

(3) present at all times in moderate to severe degree, minimal ability to live with others, some supervision required, 65 percent; or

(4) severe degree of emotional disturbance which, because of danger to self and others, requires continuous supervision, 95 percent. -

E. Psychotic disorders, as described in D.S.M. III, not caused by organic dysfunction and substantiated by medical observation:

(1) only present under stressful situation, such as losing one's job, getting divorced, a death in the family, 10 percent;

(2) present at all times but not significantly impairing ability to relate to others, live with others, or perform self cares, 30 percent;

(3) present at all times in moderate to severe degree significantly affecting ability to live with others, and requiring some supervision, 65 percent; or

(4) severe degree of emotional disturbance which, because of danger to self or others, requires continuous supervision, 95 percent.

F. Consciousness disturbances; permanent partial disability of the whole body is as follows:

(1) mild or intermittent decreased level of

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consciousness manifested by periodic mild confusion or lethargy, a score of 16 to 28 on the Kenny scale, 40 percent;

(2) moderate intermittent or continuous decreased level of consciousness manifested by a moderate level of confusion or lethargy, and a score of 10 to 16 on the Kenny scale, 70 percent;

(3) severe decreased level of consciousness manifested as stupor with inability to function independently, and a score of 0 to 10 on the Kenny scale, 95 percent; or

(4) comatose or persistent vegetative state, 99 percent.

G. Motor dysfunction, movement disorder, paralysis, spasticity, sensory loss, or neglect. Where these impairments are due to brain or brain stem injury, rate as provided in subpart 7, items A and B.

H. Other impairments; impairments of respiration, urinary bladder function, anorectal function, or sexual function due to brain or brain stem injury are rated as provided in subpart 7, items C to F.

I. Epilepsy; permanent partial disability due to epilepsy is a disability of the whole body as follows:

(1) well controlled, on medication for one year or more, able to enter work force but with restrictions preventing operation of motor vehicles or dangerous machinery and climbing above six feet in height, 10 percent;

(2) seizures occurring at least once a year, but not severely limiting ability to live independently, 20 percent;

(3) seizures occurring at least six times per year, some supervision required, 40 percent;

(4) seizures poorly controlled with at least 15 seizures per year, supervision required, protective care required with activities restricted, 75 percent; or

(5) frequency of seizures requires continuous supervision and protective care, activities restricted, unable to perform self cares, 95 percent.

J. Headaches; permanent partial disability due to

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vascular headaches with nausea or vomiting is a five percent disability of the whole body.

K. Total loss of taste, 3 percent.

L. Traumatic head injury, complete and total loss of smell, supported by objective examination, 3 percent.

5223.0070 MUSCULO-SKELETAL SCHEDULE; BACK.

Subpart 1. **Lumbar spine.** The spine rating is inclusive of leg symptoms except for gross motor weakness, bladder or bowel dysfunction, or sexual dysfunction. Permanent partial disability of the lumbar spine is a disability of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.

(3) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.

(a) single vertebral level, 7 percent; or

(b) multiple vertebral levels, 10.5 percent.

(4) pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings.

(a) spondylolisthesis grade I, no surgery, 7 percent;

(b) spondylolisthesis grade II, no surgery, 14 percent; or

(c) spondylolisthesis grade III or IV,

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without fusion, 24.5 percent.

B. Herniated intervertebral disc, single vertebral level:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 9 percent.

(b) back and specific radicular pain present with objective neurologic findings; and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent;

(2) condition treated by surgery:

(a) surgery or chemonucleolysis with excellent results such as mild low back pain, no leg pain, and no neurologic deficit, 9 percent;

(b) surgery or chemonucleolysis with average results such as mild increase in symptoms with bending or lifting, and mild to moderate restriction of activities related to back and leg pain, 11 percent;

(c) surgery or chemonucleolysis with poor surgical results such as persistent or increased symptoms with bending or lifting, and major restriction of activities because of back and leg pain, 13 percent; or

(d) multiple operations on low back with poor surgical results such as persisting or increased symptoms of back and leg pain, 15 percent;

(3) recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery or chemonucleolysis, add five percent to subitem (2);

(4) herniated intervertebral disc at a new vertebral level other than the previously treated herniated intervertebral disc, calculate rating the same as subitems (1) and (2); or

(5) second herniated disc at adjacent level

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treated concurrently, add five percent to subitem (1) or (2).

C. Spinal stenosis, central or lateral, proven by computerized axial tomography or myelogram:

(1) mild symptoms such as occasional back pain with athletic activities or repetitive bending or lifting, leg pain with radicular symptoms, one vertebral level and no surgery, 14 percent; or

(2) severe spinal stenosis with bilateral leg pain requiring decompressive laminectomy, single vertebral level, with or without surgery (if multiple vertebral levels, add five percent per vertebral level), 18 percent.

D. Spinal fusion surgery for single vertebral level with or without laminectomy, 17.5 percent. Add five percent for each additional vertebral level.

E. Fractures:

(1) vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, 4 percent;

(2) vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent;

(3) vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent;

(4) vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent radicular pain, 12 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;

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(5) severe dislocation:

(a) normal reduction with surgical fusion, 12 percent;

(b) poor reduction with fusion, persistent radicular pain, 17.5 percent;

Subp. 2. **Cervical spine.** The spine rating is inclusive of arm symptoms except for gross motor weakness; sensory loss; and bladder, bowel, or sexual dysfunction. Bladder, bowel, or sexual dysfunction must be rated as provided in part 5223.0060, subpart 7. Permanent partial disability of the cervical spine is a disability of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.

(3) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.

(a) Single vertebral level, 7 percent; or

(b) Multiple vertebral levels, 10.5 percent.

B. Herniated intervertebral disc, single vertebral level:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 9 percent.

(b) Neck and specific radicular pain present with objective neurologic findings; and X-ray or computerized

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axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent.

(2) Condition treated by surgery:

(a) Surgery with excellent results such as mild neck pain, no arm pain, and no neurologic deficit, 9 percent.

(b) Surgery with average results such as mild increase in symptoms with neck motion or lifting, and mild to moderate restriction of activities related to neck and arm pain, 11 percent.

(c) Surgery with poor surgical results such as persistent or increased symptoms with neck motion or lifting, and major restriction of activities because of neck and arm pain, 13 percent.

(d) Multiple operations on neck with poor surgical results such as persisting or increased symptoms of neck and arm pain, 15 percent.

(3) Recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery, add five percent to subitem (2).

(4) Herniated intervertebral disc at a new vertebral level other than the previously treated herniated intervertebral disc, calculate rating the same as subitems (1) and (2).

(5) Second herniated disc at adjacent level treated concurrently, add five percent to subitem (1) or (2).

C. Spinal stenosis, proven by computerized axial tomography or myelogram.

(1) With myelopathy verified by objective neurologic findings, no loss of function, 14 percent.

(2) Loss of function: the rate provided in part 5223.0060, subpart 7.

D. Fusion of a single vertebral level with or without a laminectomy, 11.5 percent. Add five percent for each additional vertebral level.

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E. Fracture:

(1) vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, loss of motion neck and all planes, approximately 75 percent normal range of motion neck with pain, 6 percent;

(2) vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, loss of motion in the neck in all planes, approximately 50 percent normal range of motion in neck with pain, 14 percent;

(3) vertebral compression with a decrease of more than 25 percent of vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, loss of motion in the neck in all planes, approximately 50 percent normal range of motion in neck with pain, 19 percent;

(4) vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent pain, 12 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;

(5) severe dislocation:

(a) normal reduction with surgical fusion, 12 percent;

(b) poor reduction with fusion, persistent radicular pain, 17.5 percent.

Subp. 3. **Thoracic spine.** The spine rating is inclusive of all symptoms including radicular gross motor weakness and sensory loss, but excluding spinal cord injury. Permanent partial disability of the thoracic spine is a disability of the

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whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with chronic muscle spasm. The chronic muscle spasm is substantiated by objective clinical findings and is associated with demonstrable degenerative changes, single or multiple level, 3.5 percent.

B. Herniated intervertebral disc, symptomatic:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 3 percent.

(b) Specific radicular pain present with objective neurologic findings, and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc, and no surgery is performed for treatment, 5 percent.

(2) Condition treated by surgery:

(a) surgery with excellent results such as mild thoracic pain, no radicular pain, and no neurological deficit, 5 percent;

(b) surgery with poor surgical results such as persistence of increased symptoms with lifting, and major restriction of activities, 10 percent.

C. Fractures:

(1) Vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, 4 percent.

(2) Vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent.

(3) Vertebral compression fracture, with a

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decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent.

(4) Vertebral fracture with involvement of posterior elements with x-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent pain, with mild motor and sensory manifestations, 17.5 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent.

(5) Severe dislocation, normal reduction with surgical fusion:

(a) No residual motor or sensory changes, 12 percent;

(b) Poor reduction with fusion, persistent radicular pain, motor involvement, 17.5 percent.

5223.0080 MUSCULO-SKELETAL SCHEDULE; AMPUTATIONS OF UPPER EXTREMITY.

Permanent partial disability due to amputation of upper extremities is a disability of the whole body as follows:

A. forequarter amputation, 70 percent;

B. disarticulation at shoulder joint, 60 percent;

C. amputation of arm above deltoid insertion, 60 percent;

D. amputation of arm between deltoid insertion and elbow joint, 57 percent;

E. disarticulation at elbow joint, 57 percent;

F. amputation of forearm below elbow joint proximal to insertion of biceps tendon, 57 percent;

G. amputation of forearm below elbow joint distal to insertion of biceps tendon, 54 percent;

H. disarticulation at wrist joint, 54 percent;

I. midcarpal or midmetacarpal amputation of hand, 54 percent;

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J. amputation of all fingers except thumb at metacarpophalangeal joints, 32.5 percent;

K. amputation of thumb:

(1) at metacarpophalangeal joint or with resection of metacarpal bone, 21.5 percent;

(2) at interphalangeal joint or through proximal phalynx, 16 percent;

(3) from interphalangeal joint to midportion distal phalynx, 13 percent;

(4) from mid-distal phalynx, distal, 6 percent;

L. amputation of index finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 13.5 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 11 percent;

(3) at distal interphalangeal joint to middistal phalynx, 5 percent;

(4) from middistal phalynx, distal, 2.5 percent;

M. amputation of middle finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 11 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 9 percent;

(3) at distal interphalangeal joint to middistal phalynx, 5 percent;

(4) from middistal phalynx, distal, 2.5 percent;

N. amputation of ring finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 5.5 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 4 percent;

(3) at distal interphalangeal joint to middistal phalynx, 3 percent;

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(4) from middistal phalynx, distal, 1.5 percent;

O. amputation of little finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 3 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 2 percent;

(3) at distal interphalangeal joint to middistal phalanx, 1 percent;

(4) from middistal phalynx, distal, 0.5 percent.

5223.0090 MUSCULO-SKELETAL SCHEDULE; SENSORY LOSS, UPPER EXTREMITIES.

Subpart. 1. **General.** For sensory loss to the upper extremities resulting from nerve injury, the disability of the whole body is set forth in subparts 2 to 4. For the portion of the body described in subpart 2, there must be a total loss of the sensory function. Carpal tunnel syndrome is rated under part 5223.0130, subpart 3, items E and F.

Subp. 2. **Total sensory loss.** Sensory loss, complete:

A. median function at wrist, 22.5 percent;

B. ulnar function at wrist, 11 percent;

C. radial function at wrist, 5.5 percent;

D. medial antebrachial cutaneous, 3 percent;

E. medial brachial cutaneous, 3 percent;

F. loss of thumb, whole, 11 percent;

(1) radial digital nerve, 4 percent;

(2) ulnar digital nerve, 6.5 percent;

G. index finger, whole, 5.5 percent;

(1) radial digital nerve, whole, 3.5 percent;

(2) ulnar digital nerve, 2 percent;

H. long finger, whole, 5.5 percent;

(1) radial digital nerve, 3.5 percent;

(2) ulnar digital nerve, 2 percent;

I. ring finger, whole, 3 percent;

(1) radial digital nerve, 2 percent;

(2) ulnar digital nerve, 1 percent;

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J. little finger, whole, 3 percent;

(1) radial digital nerve, 1 percent;

(2) ulnar digital nerve, 2 percent;

K. sensory loss distal to proximal interphalangeal joint, 50 percent of the value of entire digital nerve as set forth in subpart 2, either radial or ulnar as applicable;

L. sensory loss distal to one-half distal phalanx, 25 percent of entire digital nerve as set forth in subpart 2.

Subp. 3. **Quality of sensory loss in hand.** The levels of sensory loss and the corresponding disabilities of the whole body are measured as follows:

A. minimal, 2-point discrimination at 6 millimeters or less, 0 percent;

B. moderate, 2-point discrimination greater than 6 millimeters, 1/2 of value in subpart 2;

C. severe, 2-point discrimination at greater than 10 millimeters, 3/4 of value in subpart 2;

D. total, 2-point discrimination at greater than 15 millimeters, same value as in subpart 2.

Subp. 4. **Causalgia.** When objective medical evidence shows persistent causalgia despite treatment, there is loss of sensory and motor function, loss of joint function, and inability to use the extremity in any useful manner. The permanent partial disability to the member, rating from the most proximal joint involved, and the percentage disability of the whole body is 50 percent of that in part 5223.0080, subpart 1.

5223.0100 MUSCULO-SKELETAL SCHEDULE; MOTOR LOSS OR MOTOR AND SENSORY LOSS, UPPER EXTREMITIES.

Subpart 1. **Total or complete loss.** Total or complete loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the ~~lower~~ upper FF 2a extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

A. Motor loss, complete:

(1) median nerve above mid forearm, 30 percent;

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(2) median nerve below mid forearm, 19 percent;

(3) radial nerve, 19 percent;

(4) ulnar nerve above mid forearm, 19 percent;

(5) ulnar nerve below mid forearm, 13.5 percent.

B. Complete motor and sensory loss:

(1) median nerve above mid forearm, 40.5 percent;

(2) median nerve below mid forearm, 35 percent;

(3) radial nerve, 27 percent;

(4) ulnar nerve above mid forearm, 21.5 percent;

(5) ulnar nerve below mid forearm, 16 percent.

C. Complete loss of motor function:

(1) brachial plexus complete, 60 percent:

(a) upper trunk C5-6, 47 percent;

(b) mid trunk C7, 23 percent;

(c) lower trunk C8-T1, 46 percent;

(2) anterior thoracic, 3 percent;

(3) axillary nerve, 23 percent;

(4) dorsal scapular, 3 percent;

(5) long thoracic, 9 percent;

(6) musculo cutaneous, 17.5 percent;

(7) subscapular, 3 percent;

(8) suprascapular, 11.5 percent;

(9) thoraco dorsal, 6 percent.

D. Complete loss of function, motor and sensory:

(1) C-5 root, 11 percent;

(2) C-6 root, 12 percent;

(3) C-7 root, 11 percent;

(4) C-8 root, 13 percent.

Subp. 2. **Partial loss.** Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at subpart 1.

5223.0110 MUSCULO-SKELETAL SCHEDULE; SHOULDER.

Subpart 1. **General.** For permanent partial disability to the shoulder, disability of the whole body is as in subparts 2 and 3.

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Subp. 2. **Range of motion.**

A. Total ankylosis in optimum position, abduction 60 degrees, flexion ten degrees, rotation, neutral position, 30 percent;

B. total ankylosis in mal-position, grade upward to 50 percent;

C. mild limitation of motion: no abduction beyond 90 degrees, rotation no more than 40 degrees with full flexion and extension, 3 percent;

D. moderate limitation of motion: no abduction beyond 60 degrees, rotation no more than 20 degrees, with flexion and extension limited to 30 degrees, 12 percent;

E. severe limitation of motion: no abduction beyond 25 degrees, rotation no more than ten degrees, flexion and extension limited to 20 degrees, 30 percent;

Subp. 3. **Procedures or conditions.**

A. Acromio-clavicular separation of the following severity:

(1) grade 1, 0 percent;

(2) grade 2, 3 percent;

(3) grade 3, 6 percent.

B. anterior or posterior shoulder dislocation, no surgery, single episode, 3 percent.

C. recurrent dislocation, at least three times in six months, 10 percent.

D. repair recurrent shoulder dislocation:

(1) no loss of motion, 6 percent;

(2) if mild limitation of motion, 9 percent;

(3) if moderate or severe limitation of motion, rate as in subpart 2, items D and E.

E. resection distal end of clavicle, 3 percent.

F. humeral shaft fracture, normal range of motion both joints, 0 percent.

G. humeral shaft fracture, open reduction, mild restriction of shoulder and elbow motion, 6 percent. For moderate or severe limitation of motion, rate as in subpart 2,

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items D and E.

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H. surgical neck fracture, healed, ~~mild~~ no loss of motion, 0 percent; if loss of motion, rate as in subpart 2.

I. greater tuberosity fracture, normal range of motion, 0 percent. If loss of motion, rate as in subpart 2.

5223.0120 MUSCULO-SKELETAL SCHEDULE; ELBOW.

Subpart 1. **General.** Permanent partial disability of the elbow is disability of the whole body as in subparts 2 and 3.

Subp. 2. **Range of motion.** Flexion and extension of forearm is 85 percent of the arm. Rotation of the forearm is 15 percent of the arm.

A. Total ankylosis in optimum position approximating midway between 90 degrees flexion and 180 degrees extension, a 45-degree angle, 30 percent.

B. Total ankylosis in mal-position, 40 percent.

C. Limitation of motion:

(1) mild, motion limited from ten degrees flexion to 100 degrees of further flexion, 6 percent;

(2) moderate, motion limited from 20 degrees flexion to 75 degrees of further flexion, 12 percent;

(3) severe, motion limited from 45 degrees flexion to 90 degrees of further flexion, 21 percent;

D. Flail elbow, pseudarthrosis above joint line, wide motion but very unstable, 39 percent.

E. Resection head of radius, 9 percent.

Subp. 3. **Procedures or conditions.**

A. Radial or ulnar shaft fracture, full motion, 0 percent;

B. radial or ulnar fracture, open reduction, mild limitation of motion as defined in subpart 2, item C, 9 percent;

C. olecranon fracture, no loss of motion, 0 percent;

D. olecranon fracture, open reduction internal fixation, mild limitation of motion as defined in subpart 2, item C, 6 percent;

E. epicondylar fracture, no loss of motion, 0 percent;

F. epicondylar fracture, mild loss of motion as

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defined in subpart 2, item C, 6 percent;

G. release medial or lateral epicondyle, 2 percent;

H. ulnar nerve transposition, 2 percent.

5223.0130 MUSCULO-SKELETAL SCHEDULE; WRIST.

Subpart 1. **General.** Permanent partial disability of wrist is disability of the whole body as set in subparts 2 and 3.

Subp. 2. **Range of motion.**

A. Excision distal end of ulna, flexion and extension credited with 75 percent of hand, and rotation 25 percent of hand, 5 percent;

B. total ankylosis in optimum position, 19 percent;

C. total ankylosis in mal-position of extreme flexion or extension, 25 percent;

D. limitation of motion:

(1) mild, rotation normal, loss of 15 degrees palmar flexion and loss of 20 degrees dorsiflexion, 5 percent;

(2) moderate, rotation limited to 60 degrees in pronation-supination, loss of 25 degrees palmar flexion, loss of 30 degrees dorsiflexion, 10 percent; or

(3) severe, rotation limited to 30 degrees in pronation-supination, palmer flexion less than 25 degrees, dorsi-flexion less than 30 degrees, 15 percent.

Subp. 3. **Procedure or conditions.**

A. Colles/Smith, extraarticular:

(1) no loss of motion, 0 percent;

(2) mild loss of motion as defined in subpart 2, item D, subitem (1), 3 percent.

B. Colles/Smith/Barton, intraarticular.

(1) no loss of motion, 0 percent;

(2) mild loss of motion as defined in subpart 2, item D, subitem (1), 6 percent;

(3) moderate loss of motion as defined in subpart 2, item D, subitem (2), 10 percent.

C. Carpal bone fracture, no loss of motion, 3 percent.

D. Carpal dislocation, mild loss of motion as defined in subpart 2, item D, subitem (1), 6 percent.

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E. Carpal tunnel release, 0.5 percent.

F. Carpal tunnel release with moderate paresthesias, 3 percent.

G. DeQuervain's release, 0 percent.

H. Ganglion excision, 0 percent.

I. Scaphoid graft, 3 percent.

5223.0140 MUSCULO-SKELETAL SCHEDULE; FINGERS.

Subpart 1. **General.** Permanent partial disability of fingers is a disability of the whole body as set in subpart 2.

Subp. 2. **Ankylosis of joints.**

A. Thumb.

(1) Total ankylosis interphalangeal joint:

(a) optimum position, 0 to 15 degrees, 8 percent;

(b) mal-position, flexion greater than 15 degrees, 14 percent.

(2) Total ankylosis metacarpophalangeal joint:

(a) optimum position, up to 25 degree flexion, 10.5 percent;

(b) mal-position, flexion greater than 25 degrees, 14 percent.

(3) Total ankylosis both interphalangeal and metacarpophalangeal joints:

(a) optimum position, 16 percent;

(b) mal-position, 18 percent.

(4) Total ankylosis carpometacarpal joint alone:

(a) optimum position, 4 percent;

(b) mal-position, 8 percent.

(5) Total ankylosis interphalangeal, metacarpophalangeal, and carpometacarpophalangeal joints:

(a) optimum position, 19 percent;

(b) mal-position, 21 percent.

(6) Limitation of motion, thumb:

(a) mild, total closing motion tip of digit, can flex to touch palm, and extend to 15 degrees flexion, strength of grip normal, 3 percent;

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(b) moderate, total closing motion, tip of digit, lacks 1/2 inch of touching palm and can extend to 30 degrees flexion, 6 percent;

(c) severe, total closing motion tip of digit lacks one inch of touching palm and can extend to 45 degrees flexion, 9 percent.

B. Digits other than thumb.

(1) to rate any digit excluding the thumb, find the appropriate descriptive category in item A, then multiply the rating by the following factor for the involved digit:

(a) index finger, multiply by 0.6;

(b) middle finger, multiply by 0.5;

(c) ring finger, multiply by 0.25;

(d) little finger, multiply by 0.125.

(2) Total ankylosis of distal interphalangeal joint, multiply rating in unit (a) or (b) by multiplier for involved digit in subitem (1).

(a) optimum position, 5.5 percent;

(b) mal-position, flexed 35 degrees or more, 8 percent.

C. soft tissue loss, isolated soft tissue loss of the end of digit greater than one centimeter, 20 percent of the disability to the whole body for amputation of that digit as set forth at part 5223.0080.

5223.0150 MUSCULO-SKELETAL SCHEDULE; AMPUTATIONS OF LOWER EXTREMITIES.

For permanent partial disability due to amputation of lower extremities the disability of the whole body is:

A. hemipelvectomy, 50 percent;

B. disarticulation at hip joint, 40 percent;

C. amputation above knee joint with short thigh stump, 3 inch or less below tuberosity of ischium, 40 percent;

D. amputation above knee joint with functional stump, 36 percent;

E. disarticulation at knee joint, 36 percent;

F. amputation below knee joint with short stump, 3

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inch or less below intercondular notch, 36 percent;

G. amputation below knee joint with functional stump, 28 percent;

H. amputation at ankle, Syme type, 28 percent;

I. partial amputation of foot, Chopart's type, 21 percent;

J. mid-metatarsal amputation, 14 percent;

K. amputation of all toes at metatarsophalangeal joints, 8 percent;

L. amputation of great toe:

(1) with resection of metatarsal bone, 8 percent;

(2) at metatarsophalangeal joint, 5 percent;

(3) at interphalangeal joint, 4 percent;

M. amputation of lesser toe, 2nd-5th:

(1) with resection of metatarsal bone, 2 percent;

(2) at metatarsophalangeal joint, 1 percent;

(3) at proximal interphalangeal joint, 0 percent;

(4) at distal interphalangeal joint, 0 percent.

5223.0160 MUSCULO-SKELETAL SCHEDULE; NERVE INJURY OR MOTOR AND SENSORY LOSS, LOWER EXTREMITIES.

Subpart 1. **Total loss.** Total loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

A. femoral, anterior crural, 13 percent;

B. femoral, anterior crural, below iliacus nerve, 11 percent;

C. genitofemoral, genito crural, 2 percent;

D. inferior gluteal, 9 percent;

E. lateral femoral cutaneous, 3 percent;

F. posterior cutaneous of thigh, 2 percent;

G. superior gluteal, 7 percent;

H. sciatic, above hamstring innervation, 31 percent;

I. common peroneal, lateral, or external popliteal,

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13 percent;

J. deep peroneal, above midshin, 9 percent;

K. deep peroneal, below midshin, anterior tibial, 2 percent;

L. superficial peroneal, 5 percent;

M. tibial nerve, medial, or internal popliteal:

(1) above knee, 15 percent;

(2) posterior tibial, midcalf and knee, 11 percent;

(3) below midcalf, 9 percent;

(4) lateral plantar branch, 3 percent; or

(5) medial plantar branch, 3 percent;

N. sural, external saphenous, 1 percent;

O. L-4 nerve root, 11 percent;

P. L-5 nerve root, 13 percent;

Q. S-1 nerve root, 15 percent; or

R. Lumbosacral plexus, 40 percent.

Subp. 2. **Partial loss.** Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at subpart 1.

5223.0170 MUSCULO-SKELETAL SCHEDULE; JOINTS.

Subpart 1. **General.** For permanent partial disability of joints, disability of the whole body is set forth in subparts 2 to 9.

Subp. 2. **Surgical or traumatic shortening of lower extremity.**

A. 1/4 inch to 3/4 inch, 3 percent;

B. 3/4 to 1-1/4 inches, 4.5 percent;

C. 1-1/4 to 1-3/4 inches, 6 percent; or

D. 1-3/4 inches and above, 9 percent.

Subp. 3. **Hip.**

A. range of motion.

(1) limitation of motion:

(a) mild, anterior posterior movement from 0 degree to 120 degree flexion, rotation and lateral motion,

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abduction, adduction free to 50 percent of normal, 6 percent;

(b) moderate, anterior posterior motion from 15 degrees flexion deformity to 110 degrees further flexion, rotation, lateral motion, abduction, and adduction free to 25 percent normal, 12 percent;

(c) severe, anterior posterior motion from 30 degrees flexion deformity to 90 degrees further flexion, 22 percent.

B. Procedures or conditions:

(1) nonunion proximal femur fracture without reconstruction, 33 percent;

(2) arthroplasty, able to stand at work and walk, motion 25 percent to 50 percent of normal, 18 percent;

(3) total hip arthroplasty, normal result, 13 percent;

(4) femoral endoprosthesis:

(a) minimal pain, near normal range of motion, able to walk unsupported, 15 percent;

(b) mild to moderate pain with weight bearing, motion 50 percent of normal, 20 percent;

(5) hip pinning for fracture.

(a) minimal pain, near normal range of motion, able to walk unsupported, 5 percent;

(b) mild to moderate pain, motion 50 percent of normal, 10 percent.

Subp. 4. **Femur.** Femur:

A. shaft fracture, closed, healed, 0 percent;

B. femoral shaft fracture, open reduction, loss of less than 20 degrees of movement of any one plane of either the hip or the knee, no malalignment, 2 percent.

Subp. 5. **Knee.** Knee:

A. Range of motion.

(1) ankylosis and limited motion, total ankylosis optimum position, 15 degrees flexion, 22 percent;

(2) limitation of motion:

(a) mild, 0 degrees to at least 110 degrees

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flexion, 2 percent;

(b) moderate, 5 degrees to at least 80 degrees flexion, 7 percent;

(c) severe, 5 degrees to at least 60 degrees flexion, 15 percent;

(d) extremely severe, limited from 15 degrees flexion deformity with further flexion to 90 degree, 18 percent.

B. Procedures or conditions:

(1) surgical removal of medial or lateral semilunar cartilage, more than 50 percent of cartilage removed, no complications, 3 percent;

(2) partial meniscectomy, up to 50 percent of the meniscus removed, 2 percent;

(3) surgical removal both cartilages, 9 percent;

(4) ruptured cruciate ligament, repaired or unrepaired:

(a) mild laxity, 3 percent;

(b) moderate laxity, 7 percent;

(c) severe laxity, 10 percent;

(5) excision of patella, 9 percent;

(6) plateau fracture, depressed bone elevated, semilunar excised, 9 percent;

(7) plateau fracture, undisplaced, 2 percent;

(8) supracondylar or intercondylar fracture, displaced, 7 percent;

(9) supracondylar or intercondylar fracture, undisplaced, 2 percent;

(10) patella fracture, open reduction or partial patellectomy, displaced, 5 percent;

(11) patella fracture, open reduction or partial patellectomy, undisplaced, 2 percent;

(12) patellar shaving, 1 percent;

(13) arthroscopy, 0 percent;

(14) repair collateral ligament, mild laxity, 2 percent;

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(15) repair collateral ligament, moderate laxity, 4 percent;

(16) repair patellar dislocation, 5 percent;

(17) total knee arthroplasty, flexion to 90 degrees, extension to 0 degrees, 13 percent;

(18) total knee unicondylar, 7 percent;

(19) lateral retinacular release, 1 percent;

(20) proximal tibial osteotomy, flexion to 90 degrees, extension to 0 degrees, 5 percent.

Subp. 6. **Tibia.** Tibia:

A. tibial shaft fracture, undisplaced, healed, normal motion and alignment, 0 percent;

B. tibial shaft fracture, open reduction, loss of less than 20 degrees of movement in any one plane in either the knee or the ankle with full knee extension, no malalignment, 5 percent.

Subp. 7. **Ankle and foot.**

A. Range of motion:

(1) total ankylosis ankle and foot, pantalar arthrodesis:

(a) in 10 degrees plantar flexion, 15 percent;

(b) mal-position 30 degrees plantar flexion, 20 percent;

(2) ankylosis of foot, subtalar or triple arthrodesis tarsal bones, ankle, normal motion, 7.5 percent;

(a) decreased motion, subtalar joint, 3.5 percent;

(b) ankylosis in mal-position, 8 percent;

(3) ankylosis of tibia and talus, subtalar joints free, optimum position 15 degrees plantar flexion, 12 percent;

(4) limitation of motion in the ankle:

(a) mild, motion limited from position of 90 degrees right angle to 20 degrees plantar flexion, 3 percent;

(b) moderate, motion limited from position of 10 degrees flexion to 20 degrees plantar flexion, 6 percent;

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(c) severe, motion limited from position of 20 degrees plantar flexion to 30 degrees plantar flexion, 12 percent.

B. Procedures or conditions:

(1) achilles tendon rupture with treatment surgically or nonsurgically, able to stand on toes, 2 percent;

(2) achilles tendon rupture with treatment surgically or nonsurgically, unable to sustain body weight on toes, 4 percent;

(3) open reduction ankle:

(a) normal range of motion:

i. medial malleolus only, 2 percent;

ii. lateral malleolus only, 2 percent;

(b) normal to mild restriction on range of motion:

i. medial and lateral malleolus, 4 percent;

ii. trimalleolar, 4 percent;

(c) for moderate to severe restriction of range of motion in the ankle, rate as in item A, subitem (4);

(4) ankle, lateral ligament reconstruction, mild laxity, normal range of motion, 2 percent;

(5) ankle, lateral ligament reconstruction, moderate laxity, at least ten degrees greater widening on the Talar tilt stress test X-ray compared to the uninjured side, 3 percent.

Subp. 8. **Foot.**

A. Range of motion:

(1) ankylosis of tarsal metatarsal or mild tarsal joints:

(a) normal position, 2.5 percent;

(b) mal-position, 5 percent;

(2) limited motion in the foot:

(a) mild, limited motion with mild pain with weight bearing, no change in activities, 2.5 percent;

(b) moderate, limitation of motion with pain

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with weight bearing, no reduction in athletic or vigorous activities, 5 percent;

(c) severe, limitation of motion with pain with weight bearing, sedentary activities not affected, 10 percent;

B. Procedures or conditions:

(1) calcaneal fracture, extra articular, pain with weight bearing, 6 percent;

(2) calcaneal fracture, intra articular:

(a) mild limitation of motion as in item A, subitem (2), unit (a), 6 percent;

(b) moderate limitation of motion as in item A, subitem (2), unit (b), 12 percent;

(c) severe limitation of motion as in item A, subitem (2), unit (c), 18 percent;

(3) avascular necrosis talus:

(a) mild limitation of motion as in item A, subitem (2), unit (a), 6 percent;

(b) moderate limitation of motion as in item A, subitem (2), unit (b), 12 percent;

(c) severe limitation of motion as in item A, subitem (2), unit (c) 18 percent;

(4) tarsal fractures, healed, mild pain, 3 percent;

(5) metatarsal fractures, healed, 0 percent;

(6) phalyngeal fractures, healed, 0 percent.

Subp. 9. **Toes.**

A. Complete ankylosis of metatarsophalangeal joint, any toe, 3 percent;

B. complete ankylosis any toe, interphalangeal joint, optimum position semi-flexion, 1 percent.

5223.0180 RESPIRATORY SYSTEM.

Subpart 1. **Evaluation procedures.** The procedures used in evaluating permanent partial disability of the respiratory system shall include the following:

A. complete history and physical examination with

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special reference to cardiopulmonary symptoms and signs;

B. chest roentgenography (posteroanterior in full inspiration, posteroanterior in full expiration timed, three seconds, lateral);

C. hematocrit or hemoglobin determination;

D. electrocardiogram;

E. performance of the following tests of ventilation:

(1) one second forced expiratory volume (FEV1), expressed as a percentage of the normal values set forth in the A.M.A. Guides, pages 69 and 71;

(2) forced vital capacity (FVC), expressed as a percentage of the normal values set forth in the A.M.A. Guides, pages 70 and 72.

F. diffusing capacity studies must be performed when complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits.

Subp. 2. **Measurement of respiratory loss of function.** Table 1 shall be used to calculate the percentage of disability of the whole body due to permanent partial disability of the respiratory system.

TABLE 1

	Forced Spirometry Measurements 1/2 (FEV1 + FVC) (Test three times)	Diffusing Capacity*	Percent Disability of Whole Body
Symptoms			
When dyspnea occurs, is consistent with the circumstances of activity.	Not less than 85 percent of normal	Not Applicable	0
Dyspnea does	70 to 85 percent	Not	15

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not occur at rest and seldom occurs during the performance of the usual activities of daily living.	of normal	Applicable	
Dyspnea does not occur at rest but does occur during the usual activities of daily living.	50 to 70 percent of normal	Usually Not Applicable	30
Dyspnea occurs during activities such as climbing one flight of stairs or walking one block on the level.	25 to 50 percent of normal	40 percent or less of normal	60
Confined to bed and oxygen dependent.	Less than 25 percent of normal	20 percent or less of normal	85

* The diffusing capacity studies must be performed when complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits set forth in Table 1.

Subp. 3. **Asthma.** Asthma which is not medically

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controllable and which requires at least six hospitalizations in 12 months, 25 percent.

5223.0190 ORGANIC HEART DISEASE.

Subpart 1. **General.** For permanent partial disability due to organic heart disease, the disability of the whole body is set forth in subpart 2.

Subp. 2. **Heart ratings.** The following ratings may be applied only after a compilation of a patient's complete history and a physical examination. Testing must include chest X-ray and electrocardiogram. The testing may include echocardiography, exercise testing, and radionuclide studies.

The following table sets forth symptoms of organic heart disease. The percentage of disability of the whole body is determined by the symptoms present.

Organic Heart Disease Schedule

Percentage Disability of Whole Body	10 percent	30 percent	60 percent	85 percent
Organic Heart Disease	Present	Present	Present	Present
Symptoms	Not present	Not present at rest	Not present at rest	Present at rest
Level of activity causing symptoms	No symptoms from usual activities of daily living, including such activities as stair-	No symptoms from usual activities of daily living	Symptoms from a one or more block walk or from climbing stairs. Symptoms also from activities of daily	Worsening of symptoms with any activity

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	or hill-climbing, and walking		living	
Level of unusual activity causing symptoms	No symptoms from walking quickly, recreation, hill- or stair-climbing, arm-work, and similar activities	Symptoms from hill- or stair-climbing, walking quickly, arm-work, or recreation	Symptoms from emotional stress, walking quickly, and similar activities	May be present at rest or may awaken patient
Signs of heart failure	No	No	Relieved by therapy	Not usually relieved by therapy
Signs of symptoms of angina	No	With prolonged or severe exertion	With mild exertion	Rest or nocturnal symptoms
Objective tests of functional status	Ischemic S-T segment changes of at least 1 mm at or before stage 3 of a Bruce protocol exercise test, or	Ischemic S-T segment changes of at least 1 mm at or before stage 2 of a Bruce protocol exercise test, or	Ischemic S-T segment changes of at least 1 mm at or before stage 1 of a Bruce protocol exercise test, or	Diagnostic ischemic S-T segment changes of at least 1 mm on resting electro-cardiogram

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diagnostic ischemic changes at a level of 7 METS or less in a nuclear isotope exercise study	diagnostic ischemic changes at a level of 4 METS or less in a nuclear isotope exercise study	diagnostic ischemic changes at a level of 2 METS or less in a nuclear isotope exercise study

5223.0200 VASCULAR DISEASE AFFECTING EXTREMITIES.

The following schedule shall be used to determine the percentage of disability of the whole body for permanent partial disability due to vascular disease. Permanent partial disability from vascular disease affecting the extremities must be rated according to the following classifications. The system shall be used only after a complete history and physical examination. The full evaluation shall include imaging examination (X-ray with and without contrast, computer axial tomography scanning, sonography, radionuclide studies) volume studies, or flow studies.

A. Vascular disease schedule, lower extremities.

	Percentage of Disability of Whole Body				
	0 percent	10 percent	30 percent	60 percent	90 percent
Intermittant claudication distance	No	Approx. one city block	Approx. 1/4 city block	Less than 1/4 city block	Constant pain
Pain at rest	No	No	No	Sometimes	Constant
Physical signs of	None No	Healed, painless	Healed stump	Amputation	Amputation

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diagnosis	ulcer-ation	stump, or healed ulcer	but persis-tent signs of activity, or persis-tent super-ficial ulcer	above wrist or ankle with con-tinued sign of disease, or wide-spread deep ulcer	above wrist or ankle in more than one limb, or wide, deep ul-ceration of more than one limb
Edema	Rare and transi-ent	Persis-tent, incom-pletely con-trolled	Very severe and only partially con-trolled	Marked and uncon-trollable	Marked and uncon-trollable

B. Peripheral vascular disease, upper extremities.

(1) Class 1. The following findings are present: Decreased pulse or pulses; minimal loss of subcutaneous tissue of fingertips; calcification of arteries as detected by radiographic examination or Raynaud's phenomenon that occurs with exposure to temperature lower than zero degrees centigrade (32 degrees Fahrenheit) but is readily controlled by medication; 0 percent.

(2) Class 2. Objective signs of vascular damage as evidenced by findings such as that of a healed, painless stump of an amputated digit showing evidence of persistent vascular disease, or of a healed ulcer; and Raynaud's phenomenon occurs on exposures lower than four degrees centigrade (39 degrees Fahrenheit) but is controlled by medication, 10 percent.

(3) Class 3. Objective signs of vascular damage as evidenced by healed amputation of two or more digits of one extremity, with evidence of persisting vascular disease or

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superficial ulceration; and Raynaud's phenomenon occurs on exposure to temperatures lower than ten degrees centigrade (50 degrees Fahrenheit) and it is only partially controlled by medication; 30 percent.

(4) Class 4. Objective evidence of vascular damage as evidenced by signs such as amputation of two or more digits of two extremities with evidence of persistent vascular disease, or persistent widespread or deep ulceration involving one extremity; and Raynaud's phenomenon occurs on exposure to temperatures lower than 15 degrees centigrade (59 degrees Fahrenheit) and is only partially controlled by medication; 54 percent.

5223.0210 GASTROINTESTINAL TRACT.

Subpart 1. **General.** The following schedule is for the evaluation of permanent partial disability of the gastrointestinal tract. The evaluation must include a thorough history and physical examination. Additional studies, such as radiographic, metabolic, absorptive, endoscopic, and biopsy may be necessary to determine the functioning of these organs. Disability shall not be determined until after completion of all medically accepted diagnostic and therapeutic efforts. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.

For evaluative purposes, the digestive tract has been divided into (1) the esophagus, stomach, duodenum, small intestine, and pancreas, (2) the colon and rectum, (3) the anus, and (4) the liver and biliary tract.

Subp. 2. **Upper digestive tract (esophagus, stomach, duodenum, small intestine, and pancreas).**

A. Class 1, 2 percent.

(1) Symptoms or signs of upper digestive tract disease are present and there is anatomic loss or alteration; continuous treatment is not required; and weight can be maintained at the desirable level; or

(2) There are no complications after surgical procedures.

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B. Class 2, 15 percent. Symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; dietary restriction and drugs are required for control of symptoms, signs, or nutritional deficiency; and loss of weight below the desirable weight does not exceed 10 percent.

C. Class 3, 35 percent.

(1) symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and dietary restrictions and drugs do not completely control symptoms, signs, or nutritional state; or

(2) there is 10 to 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.

D. Class 4, 65 percent.

(1) symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and symptoms are not controlled by treatment; or

(2) there is greater than a 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.

Subp. 3. **Colon and rectum.**

A. Class 1, 2 percent:

(1) signs and symptoms of colonic or rectal disease are infrequent;

(2) limitation of activities, special diet, or medication is not required; no systemic manifestations are present and weight and nutritional state can be maintained at a desirable level; or

(3) there are no complications after surgical procedures.

B. Class 2, 15 percent. There is objective evidence of colonic or rectal disease and anatomic loss or alteration. There are mild gastrointestinal symptoms with intermittent disturbance of bowel function, accompanied by periodic or continual pain. Minimal restriction of diet or mild symptomatic

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therapy may be necessary. No impairment of nutrition results.

C. Class 3, 30 percent. There is objective evidence of colonic or rectal disease and anatomic loss or alteration; there are moderate to severe exacerbations with disturbance of bowel habit, accompanied by periodic or continual pain; restriction of activity, special diet and drugs are required during attacks; and there are constitutional manifestations such as fever, anemia, or weight loss.

D. Class 4, 50 percent. There is objective evidence of colonic and rectal disease or anatomic loss or alteration; there are persistent disturbances of bowel function present at rest with severe persistent pain; complete limitation of activity, continued restriction of diet, and medication do not entirely control the symptoms; there are constitutional manifestations such as fever, weight loss, or anemia present; and there is no prolonged remission.

Subp. 4. **Anus.**

A. Class 1, 2 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; or there is mild incontinence involving gas or liquid stool; or anal symptoms are mild, intermittent, and controlled by treatment.

B. Class 2, 12 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; and moderate but partial fecal incontinence is present requiring continual treatment; or continual anal symptoms are present and incompletely controlled by treatment.

C. Class 3, 22 percent.

(1) signs of organic anal diseases are present and there is anatomic loss or alteration; and complete fecal incontinence is present; or

(2) signs of organic anal disease are present and severe anal symptoms are unresponsive or not amenable to therapy.

Subp. 5. **Liver and biliary tract.**

A. Class 1, 5 percent.

(1) There is objective evidence of persistent liver disease even though no symptoms of liver disease are

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present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate minimal disturbance of the liver function; or

(2) Primary disorders of bilirubin metabolism are present.

B. Class 2, 20 percent. There is objective evidence of chronic liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate more severe liver damage than Class 1.

C. Class 3, 40 percent. There is objective evidence of progressive chronic liver disease, or history of jaundice, ascites, or bleeding esophageal or gastric varices within the past year; nutrition and strength may be affected; and there is intermittent ammonia and meat intoxication.

D. Class 4, 75 percent. There is objective evidence of progressive chronic liver disease, or persistent ascites or persistent jaundice or bleeding esophageal or gastric varices, with central nervous system manifestations or hepatic insufficiency; and nutrition state is below normal.

Subp. 6. **Biliary tract.**

A. Class 1, 5 percent. There is an occasional episode of biliary tract dysfunction.

B. Class 2, 20 percent. There is recurrent biliary tract impairment irrespective of treatment.

C. Class 3, 40 percent. There is irreparable obstruction of the bile tract with recurrent cholangitis.

D. Class 4, 75 percent. There is persistent jaundice and progressive liver disease due to obstruction of the common bile duct.

5223.0220 REPRODUCTIVE AND URINARY TRACT SCHEDULE.

Subpart 1. **General.** This part sets forth the percentage of disability of the whole body for permanent partial disability of the reproductive and urinary systems. The percentages

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indicated in this schedule are the disability of the whole body for the corresponding class.

Subp. 2. **Evaluative procedures.** For evaluative purposes the reproductive and urinary systems are divided into the: (1) upper urinary tract, (2) bladder, (3) urethra, (4) male reproductive organs, and (5) female reproductive organs.

Procedures for evaluating permanent partial disability of the genitourinary and reproductive systems shall include:

A. a complete history and physical examination with special reference to genitourinary/reproductive symptoms and signs, including psychological evaluation when indicated by the symptoms;

B. laboratory tests to identify the presence or absence of associated disease. The tests may include multi-channel chemistry profile, complete blood count, complete urinalysis, including microscopic examination of centrifuged sediment, chest X-ray, both posterior/anterior and left lateral views, electrocardiogram, performance of a measurement of total renal functions--endogenous creatinine clearance corrected for total body surface area. Other tests may include:

(1) kidney function tests, such as arterial blood gases and determinations of other chemistries that would reflect the metabolic effects of decreased kidney function;

(2) special examinations such as cystocopy, voiding cystograms, cystometrograms;

(3) a description of the anatomy of the reproduction or urinary system;

(4) urodynamics, specifically cystometry combined with electromyography of the external uretheral sphincter to evaluate for presumed upper or lower motor neuron neurogenic bladder; and

(5) nocturnal penile tumescence monitoring with paper or computer printout that displays frequency, duration, and, whenever possible, rigidity of erections.

Subp. 3. **Upper urinary tract.**

A. Solitary kidney, 10 percent. This category shall

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apply only when a solitary kidney is the only upper urinary tract permanent partial disability. When a solitary kidney occurs in combination with any one of the following four classes, the disability rating for that class shall be increased by 10 percent.

B. Class 1, 5 percent. Diminution of kidney function as evidenced by a creatinine clearance of 50 to 70 percent of age and sex adjusted normal values, other underlying causes absent.

C. Class 2, 22 percent. Diminution of the upper urinary tract function as evidenced by a creatinine clearance of 40 to 50 percent of age and sex adjusted normal values, no other underlying disease.

D. Class 3, 47 percent. Diminution of upper urinary tract function, as evidenced by creatinine clearance of 25 to 40 percent of age and sex adjusted normal values.

E. Class 4, 77 percent. Diminution of upper urinary tract function as evidenced by creatinine clearance below 25 percent of age and sex adjusted normal values.

Subp. 4. **Bladder.**

A. Class 1, 5 percent. Symptoms and signs of bladder disorder requiring intermittent treatment, but without evidence of intervening malfunction between periods of treatments or symptomatology.

B. Class 2, 15 percent. Symptoms and signs of bladder disorder requiring continuous treatment, or there is bladder reflex activity but loss of voluntary control.

C. Class 3, 20 percent. Poor reflex activity evidenced by intermittent dribbling, and no voluntary control.

D. Class 4, 30 percent. Continuous dribbling.

Subp. 5. **Urethra.**

A. Class 1, 2 percent. Symptoms and signs of urethral disorder are present which require intermittent therapy for control.

B. Class 2, 15 percent. Symptoms and signs of urethral disorder that cannot be effectively controlled by

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treatment.

Subp. 6. **Penis.**

A. Class 1, 10 percent. Impaired sexual function but vaginal penetration is possible, with supporting objective evidence of abnormal penile tumescence studies to substantiate impaired tumescence or rigidity.

B. Class 2, 20 percent. Impaired sexual function and vaginal penetration is not possible, with supporting objective evidence of insufficient penile tumescence or rigidity.

C. Psychogenic impotence, 0 percent.

Subp. 7. **Testes, epididymides, and spermatic cords.**

A. Class 1, 5 percent.

(1) symptoms and signs of testicular, epididymal, or spermatic cord disease are present and there is anatomic alteration; and

(2) continuous treatment is not required; and

(3) there are no abnormalities of seminal or hormonal functions; or

(4) solitary teste is present.

B. Class 2, 10 percent.

(1) symptoms and signs of testicular, epididymal or spermatic cord disease are present and there is anatomic alteration; and

(2) frequent or continuous treatment is required; and

(3) there are detectable seminal or hormonal abnormalities.

C. Class 3, 20 percent. Trauma or disease produces bilateral anatomical loss or there is no detectable seminal or hormonal function of testes, epididymides, or spermatic cords.

D. Inguinal hernia, direct or indirect, unilateral or bilateral, recurrent after two or more herniorrhaphies, 5 percent.

Subp. 8. **Prostate and seminal vesicles.**

A. Class 1, 5 percent.

(1) there are symptoms and signs of prostatic or

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seminal vesicular dysfunction or disease;

(2) anatomic alteration is present; and

(3) continuous treatment is not required.

B. Class 2, 10 percent.

(1) frequent severe symptoms and signs of prostatic or seminal vesicular dysfunction or disease are present; and

(2) anatomic alteration is present; and

(3) continuous treatment is required.

C. Class 3, 20 percent. There has been ablation of the prostate or seminal vesicles.

Subp. 9. **Vulva and vagina.**

A. Class 1, 10 percent. Impaired sexual function but penile containment is possible.

B. Class 2, 20 percent. Impaired sexual function and penile containment is not possible.

Subp. 10. **Cervix and uterus.**

A. Class 1, 5 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which do not require continuous treatment; or

(2) cervical stenosis, if present, requires no treatment; or

(3) there is anatomic loss of the cervix or uterus in the postmenopausal years.

B. Class 2, 10 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which require continuous treatment; or

(2) cervical stenosis, if present, requires periodic treatment.

C. Class 3, 20 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which are not controlled by treatment; or

(2) cervical stenosis is complete; or

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(3) anatomic or complete functional loss of the cervix or uterus occurs in premenopausal years.

Subp. 11. **Fallopian tubes and ovaries.**

A. Class 1, 5 percent.

(1) symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which do not require continuous treatment; or

(2) only one fallopian tube or ovary is functioning in the premenopausal years.

B. Class 2, 10 percent. Symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which require continuous treatment, but tubal patency persists and ovulation is possible.

C. Class 3, 20 percent.

(1) symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present and there is total loss of tubal patency or total failure to produce ova in the premenopausal years; or

(2) bilateral loss of the fallopian tubes or ovaries occurs in the premenopausal years.

5223.0230 SKIN DISORDERS.

Permanent partial disability resulting from skin disorders are a disability of the whole body as set forth in this part. This schedule is based upon the effect of the disorder on the ability to function and perform activities of daily living and the degree of treatment required for the disorder. The schedule is not based upon the location or the percentage of the body affected by a specific skin disorder. Impairment due to burns shall be rated under part 5223.0240 and not under this schedule.

A. Class 1, 2 percent. Signs or symptoms of skin disorder are present and supported by objective skin findings. With treatment there is no or minimal limitation in the performance of the activities of daily living, although certain physical or chemical agents might temporarily increase the extent of limitation.

B. Class 2, 10 percent. Signs and symptoms of skin

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disorder are present and intermittent treatment is required. There is limitation in the performance of some of the activities of daily living.

C. Class 3, 20 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required. There is limitation in the performance of many of the activities of daily living.

D. Class 4, 45 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which may include periodic confinement at home or other domicile. There is limitation in the performance of many of the activities of daily living.

E. Class 5, 70 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which necessitates confinement at home or other domicile. There is severe limitation in the performance of nearly all of the activities of daily living.

5223.0240 BURNS.

Subpart 1. **General.** The whole body disability due to burns is not equal to the percent of body surface area which is burned. The percentage of body surface area affected must be determined according to Lund and Browder. The ratings determined under subparts 1 to 4 must be combined as set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c), provided that the maximum disability to the whole body under this schedule must not exceed 70 percent. Loss of motion or body parts except the face must be rated under the musculoskeletal schedules and must not be considered as included in a rating under this part unless specifically provided otherwise.

Subp. 2. **Burns other than electrical conduction.** A rating under this part is the rating assigned by items A to F combined as provided in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c):

A. Any burn that heals within one month and leaves no hypertrophic scar, 0 percent.

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B. Cold intolerance of the hands, face, or head as evidenced by the wearing of heavy gloves or additional scarves at 35 degrees Fahrenheit; a scar of at least ten square centimeters must be present for an affected member to be rated under this item:

(1) dominant hand, 4 percent;

(2) nondominant hand, 3 percent;

(3) both hands, 6 percent;

(4) face, 3 percent; or

(5) face and both hands, 10 percent.

C. Heat intolerance is evidenced by fatigue, malaise, nausea, and an oral temperature of at least 100 degrees Fahrenheit upon exposure to an environmental temperature of 90 degrees Fahrenheit at 60 percent relative humidity, 5 percent.

D. Sensitivity to sun exposure as evidenced by the need to cover the skin or use sun screen to prevent sunburn; a scar of at least ten square centimeters must be present for an affected member to be rated under this item:

(1) dominant hand, 4 percent;

(2) nondominant hand, 3 percent;

(3) both hands, 6 percent;

(4) face, 3 percent; or

(5) face and both hands, 10 percent.

E. Sensitivity to dust, chemical, or petroleum exposure; altered sweating; or apocrine gland dysfunction. For one or any combination of these conditions, the whole body disability is:

(1) If the sensitivity affects less than 5 percent of the body surface area, 0 percent.

(2) If the sensitivity affects 5 to 20 percent of the body surface area, 2 percent.

(3) If the sensitivity affects 20 percent or more of the body surface area, 3 percent.

F. Sensory loss due to burns:

(1) Loss of sensation on palmar surface of hands shall be rated as provided by part 5223.0090, subpart 3.

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(2) Sensory loss in less than 5 percent of the body surface area, 0 percent.

(3) Sensory loss in 5 to 20 percent of the body surface area, 2 percent.

(4) Sensory loss in more than 20 percent of the body surface area, 5 percent.

Subp. 3. **Electrical conduction injuries.**

A. Associated sensory loss and concommitant thermal injuries must be rated as provided in subpart 1.

B. Peripheral nerve deficits must be rated as provided in the musculoskeletal schedule.

The ratings under items A and B must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

Subp. 4. **Cosmetic disfigurement.** This part applies to disfigurement on the face, the head, the neck, or the hands due to burns. Where there is surgery, this rating is done after correction by plastic surgery. The final rating under this schedule shall not be done until hypertrophic scarring is matured or more than 24 months after the injury. The ratings under the items of this part must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

A. The face is the anterior head from the forehead, to and including the chin.

(1) Loss of facial features:

(a) Deformity of nasal tip or deformity, thinning, or eversion of ala nasi, 5 percent.

(b) Loss of more than 50 percent of nasal cartilage or of both ala nasi, 25 percent.

(2) Eyes:

(a) Loss of one eyebrow, 2.5 percent.

(b) Loss of two eyebrows, 5 percent.

(c) Ectropian unaccompanied by visual impairment:

i. Lower lid pulled from eye when

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mouth is opened and neck extended, 5 percent.

ii. Lower lid pulled away with no movement of face or neck, 10 percent.

iii. Cornea unprotected when sleeping, 15 percent.

(d) Epiphora unaccompanied by visual impairment, 10 percent.

(3) Mouth. A rating under this subitem is the arithmetic sum of units (a) to (d).

(a) Noncongenital microstomia or distortion affecting eating and dental hygiene, 10 percent.

(b) Eversion of the upper lip, 7.5 percent.

(c) Eversion of the lower lip, 7.5 percent.

(d) Distortion of vermillion border, 10 percent.

(4) Ear. Loss of 75 percent or more of one external ear, 5 percent.

(5) Hypertrophic scarring of face in areas other than those covered in subitems (1) to (4):

(a) Affecting only forehead above the eyebrows, 10 percent.

(b) Affecting the lower face from eyebrows to chin, 25 percent.

(c) Affecting both the forehead above the eyebrows and the lower face from the eyebrows to chin, 35 percent.

(6) Wrinkling of face in areas other than those covered in subitems (1) to (5), one-third of percentages in subitem (5).

B. Head, Alopecia:

(1) Anterior hairline:

(a) Loss of less than 20 percent of hair on anterior hairline, 0 percent.

(b) Loss of 20 to 50 percent of hair on anterior hairline, 2 percent.

(c) Loss of more than 50 percent of hair on

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anterior hairline, 3 percent.

(2) Elsewhere on head and not affecting anterior hairline:

(a) Loss of 0 to 15 percent of hair, 0 percent.

(b) Loss of 15 to 30 percent of hair, 1 percent.

(c) Loss of 20 to 50 percent of hair, 2 percent.

(d) Loss of more than 50 percent of hair, 3 percent.

The ratings under subitems (1) and (2) must be combined as set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

C. The anterior neck extends from the ear lobule anteriorally to the ear lobule and downward to mid clavicle. Disfigurement on the posterior neck from the ear lobule posteriorally to the ear lobule shall not be rated under this rule. Ratings under subitems (1) and (2) shall be combined as set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

(1) Hypertrophic scarring or banding:

(a) Affecting less than 10 percent of the anterior neck, 0 percent.

(b) Affecting 10 to 30 percent of the anterior neck, 10 percent.

(c) Affecting 30 to 50 percent of the anterior neck, 12 percent.

(d) Affecting more than 50 percent of the anterior neck, 15 percent.

(2) The chin shelf is the area from the chin backwards to the neck.

(a) Chin shelf extends less than 2 inches, 3 percent.

(b) Chin shelf extends less than 1 inch, 10 percent.

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D. The hand extends from the carpus outward. Loss of body parts and loss of motion are rated in the musculoskeletal schedule.

(1) Hypertrophic scarring affecting less than 30 percent of dorsum of one hand, 0 percent.

(2) Hypertrophic scarring affecting 30 to 50 percent of dorsum of one hand, 3 percent.

(3) Hypertrophic scarring affecting 50 percent or more of dorsum of one hand, 7 percent.

5223.0250 PREEXISTING IMPAIRMENTS.

Where a disability is subject to apportionment under Minnesota Statutes, section 176.101, subdivision 4a, the rating for the disabled condition under a category of the schedules of this chapter must be reduced as provided in this part. As used in this part, the term disabled condition includes the preexisting disability.

A. This part applies where the preexisting disability has not been rated and neither item B nor C is applicable.

(1) The preexisting disability must be rated under a category of the schedules of this chapter.

(2) The whole body disability rating assigned to the disabled condition of the member by the schedules of this chapter must be reduced by the rating assigned to the preexisting disability of the member in subitem (1).

(3) For example, the medical report establishes a preexisting impairment of amputation of the index finger at the metacarpophalangeal joint. This injury is a 13.5 percent preexisting disability to the body as a whole under part 5223.0080, subpart 1, item L, subitem (1). The disabled condition is amputation of all fingers except the thumb at the metacarpophalangeal joint, a 32.5 percent disability under part 5223.0080, subpart 1, item J, 32.5 percent less 13.5 percent gives the disability (adjusted for the preexisting impairment) of 19 percent. Payment is made for the 19 percent disability at the rate appropriate for a 32.5 percent disability. Thus, if economic recovery benefits are paid, 19 percent is multiplied by

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680 weeks; for impairment benefits, 19 percent is multiplied by $85,000.

B. This item applies where the preexisting disability of a member has been rated in another proceeding or state and the rating represents a percentage of disability to the whole body. The rating of the disabled condition under a category of these schedules shall be reduced by the rating assigned to the preexisting disability of the member.

C. This item applies where the injury producing the preexisting disability occurred prior to January 1, 1984, and the preexisting disability has been rated under Minnesota Statutes, section 176.101, subdivision 3; or where Minnesota Statutes, chapter 176 is inapplicable and the rating represents a percentage of disability of a member.

(1) From Table 1, determine the maximum whole body disability assignable to the preexisting disability. Use Table 2 where disability to an internal organ is rated as a percentage of disability to the particular organ rather than a percentage of disability to internal organs. Where the preexisting disability is not listed in Table 1 or Table 2, the maximum whole body disability is the maximum disability assigned to the affected member by the schedules of this chapter.

TABLE 1

Member	Maximum Whole Body Disability (Percent)
Thumb	16
Index finger	11
Middle finger	9
Ring finger	4
Little finger	2
Great toe	5
Lesser toe	1
Hand	54
Hand and wrist	54

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Arm	60
Foot	21
Foot and ankle	28
Leg	40
Eye	24
Eyes (both)	85
Hearing loss, (one ear)	6
Hearing loss (both ears)	35
Back	71
Voice	70
Burns and skin impairments, including disfigurement	70
Internal organs, excluding brain	85
Brain	100
Head	20

TABLE 2

Member	Maximum Whole Body Disability (Percent)
Stomach	65
Pancreas	65
Colon	50
Spleen	0
Bladder	30
Sexual organs or function	20
Circulatory system	90
Heart	85
Lungs	85
Liver	75
Solitary kidney	10
Kidney, excluding solitary kidney	77

(2) Multiply the prior rating of the member's

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preexisting disability by the maximum whole body disability determined in subitem (1). Where a disputed rating has been closed out to a stipulated rating but payments were made on a different rating, the rating for purposes of this part is the closed-out rating.

(3) Subtract the percentage amount determined in subitem (2) from the whole body disability rating assigned to the disabled condition of the member by the schedules of this chapter. The remainder is the amount due for the disabled condition after apportionment for the preexisting disability.

(4) For example, a pre-1984 back injury was rated at 25 percent of the back. The whole body disability attributable to this injury is 25 percent by 71 percent equals 17.75 percent. After 1984, a second back injury is rated at 24.5 percent under this chapter (24.5 percent minus 17.75 percent equals 6.75 percent). Six and three-fourths (6.75) percent is the amount assigned to the disabled condition after apportionment.

D. Where both Minnesota Statutes, sections 176.101, subdivision 4a, and 176.105, subdivision 4, paragraph (c) apply, apportionment must be determined as follows:

(1) For each member, determine the percentage of whole body disability under items A to C, as appropriate.

(2) Combine the percentages obtained in subitem (1) in the manner set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c). Prior to the next application of the formula, the result of an application of the formula must be stated as a decimal, not as a percentage, that is rounded up or down to four decimal places.

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10/14 19 85

HUBERT H. HUMPHREY, III
ATTORNEY GENERAL

BY _____
ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED

OCT 15 1985 1:48 P.M.

Joan Anderson Growe
Secretary of State

Rules as Proposed (all new material)

5223.0010 WORKERS' COMPENSATION PERMANENT PARTIAL DISABILITY SCHEDULES.

Subpart 1. **Purpose of schedules.** Minnesota Statutes, section 176.105, subdivision 4, requires the commissioner of labor and industry to adopt rules assigning specific percentages of disability of the whole body for specific permanent partial disabilities. This chapter assigns percentages of disability of the whole body for permanent partial disabilities.

Subp. 2. **Interpretation of schedules.** Only the categories in the schedules in this chapter may be used when rating the extent of a disability. Where a category represents the disabling condition, the disability determination shall not be based on the cumulation of lesser included categories. If more than one category may apply to a condition, the category most closely representing the condition shall be selected. Where more than one category is necessary to represent the disabling condition, categories shall be selected to avoid double compensation for any part of a condition. The percentages of disability to the whole body as set forth in two or more categories shall not be averaged, prorated, or otherwise deviated from, unless specifically provided in the schedule. Unless provided otherwise, where an impairment must be rated under more than one category, the ratings must be combined using the A + B (1-A) formula as provided in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c). With respect to the musculo-skeletal schedule, the percent of whole body disability for motor or sensory loss of a member shall not exceed the percent of whole body disability for amputation of that member.

Subp. 3. **Disabilities not part of schedules.** A category not found within this chapter shall not be used to determine permanent partial disability.

Subp. 4. **Rules of construction.** The technical terms in this chapter are defined in either part 5223.0020, or by the documents incorporated by reference in this chapter. Documents

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are incorporated by reference only to the extent necessary for definition or to the extent specifically referenced in a schedule. The documents incorporated by reference are not subject to frequent change, although new editions occasionally may be published. These documents are common medical references and are conveniently available to the public as noted in items A to K. These documents are as follows:

A. Guides to the Evaluation of Permanent Impairment, published by the American Medical Association, Committee on Rating of Mental and Physical Impairment, second edition 1984. This document is also known as the A.M.A. Guides. Available at the University of Minnesota, Biomedical Library.

B. Snellen Charts, published by American Medical Association Committee for Eye Injuries and designated Industrial Vision Test Charts. These charts are also known and referred to as A.M.A. charts. Available at the Minnesota State Law Library.

C. American Medical Association Rating Reading Card of 1932, published by the American Medical Association Committee for Eye Injuries. This document is also known as the A.M.A. Card. Available at the Minnesota State Law Library.

D. S3.1-1977 Criteria for Permissible Ambient Noise during Audiometric Testing and S3.6-1969 (R1973) Specification for Audiometers, published by the American National Standard Institutes, Inc. in 1973 and 1977, respectively. Available at the Minnesota State Law Library.

E. Metropolitan Life Insurance Company Height and Weight Tables, published by the Metropolitan Life Insurance Company, 1983. Available at the Minnesota State Law Library.

F. The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, published by Sister Kenny Institute, 1973. Available at the Minnesota State Law Library.

G. Dorland's Illustrated Medical Dictionary, 26th edition, published by W.B. Saunders Company, 1981. This document is also known as Dorland's. Available at the University of Minnesota Biomedical Library.

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H. D.S.M. III, Diagnostic and Statistical Manual of Mental Disorders, published by American Psychiatric Association, 1980. This document is also known as D.S.M. III. Available at the University of Minnesota Biomedical Library.

I. Fractures, Charles A. Rockwood and David Green, published by Lippencott, 1975. Available at the University of Minnesota Biomedical Library.

J. Textbook on Anatomy, William Henry Hollinshead, published by Harper & Row, 1985. Available at the University of Minnesota Biomedical library.

K. "The Estimation of Areas of Burns," in Surgery, Gynecology and Obstetrics, by Lund and Browder, pages 352-358, volume 79, published by Surgical Publishing Company of Chicago, 1944. This document is referred to as Lund and Browder. Available at the Minnesota State Law Library.

Subp. 5. **Severability.** If any provision of this chapter is held to conflict with a governing statute, applicable provisions of the Minnesota Administrative Procedure Act, or other relevant law; to exceed the statutory authority conferred; to lack a reasonable relationship to statutory purposes or to be unconstitutional, arbitrary, or unreasonable; or to be invalid for any other reason; the validity and enforceability of the remaining provisions of the rule shall in no manner be affected.

5223.0020 DEFINITIONS.

Subpart 1. **Scope.** For the purpose of this chapter the terms defined in this part have the meanings given them unless the context clearly indicates otherwise. Terms not defined in this part are defined in Dorland's or other documents incorporated by reference. If the definition in a document incorporated by reference conflicts with or differs from the definition in this chapter, the specific definitions in this chapter shall govern.

Subp. 2. **Acromio-clavicular grade 1.** "Acromio-clavicular grade 1" means an undisplaced acromio-clavicular joint.

Subp. 3. **Acromio-clavicular grade 2.** "Acromio-clavicular grade 2" means a 50 percent displacement of the clavicle in

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relationship to the acromion at the acromio-clavicular joint.

Subp. 4. **Acromio-clavicular grade 3.** "Acromio-clavicular grade 3" means a completely disrupted acromio-clavicular joint.

Subp. 5. **Activities of daily living.** "Activities of daily living" means the ability to perform self cares, to perform housework and related tasks, to ride in or operate a motor vehicle, and to perform vocational tasks not requiring physical labor.

Subp. 6. **Ankylosis.** "Ankylosis" means the stiffening or fixation of a joint.

Subp. 7. **ANSI.** "ANSI" means the American National Standards Institute.

Subp. 8. **Banding.** "Banding" means a thick, rope-like cord of hypertrophic scarring resulting from burns.

Subp. 9. **Category.** "Category" means a permanent partial disability as described in this chapter and the corresponding percent of disability to the whole body for that permanent partial disability.

Subp. 10. **Chronic.** "Chronic" means the repeated or continuous occurrence of a specific condition or symptom.

Subp. 11. **Demonstrable degenerative changes.** "Demonstrable degenerative changes" means radiographic findings demonstrating the presence of degeneration of intervertebral disc or facet joints. Examples of demonstrable degenerative changes are disc space narrowing, small osteophytes, and facet joint hypertrophic changes.

Subp. 12. **Desirable level of weight.** "Desirable level of weight" means preferred weights in the tables created by the Metropolitan Life Insurance Company.

Subp. 13. **Disarticulation.** "Disarticulation" means an amputation occurring through a joint.

Subp. 14. **Distance vision.** "Distance vision" means the ability to distinguish letters at a distance of 20 feet according to the Snellen and A.M.A. Charts.

Subp. 15. **Family member.** "Family member" means cohabitants and is not limited to those related by blood or

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marriage. In cases of institutionalization or similar nonhome environment, family member may include staff members who care for the individual on a regular basis.

Subp 16. **Fore-quarter.** "Fore-quarter" means the amputation of the upper extremity involving the scapula, clavicle, and muscles that attach to the chest.

Subp. 17. **Fusion.** "Fusion" means the surgical uniting of one vertebral segment to an adjoining vertebral segment.

Subp. 18. **Gastrostomy.** "Gastrostomy" means a surgical creation of a gastric fistula through the abdominal wall for the purpose of introducing food into the stomach.

Subp. 19. **Glossopharyngeal.** "Glossopharyngeal" means the ninth cranial nerve with sensory fibers to the tongue and pharynx. It affects taste and swallowing.

Subp. 20. **Gross motor weakness.** "Gross motor weakness" means total or partial loss as described in part 5223.0160.

Subp. 21. **Hypertrophic scar.** "Hypertrophic scar" means an elevated irregularly shaped mass of scar tissue.

Subp. 22. **Hypoglossal.** "Hypoglossal" means the motor nerve to the tongue. It is the 12th cranial nerve and carries impulses from the brain to the tongue, including movement of muscles and secretion of glands and motor movement.

Subp. 23. **Kenny scale.** "Kenny scale" means the Kenny self-care evaluation system in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence of Activities of Daily Living.

Subp. 24. **Laminectomy.** "Laminectomy" means the removal of part or all of the lamina of one vertebral segment, usually with associated disc excision.

Subp. 25. **Lethargy.** "Lethargy" means, in relation to a nervous system injury to the brain, that an individual is drowsy, but can be aroused.

Subp. 26. **Moderate referred shoulder and arm pain.** "Moderate referred shoulder and arm pain" means pain of an intensity necessitating decreased activity in order to avoid the pain. This pain is demonstrated in a dermatomal

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distribution into the shoulder and upper extremity.

Subp. 27. **Moderate partial dislocation.** "Moderate partial dislocation" means a loss of normal vertebral alignment of up to 50 percent of the vertebral body on the adjacent vertebral body associated with vertebral fractures.

Subp. 28. **Near vision.** "Near vision" means clearness of vision at the distance of 14 inches.

Subp. 29. **Nonpreferred extremity.** "Nonpreferred extremity" means the arm or leg not used dominantly, as for example, the left hand of a right-handed writer.

Subp. 30. **Objective clinical findings.** "Objective clinical findings" as used in part 5223.0070 means examination results which are reproducible and consistent. Examples of objective clinical findings are involuntary muscle spasms, consistent postural abnormalities, and changes in deep tendon reflexes.

Subp. 31. **Postural abnormality.** "Postural abnormality" means a deviation from normal posture, as found on anterior/posterior or lateral X-rays, that involves the spine and pelvis or segments of the spine or pelvis, such as kyphosis, lordosis, or scoliosis.

Subp. 32. **Preferred extremity.** "Preferred extremity" means the dominant leg or arm, as for example, the right arm of a right-handed person.

Subp. 33. **Presbycusis.** "Presbycusis" means a decline in hearing acuity that occurs with the aging process.

Subp. 34. **Pseudophakia.** "Pseudophakia" means that the crystalline lens of the eye has been replaced with a surgically implanted lens.

Subp. 35. **Self cares.** "Self cares" means bed activities, transfers, locomotion, dressing, personal hygiene, bowel and bladder, and feeding as described in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, pages 10-24.

Subp. 36. **Spinal stenosis.** "Spinal stenosis" means the narrowing of the spinal canal.

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Subp. 37. **Spondylolisthesis.** "Spondylolisthesis" means the forward movement of one vertebral body of one of the lower lumbar vertebrae on the vertebrae below it or upon the sacrum.

Subp. 38. **Spondylolisthesis grade 1.** "Spondylolisthesis grade 1" means forward movement from zero to 25 percent of the vertebral body.

Subp. 39. **Spondylolisthesis grade 2.** "Spondylolisthesis grade 2" means forward movement from 25 to 50 percent of the vertebral body.

Subp. 40. **Spondylolisthesis grade 3.** "Spondylolisthesis grade 3" means movement from 50 to 75 percent of the vertebral body.

Subp. 41. **Spondylolisthesis grade 4.** "Spondylolisthesis grade 4" means forward movement from 75 to 100 percent of the vertebral body.

Subp. 42. **Stupor.** "Stupor" means, in relation to a nervous system injury to the brain, that a strong stimulus or pain is needed to arouse consciousness or response.

Subp. 43. **Tinnitus.** "Tinnitus" means a subjective sense of noises in the head or ringing in the ear for which there is no observable external cause.

Subp. 44. **Trigeminal.** "Trigeminal" means the mixed nerve with sensory fibers to the face, cornea, anterior scalp, nasal and oral cavities, tongue and supertentorial dura matter. It also has motor fibers to the muscles of mastication. It is the fifth cranial nerve.

Subp. 45. **Vertigo.** "Vertigo" means a sensation of moving around in space or having objects move about the person. It is the result of a disturbance of the equilibratory apparatus.

Subp. 46. **Vestibular.** "Vestibular" means the main division of the auditory nerve. It is the eighth cranial nerve and deals with equilibrium.

Subp. 47. **Wrinkling.** "Wrinkling" means small ridges on the skin formed by shrinking or contraction as a result of burns.

Subp. 48. **14/14.** "14/14" is a term used in the measurement of near vision. It is the clearness of vision at a

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distance of 14 inches. The numerator is the test distance in inches. The denominator is the distance at which the smallest letter on the A.M.A. card can be seen.

Subp. 49. **20/20 Snellen or A.M.A. Chart.** "20/20 Snellen or A.M.A. Chart" refers to a chart imprinted with block letters or numbers in gradually decreasing sizes, identified according to distances at which they are ordinarily visible. It is used in testing visual acuity. The numerator is the test distance in feet. The denominator is the distance at which the smallest letter discriminated by a patient would subtend five minutes of arc.

5223.0030 EYE SCHEDULE.

Subpart 1. **Complete loss of vision.** For complete loss of vision in both eyes, disability of the whole body is 85 percent. For complete loss of vision in one eye, disability of the whole body is 24 percent. In determining the degree of vision impairment and of whole body disability, subparts 2 to 6 shall be used.

Subp. 2. **Examination.** Disability shall not be determined until all medically acceptable attempts to correct the defect have been made. Prior to the final examination on which disability is to be determined, at least six months shall elapse after all visible inflammation has disappeared. In cases of disturbance of extrinsic ocular muscles, optic nerve atrophy, injury of the retina, sympathetic ophthalmia, and traumatic cataract, at least 12 months shall elapse before the final examination is made. Testing shall be conducted with corrective lenses applied, unless indicated otherwise in this part.

Subp. 3. **Maximum and minimum limits of primary coordinate factors of vision.** The primary coordinate factors of vision are central visual acuity, visual field efficiency, and ocular motility.

A. The maximum limit for each coordinate function is established in subitems (1) to (3):

(1) The maximum limit of central visual acuity is the ability to recognize letters or characters which subtend an

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angle of five minutes, each unit part of which subtends a one-minute angle at the distance viewed. A 20/20 Snellen or A.M.A. chart is 100 percent (maximum) central visual acuity for distance vision. 14/14 A.M.A. card is 100 percent (maximum) central visual acuity for near vision.

(2) The maximum visual field is defined as 500 degrees. It is the sum of the degrees in the eight principal meridians from the point of fixation to the outermost limits of visual perception and defines the area in which a three millimeter white target is visible at 33 centimeters. One hundred percent visual field efficiency is that visual field which extends from the point of fixation outward 85 degrees, down 65 degrees, down and in 50 degrees, inward 60 degrees, in and up 55 degrees, upward 45 degrees, and up and out 55 degrees.

(3) Maximum ocular motility is present if there is absence of diplopia in all parts of the field of binocular fixation, and if normal binocular motor coordination is present.

B. The minimum limit for each coordinate function is established in subitems (1) to (3):

(1) The minimum limit of central visual acuity is:

(a) for distance vision, 20/800 Snellen or A.M.A. chart; and

(b) for near vision, 14/560 A.M.A. card.

(2) The minimum limit for field vision is established as a concentric central contraction of the visual field to five degrees. Five degrees of contraction of the visual field reduces the visual efficiency of the eye to zero.

(3) The minimum limit for ocular motility is established by the presence of diplopia in all parts of the field of binocular fixation or by absence of binocular motor coordination. The minimum limit is 50 percent ocular motility efficiency.

Subp. 4. **Measurement of coordinate factors of vision and computation of partial loss.**

A. Central visual acuity shall be measured both for distance vision and for near vision, each eye being measured

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separately, both with and without correction. A Snellen or A.M.A. chart shall be used for distance vision and an A.M.A. card shall be used for near vision. Illumination shall be at least five footcandles.

(1) Table 1 shows the percentage of visual efficency corresponding to the notations for distance vision and for near vision. For test readings between those listed on the chart, round up from the midpoint to the nearest reading, and round down from below the midpoint.

Where distance vision is less than 20/200 and the A.M.A. chart is used, readings are at ten feet. The test reading is translated to the corresponding distance reading in Table 1 by multiplying both the numerator and the denominator of the test reading by two.

TABLE 1

Central Visual Acuity

A.M.A. Chart or Snellen Reading for Distance	A.M.A. Card Reading for Near	Percentage of Central Visual Acuity Efficiency
20/20	14/14	100.00
20/25	14/17.5	95.7
20/25.7	.....	95.0
20/30	14/21	91.5
20/32.1	.....	90.0
20/35	14/24.5	87.5
20/38.4	.....	85.0
20/40	14/28	83.6
20/44.9	14/31.5	80.0
20/50	14/35	76.5

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1	20/52.1	....	75.0
2	20/60	14/42	69.9
3			
4	20/60.2	.....	70.0
5	20/68.2	.....	65.0
6	20/70	14/49	64.0
7			
8	20/77.5	.....	60.0
9	20/80	14/56	58.5
10	20/86.8	.....	55.0
11			
12	20/90	14/63	53.4
13	20/97.5	.....	50.0
14	20/100	14/70	48.9
15			
16	20/109.4	.....	45.0
17	20/120	14/84	40.9
18	.....	14/89	38.4
19			
20	20/122.5	.....	40.0
21	20/137.3	.....	35.0
22	20/140	14/98	34.2
23			
24	20/155	.....	30.0
25	20/160	14/112	28.6
26	20/175	.....	25.0
27			
28	20/180	14/126	23.9
29	20/200	14/140	20.0
30	20/220	14/154	16.7
31			
32	20/240	14/168	14.0
33			
34	....	14/178	12.3
35	20/260	14/182	11.7
36			

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	20/280	14/196	9.7
	20/300	14/210	8.2
	20/320	14/224	6.8
	20/340	14/238	5.7
	20/360	14/252	4.8
	20/380	14/266	4.0
	20/400	14/280	3.3
	20/450	14/315	2.1
	20/500	14/350	1.4
	20/600	14/420	0.6
	20/700	14/490	0.3
	20/800	14/560	0.1

(2) The percentage of central visual acuity efficiency of the eye for distance vision is that percentage in Table 1 which corresponds to the test reading for distance vision for that eye.

(3) The percentage of central visual acuity efficiency of the eye for near vision is that percentage in Table 1 which corresponds to the test reading for near vision for that eye.

(4) The percentage of central visual acuity efficiency of the eye in question is determined as follows:

(a) Multiply by two the value determined for corrected near vision in subitem (3).

(b) Add the product obtained in unit (a) to the value determined for corrected distance vision in subitem (2).

(c) Divide the sum obtained in unit (b) by three.

The following is an example of this calculation. If the central visual acuity efficiency for distance is 70 percent, and that for near is 25 percent, the percentage of central visual acuity efficiency for the eye is:

$$\frac{70\% + (2 \times 25)}{\quad}$$

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3 = 40% central visual acuity efficiency

(5) For traumatic aphakia, the corrected central visual acuity efficiency of the eye is 50 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

(6) For traumatic pseudophakia, the corrected central visual acuity efficiency of the eye is 80 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

B. For each eye, the extent of the field of vision shall be determined by perimetric test methods. A three millimeter white disk which subtends a 0.5-degree angle under illumination of not less than seven footcandles shall be used. For aphakia, a six millimeter white disk shall be used. The result shall be plotted on the visual field chart as illustrated in the A.M.A. Guides, page 144.

(1) The amount of radial contraction in the eight principal meridians shall be determined. The sum of the degrees of field vision remaining on these meridians, divided by 500, is the visual field efficiency of one eye, expressed as a percentage. If the eye has a concentric central contraction of the field to a diameter of five degrees, the visual efficiency is zero.

(2) When the impairment of field is irregular and not fairly disclosed by the eight radii, the determination shall be based on a number of radii greater than eight and the divisor in subitem (1) shall be changed accordingly.

(3) Where there is a loss of a quadrant or a half-field, the degrees of field vision remaining in each meridian are added to one-half the sum of the two boundary

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meridians.

C. Ocular motility shall be measured in all parts of the motor field with any useful correction applied.

(1) All directions of gaze shall be tested with use of a test light and without the addition of colored lenses or correcting prisms. The extent of diplopia is determined on the perimeter at 330 millimeters or on a tangent screen at a distance of one meter from the eye.

(2) Plot the test results on a motility chart as illustrated in the A.M.A. Guides, page 147.

(3) Determine the percentage loss of ocular motility from the motility chart. This percentage is assigned to the injured eye or, if both eyes are injured, to the eye with the greatest impairment of central visual acuity and field vision. The eye with the greatest impairment means the eye for which the product of central visual acuity efficiency and visual field efficiency is the least. For the purpose of calculation, a value of zero percent is deemed to be one percent. For the other eye, the percentage loss of ocular motility is zero.

(4) The percentage loss of ocular motility is subtracted from 100 percent to obtain the ocular motility efficiency. The minimum ocular motility efficiency of one eye is 50 percent.

Subp. 5. **Visual efficiency.** The visual efficiency of one eye is the product of the efficiency values of central visual acuity, of visual field, and of ocular motility. For the purpose of this calculation, these values shall be expressed as decimals and not as percentages; a value of zero percent is deemed to be one percent.

A. For example, if central visual acuity efficiency is 50 percent, visual field efficiency is 80 percent, and ocular motility efficiency is 100 percent, the visual efficiency of the eye is .50 times .80 times 1.00, equals 40 percent. If ocular motility efficiency is changed to 50 percent, the visual efficiency is .50 times .80 times .50, equals 20 percent.

B. Visual efficiency shall be adjusted as set in this

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item. Visual efficiency may not be less than zero percent. No adjustment for glasses or contacts shall be made in cases of aphakia or pseudophakia where the central visual efficiency was adjusted pursuant to subpart 4, item A, subitem (5) or (6).

(1) Visual efficiency shall be decreased by subtracting two percent for any of the following conditions which are present due to the injury: loss of color vision; loss of adaptation to light and dark; metamorphosis; entropion or ectropion uncorrected by surgery; lagophthalmos; epiphora; and muscle disturbances such as ocular ticks not included under diplopia.

(2) If glasses are required as a result of the injury, or if as a result of the injury the refractive error increases by at least one diopeter of sphere or of cylinder or of both, subtract five percent from the visual efficiency. Where the glasses contain prisms, subtract six percent.

(3) If a noncosmetic contact lens is required in one or both eyes as a result of the injury, subtract seven percent from the visual efficiency.

Subp. 6. **Procedure for determining whole body disability due to vision loss.** For each eye, subtract the percentage of visual efficiency determined in subpart 5 from 100 percent. The difference is the percentage impairment of each eye. The better eye has the lower percentage impairment. The poorer eye has the greater percentage impairment.

A. Multiply the percentage impairment of the better eye by three.

B. Add the percentage impairment of the poorer eye to the product obtained in item A.

C. Divide the sum obtained in item B by four.

D. The quotient obtained in item C is the percentage impairment of the visual system. Fractions shall be rounded to the nearest whole number percentage as provided in subpart 4, item A, subitem (1).

E. The percentage impairment of the visual system is translated to the percentage disability of the whole body by

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Table 2.

Table 2

Eye Schedule

Impairment of Visual System, %	Disability of Whole Man, %	Impairment of Visual System, %	Disability of Whole Man, %
0	0	45	42
1	1	46	43
2	2	47	44
3	3	48	45
4	4	49	46
5	5	50	47
6	6	51	48
7	7	52	49
8	8	53	50
9	8	54	51
10	9	55	52
11	10	56	53
12	11	57	54
13	12	58	55
14	13	59	56
15	14	60	57
16	15	61	58
17	16	62	59
18	17	63	59
19	18	64	60
20	19	65	61
21	20	66	62
22	21	67	63
23	22	68	64
24	23	69	65
25	24	70	66
26	25	71	67
27	25	72	68
28	26	73	69
29	27	74	70
30	28	75	71
31	29	76	72
32	30	77	73
33	31	78	74
34	32	79	75
35	33	80	76
36	34	81	76
37	35	82	77
38	36	83	78
39	37	84	79
40	38	85	80
41	39	86	81
42	40	87	82
43	41	88	83
44	42	89	84
		90 - 100	85

5223.0040 EAR SCHEDULE.

Subpart 1. **General.** For hearing loss, the maximum disability of the whole body is 35 percent. The procedures in subparts 2 to 7 shall be used to determine the extent of binaural hearing loss and of whole body disability.

Subp. 2. **Medical diagnosis.** Otological evaluation shall be the method for determining the degree of permanent partial

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hearing loss. The medical diagnosis shall include the following:

A. A complete history of occupational, military, and recreational noise exposure. This medical history shall include documentation of any previous hearing loss, if that information is available.

B. A complete physical examination of the ear.

C. An audiological evaluation which shall include pure tone air conduction and bone conduction testing.

Subp. 3. **Standards for audiometric calibration and test environment.** To ensure accurate measurement of hearing loss, the following standards shall be observed in conducting the tests required in subpart 2:

A. The audiometer used to measure hearing loss shall be calibrated to meet the specifications of ANSI S3.6-1969 (R1973), Specifications for Audiometers. The following are also required:

(1) biological or electroacoustical calibration checks of the audiometer shall be performed monthly;

(2) electroacoustical calibration shall be performed annually to certify the audiometer to the ANSI standard in this item; and

(3) the calibration records shall be preserved and shall be provided upon request.

B. Audiometric test rooms or booths shall meet the specifications of ANSI S3.1-1977, Criteria for Permissible Ambient Noise during Audiometric Testing.

Subp. 4. **Waiting period for final evaluation of hearing loss.** A waiting period of at least three months shall elapse between the date of the occurrence of the noise injury and the final evaluation of the permanent partial hearing loss.

Subp. 5. **Procedure for determining disability of whole body due to hearing loss.** The binaural hearing loss is determined as follows:

A. The calculation for the percent of binaural hearing loss consists of the following steps:

(1) For each ear, test the hearing threshold

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levels at the four frequences of 500, 1,000, 2,000, and 3,000 Hertz.

(2) For each ear, determine the average four-frequency hearing level. The average four-frequency hearing level is one-fourth of the sum of the threshold levels at each of the four tested frequencies. The average four-frequency hearing level is expressed in decibels.

(3) For each ear, subtract 25 decibels from the average four-frequency hearing level for that ear. The remainder, expressed in decibels, is the adjusted average four-frequency hearing level.

(4) For each ear, multiply the adjusted average four-frequency hearing level by 1.5 percent. The product is the monaural hearing loss, expressed as a percentage. A product less than zero percent is deemed to be zero. A product greater than 100 percent is deemed to be 100 percent.

(5) Considering both ears, compare the monaural hearing losses as determined in subitem (4). The ear with the smaller monaural hearing loss is the better ear. The ear with the larger monaural hearing loss is the poorer ear.

(6) Multiply the monaural hearing loss of the better ear by five, add this product to the monaural hearing loss of the poorer ear, and divide the sum by six. The quotient is the binaural hearing loss, expressed as a percentage. The formula is:

$$\frac{(5 \times \text{monaural hearing loss of better ear}) + (\text{monaural hearing loss of poorer ear})}{6} = \text{percent binaural hearing loss}$$

B. The calculation of the percent of binaural hearing loss is illustrated by the following examples.

Example 1

	500 Hertz	1,000 Hertz	2,000 Hertz	3,000 Hertz
Right ear	15	25	45	55
Left ear	30	45	60	85

a. Calculation of the average four-frequency hearing level:

$$15 + 25 + 45 + 55 = 140$$

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$$\text{Right ear} = \frac{\quad}{4} = \frac{\quad}{4} = 35 \text{ decibels}$$

$$\text{Left ear} = \frac{30 + 45 + 60 + 85}{4} = \frac{220}{4} = 55 \text{ decibels}$$

b. Calculation of adjusted average four-frequency hearing level:

Right ear = 35 decibels - 25 decibels = 10 decibels;
Left ear = 55 decibels - 25 decibels = 30 decibels;

c. Calculation of monaural hearing loss:

Right ear = 10 x 1.5% = 15%
Left ear = 30 x 1.5% = 45%

d. Calculation of binaural hearing loss:

$$\frac{(15\% \times 5) + 45\%}{6} = 20 \text{ percent binaural hearing loss}$$

Example 2

	500 Hertz	1,000 Hertz	2,000 Hertz	3,000 Hertz
Right ear	20	25	30	35
Left ear	30	45	60	85

a. Calculation of average four-frequency hearing level.

$$\text{Right ear} = \frac{20 + 25 + 30 + 35}{4} = 25 \text{ decibels}$$

$$\text{Left ear} = \frac{30 + 45 + 60 + 85}{4} = 55 \text{ decibels}$$

b. Calculation of adjusted average four-frequency hearing level.

Right ear = 25 decibels - 25 decibels = 0 decibels
Left ear = 55 decibels - 25 decibels = 30 decibels

c. Calculation of monaural hearing loss:

Right ear = 0 x 1.5 percent = 0
Left ear = 30 x 1.5 percent = 45 percent

d. Calculation of binaural hearing loss:

$$\frac{(0\% \times 5) + 45\%}{6} = 7.5 \text{ percent binaural hearing loss}$$

C. The binaural hearing loss is translated to a percentage of disability of the whole body by the ear schedule set forth below:

EAR SCHEDULE

Binaural Hearing	Disability of Whole Body

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Loss, Percent	Percent
0 - 1.7	0
1.8 - 4.2	1
4.3 - 7.4	2
7.5 - 9.9	3
10.0 - 13.1	4
13.2 - 15.9	5
16.0 - 18.8	6
18.9 - 21.4	7
21.5 - 24.5	8
24.6 - 27.1	9
27.2 - 30.0	10
30.1 - 32.8	11
32.9 - 35.9	12
36.0 - 38.5	13
38.6 - 41.7	14
41.8 - 44.2	15
44.3 - 47.4	16
47.5 - 49.9	17
50.0 - 53.1	18
53.2 - 55.7	19
55.8 - 58.8	20
58.9 - 61.4	21
61.5 - 64.5	22
64.6 - 67.1	23
67.2 - 70.0	24
70.1 - 72.8	25
72.9 - 75.9	26
76.0 - 78.5	27
78.6 - 81.7	28
81.8 - 84.2	29
84.3 - 87.4	30
87.5 - 89.9	31
90.0 - 93.1	32
93.2 - 95.7	33
95.8 - 98.8	34
98.9 -100.0	35

Subp. 6. **Presbycusis.** The calculation of the binaural hearing loss shall not include an additional adjustment for presbycusis.

Subp. 7. **Tinnitus.** No additional percentage of permanent partial disability for hearing loss shall be allowed for tinnitus.

5223.0050 SKULL DEFECTS.

Subpart 1. **Skull depressions.** For skull defects the percent of disability of the whole body is provided by the following schedule:

	Unfilled defect	Filled defect
	Percent	Percent
0 - 1-1/2 square inches	0	0

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1-1/2 - 2-1/2 square inches	5	0
2-1/2 - 4 square inches	10	2
4 - 6-1/2 square inches	15	3
6-1/2 or more square inches	20	5

Subp. 2. **Skull fractures.** Skull fractures are:

A. Basilar skull fracture with persistent spinal fluid leak, 20 percent.

B. Basilar skull fracture without cerebrospinal fluid leak, 0 percent.

5223.0060 CENTRAL NERVOUS SYSTEM.

Subpart 1. **General.** For permanent partial disability of the central nervous system the percentage of disability of the whole body is as provided in subparts 2 to 9.

Subp. 2. **Trigeminal nerve.** Permanent partial disability of the trigeminal nerve is a disability of the whole body as follows:

A. partial unilateral sensory loss, 3 percent;

B. complete unilateral sensory loss, 5 percent;

C. partial bilateral sensory loss, 10 percent;

D. complete bilateral sensory loss, 25 percent;

E. intractable trigeminal neuralgia, 20 percent;

F. atypical facial pain, 5 percent;

G. partial unilateral motor loss, 2 percent;

H. complete unilateral motor loss, 5 percent;

I. partial bilateral motor loss, 10 percent; or

J. complete bilateral motor loss, 30 percent.

Subp. 3. **Facial nerve.** Permanent partial disability of the facial nerve is a disability of the whole body as follows:

A. total loss of taste, 3 percent;

B. partial unilateral motor loss, 25 to 75 percent of function lost, 3 percent;

C. unilateral motor loss, more than 75 percent of function lost, 10 percent;

D. partial bilateral motor loss, 25 to 75 percent of function lost, 10 percent; or

E. bilateral motor loss, more than 75 percent of

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function lost, 20 percent.

Subp. 4. **Vestibular loss with vertigo or disequilibrium.** Vestibular loss with vertigo or disequilibrium is a disability of the whole body as follows:

A. a score of 24 to 28 on the Kenny scale, and restricted in activities involving personal or public safety, such as operating a motor vehicle or riding a bicycle, 10 percent;

B. a score of 16 to 28 on the Kenny scale, and ambulation impaired due to equilibrium disturbance, 30 percent;

C. a score of 10 to 16 on the Kenny scale, 40 percent; or

D. a score of 0 to 10 on the Kenny scale, 70 percent.

Subp. 5. **Glossopharyngeal, vagus and spinal accessory nerves.** Permanent partial disability to glossopharyngeal, vagus and spinal accessory nerves is a disability of the whole body as follows:

A. Swallowing impairment caused by disability to any one or more of these nerves:

(1) diet restricted to semi-solids, 10 percent;

(2) diet restricted to liquids, 25 percent; or

(3) diet by tube feeding or gastrostomy, 50 percent.

B. Mechanical disturbances of articulation due to disability to any one or more of these nerves:

(1) 95 percent or more of words are understood by those who are not family members and others outside the immediate family, but speech is distorted, 5 percent;

(2) 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by those who are not family members, 10 percent;

(3) 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;

(4) more than 50 percent of words are understood by family members, 20 percent;

(5) less than 50 percent of words are understood

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by family members, 25 percent; or

(6) 10 percent or less of words are understood by family members, 30 percent.

Subp. 6. **Hypoglossal nerve.** Permanent partial disability of hypoglossal nerve is a disability of the whole body as follows:

A. Bilateral paralysis; swallowing impairment:

(1) diet restricted to semi-solids, 10 percent;

(2) diet restricted to liquids, 25 percent; and

(3) diet by tube feeding or gastrostomy, 50 percent.

B. Mechanical disturbances of articulation:

(1) 95 percent or more of words are understood by family members and others outside the immediate family, but speech is distorted, 5 percent;

(2) 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by nonfamily members, 10 percent;

(3) 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;

(4) more than 50 percent of words are understood by family members, 20 percent;

(5) less than 50 percent of words are understood by family members, 25 percent; or

(6) 10 percent or less of words are understood by family members, 30 percent.

Subp. 7. **Spinal cord.** To rate under this subpart, determine the disability to the lower extremities, upper extremities, respiration, urinary bladder, anorectal, and sexual functions as follows. The percentage of whole body disability under this subpart is determined by combining the disabilities under items A to F in the manner described in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

A. A permanent partial disability in the use of lower extremities is a disability of the whole body as follows:

(1) can rise to a standing position and can walk,

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but has difficulty walking onto elevations, grades, steps, and distances, 15 percent;

(2) can stand but can walk only on a level surface, 30 percent;

(3) can stand but cannot walk, 45 percent; and

(4) can neither stand nor walk, 65 percent.

B. Permanent partial disability in the use of upper extremities is a disability of the whole body as follows:

Whole Body Disability, Percentages

	Preferred extremity	Nonpreferred extremity	Both
score of 24 to 28 on Kenny scale, but some difficulty with digital dexterity	10	5	15
score of 16 to 28 on Kenny scale, but no digital dexterity	20	10	30
score of 10 to 16 on Kenny scale	40	40	50
score of 0 to 10 on Kenny scale	70	70	85

C. Permanent partial disability of the respiratory function is a disability of the whole body as follows:

(1) difficulty only where extra exertion is required, such as running, climbing stairs, heavy lifting, or carrying loads, 10 percent;

(2) restricted to limited walking, confined to one's own home, 35 percent;

(3) restricted to bed, 75 percent; and

(4) has no spontaneous respiration, 95 percent.

D. Permanent partial disability of the bladder is a disability of the whole body as set forth below. Evaluative procedures to be followed are in part 5223.0220, subpart 2.

(1) impaired voluntary control evidenced by urgency or hesitancy, but continent without collecting devices,

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10 percent;

(2) impaired voluntary control, incontinent requiring external collecting devices, 20 percent; or

(3) impaired voluntary control, incontinent requiring internal collecting or continence devices, 30 percent.

E. The permanent partial disability of the anorectal function is a disability of the whole body as follows:

(1) impaired voluntary control with urgency, 10 percent;

(2) impaired voluntary control without reflex regulation, 20 percent; or

(3) impaired voluntary control, incontinent without diversion, 30 percent.

F. Permanent partial disability of sexual function is a disability of the whole body as follows:

(1) Male: rate under part 5223.0220, subpart 6.

(2) Female: rate under part 5223.0220, subpart 9.

Subp. 8. **Brain injury.** Supporting objective evidence of structural injury, neurological deficit, or psychomotor findings is required to substantiate the permanent partial disability. Permanent partial disability of the brain is a disability of the whole body as follows:

A. Communications disturbances, expressive:

(1) mild disturbance of expressive language ability not significantly impairing ability to be understood, such as mild word-finding difficulties, mild degree of paraphasias, or mild dysarthria, 10 percent;

(2) severe impairment of expressive language ability, but still capable of functional communication with the use of additional methods such as gestures, facial expression, writing, word board, or alphabet board, 35 percent; or

(3) unable to produce any functional expressive language, 70 percent.

B. Communication disturbances, receptive:

(1) mild impairment of comprehension of aural speech, but comprehension functional with the addition of visual

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cues such as gestures, facial expressions, or written material, 40 percent;

(2) some ability to comprehend language is present, but significant impairment even with use of visual cues such as gestures, facial expressions, and written material, 60 percent; or

(3) no evidence of functional comprehension of language, 90 percent.

C. Complex integrated cerebral function disturbances must be determined by medical observation and organic dysfunctions supported by psychometric testing. Functional overlay or primary psychiatric disturbances shall not be rated under this part. The permanent partial disabilities are as follows:

(1) mild impairment of higher level cognitive function or memory, but able to live independently and function in the community as evidenced by independence in activities such as shopping and taking a bus, 20 percent;

(2) same as subitem (1), and also requires supporting devices and direction to carry out limited vocational tasks, 30 percent;

(3) moderate impairment of memory, judgment, or other higher level cognitive abilities, can live alone with some supervision such as for money management, some limitation in ability to function independently outside the home in activities such as shopping and traveling, 50 percent;

(4) moderately severe impairment of memory, judgment, or other higher cognitive abilities, unable to live alone and some supervision required at all times, but able to perform self cares independently, 70 percent; or

(5) severe impairment of memory, judgment, or other higher cognitive abilities such that constant supervision and assistance in self cares are required, 95 percent.

D. Emotional disturbances and personality changes must be substantiated by medical observation and by organic dysfunction supported by psychometric testing. Permanent

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partial disability is a disability of the whole body as follows:

(1) only present under stressful situation such as losing one's job, getting a divorce, or a death in the family, 10 percent;

(2) present at all times but not significantly impairing ability to relate to others, to live with others, or to perform self cares, 30 percent;

(3) present at all times in moderate to severe degree, minimal ability to live with others, some supervision required, 65 percent; or

(4) severe degree of emotional disturbance which, because of danger to self and others, requires continuous supervision, 95 percent.

E. Psychotic disorders, as described in D.S.M. III, not caused by organic dysfunction and substantiated by medical observation:

(1) only present under stressful situation, such as losing one's job, getting divorced, a death in the family, 10 percent;

(2) present at all times but not significantly impairing ability to relate to others, live with others, or perform self cares, 30 percent;

(3) present at all times in moderate to severe degree significantly affecting ability to live with others, and requiring some supervision, 65 percent; or

(4) severe degree of emotional disturbance which, because of danger to self or others, requires continuous supervision, 95 percent.

F. Consciousness disturbances; permanent partial disability of the whole body is as follows:

(1) mild or intermittent decreased level of consciousness manifested by periodic mild confusion or lethargy, a score of 16 to 28 on the Kenny scale, 40 percent;

(2) moderate intermittent or continuous decreased level of consciousness manifested by a moderate level of confusion or lethargy, and a score of 10 to 16 on the Kenny

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scale, 70 percent;

(3) severe decreased level of consciousness manifested as stupor with inability to function independently, and a score of 0 to 10 on the Kenny scale, 95 percent; or

(4) comatose or persistent vegetative state, 99 percent.

G. Motor dysfunction, movement disorder, paralysis, spasticity, sensory loss, or neglect. Where these impairments are due to brain or brain stem injury, rate as provided in subpart 7, items A and B.

H. Other impairments; impairments of respiration, urinary bladder function, anorectal function, or sexual function due to brain or brain stem injury are rated as provided in subpart 7, items C to F.

I. Epilepsy; permanent partial disability due to epilepsy is a disability of the whole body as follows:

(1) well controlled, on medication for one year or more, able to enter work force but with restrictions preventing operation of motor vehicles or dangerous machinery and climbing above six feet in height, 10 percent;

(2) seizures occurring at least once a year, but not severely limiting ability to live independently, 20 percent;

(3) seizures occurring at least six times per year, some supervision required, 40 percent;

(4) seizures poorly controlled with at least 15 seizures per year, supervision required, protective care required with activities restricted, 75 percent; or

(5) frequency of seizures requires continuous supervision and protective care, activities restricted, unable to perform self cares, 95 percent.

J. Headaches; permanent partial disability due to vascular headaches with nausea or vomiting is a five percent disability of the whole body.

K. Total loss of taste, 3 percent.

L. Traumatic head injury, complete and total loss of smell, supported by objective examination, 3 percent.

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5223.0070 MUSCULO-SKELETAL SCHEDULE; BACK.

Subpart 1. **Lumbar spine.** The spine rating is inclusive of leg symptoms except for gross motor weakness, bladder or bowel dysfunction, or sexual dysfunction. Permanent partial disability of the lumbar spine is a disability of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.

(3) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.

(a) single vertebral level, 7 percent; or

(b) multiple vertebral levels, 10.5 percent.

(4) pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings.

(a) spondylolisthesis grade I, no surgery, 7 percent;

(b) spondylolisthesis grade II, no surgery, 14 percent; or

(c) spondylolisthesis grade III or IV, without fusion, 24.5 percent.

B. Herniated intervertebral disc, single vertebral level:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography

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or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 9 percent.

(b) back and specific radicular pain present with objective neurologic findings; and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent;

(2) condition treated by surgery:

(a) surgery or chemonucleolysis with excellent results such as mild low back pain, no leg pain, and no neurologic deficit, 9 percent;

(b) surgery or chemonucleolysis with average results such as mild increase in symptoms with bending or lifting, and mild to moderate restriction of activities related to back and leg pain, 11 percent;

(c) surgery or chemonucleolysis with poor surgical results such as persistent or increased symptoms with bending or lifting, and major restriction of activities because of back and leg pain, 13 percent; or

(d) multiple operations on low back with poor surgical results such as persisting or increased symptoms of back and leg pain, 15 percent;

(3) recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery or chemonucleolysis, add five percent to subitem (2);

(4) herniated intervertebral disc at a new vertebral level other than the previously treated herniated intervertebral disc, calculate rating the same as subitems (1) and (2); or

(5) second herniated disc at adjacent level treated concurrently, add five percent to subitem (1) or (2).

C. Spinal stenosis, central or lateral, proven by computerized axial tomography or myelogram:

(1) mild symptoms such as occasional back pain with athletic activities or repetitive bending or lifting, leg

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pain with radicular symptoms, one vertebral level and no surgery, 14 percent; or

(2) severe spinal stenosis with bilateral leg pain requiring decompressive laminectomy, single vertebral level, with or without surgery (if multiple vertebral levels, add five percent per vertebral level), 18 percent.

D. Spinal fusion surgery for single vertebral level with or without laminectomy, 17.5 percent. Add five percent for each additional vertebral level.

E. Fractures:

(1) vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, 4 percent;

(2) vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent;

(3) vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent;

(4) vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent radicular pain, 12 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;

(5) severe dislocation:

(a) normal reduction with surgical fusion, 12 percent;

(b) poor reduction with fusion, persistent radicular pain, 17.5 percent;

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Subp. 2. **Cervical spine.** The spine rating is inclusive of arm symptoms except for gross motor weakness; sensory loss; and bladder, bowel, or sexual dysfunction. Bladder, bowel, or sexual dysfunction must be rated as provided in part 5223.0060, subpart 7. Permanent partial disability of the cervical spine is a disability of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.

(3) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.

(a) Single vertebral level, 7 percent; or

(b) Multiple vertebral levels, 10.5 percent.

B. Herniated intervertebral disc, single vertebral level:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 9 percent.

(b) Neck and specific radicular pain present with objective neurologic findings; and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent.

(2) Condition treated by surgery:

(a) Surgery with excellent results such as

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mild neck pain, no arm pain, and no neurologic deficit, 9 percent.

(b) Surgery with average results such as mild increase in symptoms with neck motion or lifting, and mild to moderate restriction of activities related to neck and arm pain, 11 percent.

(c) Surgery with poor surgical results such as persistent or increased symptoms with neck motion or lifting, and major restriction of activities because of neck and arm pain, 13 percent.

(d) Multiple operations on neck with poor surgical results such as persisting or increased symptoms of neck and arm pain, 15 percent.

(3) Recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery, add five percent to subitem (2).

(4) Herniated intervertebral disc at a new vertebral level other than the previously treated herniated intervertebral disc, calculate rating the same as subitems (1) and (2).

(5) Second herniated disc at adjacent level treated concurrently, add five percent to subitem (1) or (2).

C. Spinal stenosis, proven by computerized axial tomography or myelogram.

(1) With myelopathy verified by objective neurologic findings, no loss of function, 14 percent.

(2) Loss of function: the rate provided in part 5223.0060, subpart 7.

D. Fusion of a single vertebral level with or without a laminectomy, 11.5 percent. Add five percent for each additional vertebral level.

E. Fracture:

(1) vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, loss of motion neck and all

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planes, approximately 75 percent normal range of motion neck with pain, 6 percent;

(2) vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, loss of motion in the neck in all planes, approximately 50 percent normal range of motion in neck with pain, 14 percent;

(3) vertebral compression with a decrease of more than 25 percent of vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, loss of motion in the neck in all planes, approximately 50 percent normal range of motion in neck with pain, 19 percent;

(4) vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent pain, 12 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;

(5) severe dislocation:

(a) normal reduction with surgical fusion, 12 percent;

(b) poor reduction with fusion, persistent radicular pain, 17.5 percent.

Subp. 3. **Thoracic spine.** The spine rating is inclusive of all symptoms including radicular gross motor weakness and sensory loss, but excluding spinal cord injury. Permanent partial disability of the thoracic spine is a disabilty of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

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(2) Pain associated with chronic muscle spasm. The chronic muscle spasm is substantiated by objective clinical findings and is associated with demonstrable degenerative changes, single or multiple level, 3.5 percent.

B. Herniated intervertebral disc, symptomatic:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 3 percent.

(b) Specific radicular pain present with objective neurologic findings, and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc, and no surgery is performed for treatment, 5 percent.

(2) Condition treated by surgery:

(a) surgery with excellent results such as mild thoracic pain, no radicular pain, and no neurological deficit, 5 percent;

(b) surgery with poor surgical results such as persistence of increased symptoms with lifting, and major restriction of activities, 10 percent.

C. Fractures:

(1) Vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, 4 percent.

(2) Vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent.

(3) Vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent.

(4) Vertebral fracture with involvement of posterior elements with x-ray evidence of moderate partial

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dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent pain, with mild motor and sensory manifestations, 17.5 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent.

(5) Severe dislocation, normal reduction with surgical fusion:

(a) No residual motor or sensory changes, 12 percent;

(b) Poor reduction with fusion, persistent radicular pain, motor involvement, 17.5 percent.

5223.0080 MUSCULO-SKELETAL SCHEDULE; AMPUTATIONS OF UPPER EXTREMITY.

Permanent partial disability due to amputation of upper extremities is a disability of the whole body as follows:

A. forequarter amputation, 70 percent;

B. disarticulation at shoulder joint, 60 percent;

C. amputation of arm above deltoid insertion, 60 percent;

D. amputation of arm between deltoid insertion and elbow joint, 57 percent;

E. disarticulation at elbow joint, 57 percent;

F. amputation of forearm below elbow joint proximal to insertion of biceps tendon, 57 percent;

G. amputation of forearm below elbow joint distal to insertion of biceps tendon, 54 percent;

H. disarticulation at wrist joint, 54 percent;

I. midcarpal or midmetacarpal amputation of hand, 54 percent;

J. amputation of all fingers except thumb at metacarpophalangeal joints, 32.5 percent;

K. amputation of thumb:

(1) at metacarpophalangeal joint or with resection of metacarpal bone, 21.5 percent;

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(2) at interphalangeal joint or through proximal phalynx, 16 percent;

(3) from interphalangeal joint to midportion distal phalynx, 13 percent;

(4) from mid-distal phalynx, distal, 6 percent;

L. amputation of index finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 13.5 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 11 percent;

(3) at distal interphalangeal joint to middistal phalynx, 5 percent;

(4) from middistal phalynx, distal, 2.5 percent;

M. amputation of middle finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 11 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 9 percent;

(3) at distal interphalangeal joint to middistal phalynx, 5 percent;

(4) from middistal phalynx, distal, 2.5 percent;

N. amputation of ring finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 5.5 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 4 percent;

(3) at distal interphalangeal joint to middistal phalynx, 3 percent;

(4) from middistal phalynx, distal, 1.5 percent;

O. amputation of little finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 3 percent;

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(2) at proximal interphalangeal joint or through middle phalynx, 2 percent;

(3) at distal interphalangeal joint to middistal phalanx, 1 percent;

(4) from middistal phalynx, distal, 0.5 percent.

5223.0090 MUSCULO-SKELETAL SCHEDULE; SENSORY LOSS, UPPER EXTREMITIES.

Subpart. 1. **General.** For sensory loss to the upper extremities resulting from nerve injury, the disability of the whole body is set forth in subparts 2 to 4. For the portion of the body described in subpart 2, there must be a total loss of the sensory function. Carpal tunnel syndrome is rated under part 5223.0130, subpart 3, items E and F.

Subp. 2. **Total sensory loss.** Sensory loss, complete:

A. median function at wrist, 22.5 percent;

B. ulnar function at wrist, 11 percent;

C. radial function at wrist, 5.5 percent;

D. medial antebrachial cutaneous, 3 percent;

E. medial brachial cutaneous, 3 percent;

F. loss of thumb, whole, 11 percent;

(1) radial digital nerve, 4 percent;

(2) ulnar digital nerve, 6.5 percent;

G. index finger, whole, 5.5 percent;

(1) radial digital nerve, whole, 3.5 percent;

(2) ulnar digital nerve, 2 percent;

H. long finger, whole, 5.5 percent;

(1) radial digital nerve, 3.5 percent;

(2) ulnar digital nerve, 2 percent;

I. ring finger, whole, 3 percent;

(1) radial digital nerve, 2 percent;

(2) ulnar digital nerve, 1 percent;

J. little finger, whole, 3 percent;

(1) radial digital nerve, 1 percent;

(2) ulnar digital nerve, 2 percent;

K. sensory loss distal to proximal interphalangeal joint, 50 percent of the value of entire digital nerve as set

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forth in subpart 2, either radial or ulnar as applicable;

L. sensory loss distal to one-half distal phalanx, 25 percent of entire digital nerve as set forth in subpart 2.

Subp. 3. **Quality of sensory loss in hand.** The levels of sensory loss and the corresponding disabilities of the whole body are measured as follows:

A. minimal, 2-point discrimination at 6 millimeters or less, 0 percent;

B. moderate, 2-point discrimination greater than 6 millimeters, 1/2 of value in subpart 2;

C. severe, 2-point discrimination at greater than 10 millimeters, 3/4 of value in subpart 2;

D. total, 2-point discrimination at greater than 15 millimeters, same value as in subpart 2.

Subp. 4. **Causalgia.** When objective medical evidence shows persistent causalgia despite treatment, there is loss of sensory and motor function, loss of joint function, and inability to use the extremity in any useful manner. The permanent partial disability to the member, rating from the most proximal joint involved, and the percentage disability of the whole body is 50 percent of that in part 5223.0080, subpart 1.

5223.0100 MUSCULO-SKELETAL SCHEDULE; MOTOR LOSS OR MOTOR AND SENSORY LOSS, UPPER EXTREMITIES.

Subpart 1. **Total or complete loss.** Total or complete loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

A. Motor loss, complete:

(1) median nerve above mid forearm, 30 percent;

(2) median nerve below mid forearm, 19 percent;

(3) radial nerve, 19 percent;

(4) ulnar nerve above mid forearm, 19 percent;

(5) ulnar nerve below mid forearm, 13.5 percent.

B. Complete motor and sensory loss:

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(1) median nerve above mid forearm, 40.5 percent;

(2) median nerve below mid forearm, 35 percent;

(3) radial nerve, 27 percent;

(4) ulnar nerve above mid forearm, 21.5 percent;

(5) ulnar nerve below mid forearm, 16 percent.

C. Complete loss of motor function:

(1) brachial plexus complete, 60 percent:

(a) upper trunk C5-6, 47 percent;

(b) mid trunk C7, 23 percent;

(c) lower trunk C8-T1, 46 percent;

(2) anterior thoracic, 3 percent;

(3) axillary nerve, 23 percent;

(4) dorsal scapular, 3 percent;

(5) long thoracic, 9 percent;

(6) musculo cutaneous, 17.5 percent;

(7) subscapular, 3 percent;

(8) suprascapular, 11.5 percent;

(9) thoraco dorsal, 6 percent.

D. Complete loss of function, motor and sensory:

(1) C-5 root, 11 percent;

(2) C-6 root, 12 percent;

(3) C-7 root, 11 percent;

(4) C-8 root, 13 percent.

Subp. 2. **Partial loss.** Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at subpart 1.

5223.0110 MUSCULO-SKELETAL SCHEDULE; SHOULDER.

Subpart 1. **General.** For permanent partial disability to the shoulder, disability of the whole body is as in subparts 2 and 3.

Subp. 2. **Range of motion.**

A. Total ankylosis in optimum position, abduction 60 degrees, flexion ten degrees, rotation, neutral position, 30 percent;

B. total ankylosis in mal-position, grade upward to

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50 percent;

C. mild limitation of motion: no abduction beyond 90 degrees, rotation no more than 40 degrees with full flexion and extension, 3 percent;

D. moderate limitation of motion: no abduction beyond 60 degrees, rotation no more than 20 degrees, with flexion and extension limited to 30 degrees, 12 percent;

E. severe limitation of motion: no abduction beyond 25 degrees, rotation no more than ten degrees, flexion and extension limited to 20 degrees, 30 percent;

Subp. 3. **Procedures or conditions.**

A. Acromio-clavicular separation of the following severity:

(1) grade 1, 0 percent;

(2) grade 2, 3 percent;

(3) grade 3, 6 percent.

B. anterior or posterior shoulder dislocation, no surgery, single episode, 3 percent.

C. recurrent dislocation, at least three times in six months, 10 percent.

D. repair recurrent shoulder dislocation:

(1) no loss of motion, 6 percent;

(2) if mild limitation of motion, 9 percent;

(3) if moderate or severe limitation of motion, rate as in subpart 2, items D and E.

E. resection distal end of clavicle, 3 percent.

F. humeral shaft fracture, normal range of motion both joints, 0 percent.

G. humeral shaft fracture, open reduction, mild restriction of shoulder and elbow motion, 6 percent. For moderate or severe limitation of motion, rate as in subpart 2, items D and E.

H. surgical neck fracture, healed, mild loss of motion, 0 percent; if loss of motion, rate as in subpart 2.

I. greater tuberosity fracture, normal range of motion, 0 percent. If loss of motion, rate as in subpart 2.

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5223.0120 MUSCULO-SKELETAL SCHEDULE; ELBOW.

Subpart 1. **General.** Permanent partial disability of the elbow is disability of the whole body as in subparts 2 and 3.

Subp. 2. **Range of motion.** Flexion and extension of forearm is 85 percent of the arm. Rotation of the forearm is 15 percent of the arm.

A. Total ankylosis in optimum position approximating midway between 90 degrees flexion and 180 degrees extension, a 45-degree angle, 30 percent.

B. Total ankylosis in mal-position, 40 percent.

C. Limitation of motion:

(1) mild, motion limited from ten degrees flexion to 100 degrees of further flexion, 6 percent;

(2) moderate, motion limited from 20 degrees flexion to 75 degrees of further flexion, 12 percent;

(3) severe, motion limited from 45 degrees flexion to 90 degrees of further flexion, 21 percent;

D. Flail elbow, pseudarthrosis above joint line, wide motion but very unstable, 39 percent.

E. Resection head of radius, 9 percent.

Subp. 3. **Procedures or conditions.**

A. Radial or ulnar shaft fracture, full motion, 0 percent;

B. radial or ulnar fracture, open reduction, mild limitation of motion as defined in subpart 2, item C, 9 percent;

C. olecranon fracture, no loss of motion, 0 percent;

D. olecranon fracture, open reduction internal fixation, mild limitation of motion as defined in subpart 2, item C, 6 percent;

E. epicondylar fracture, no loss of motion, 0 percent;

F. epicondylar fracture, mild loss of motion as defined in subpart 2, item C, 6 percent;

G. release medial or lateral epicondyle, 2 percent;

H. ulnar nerve transposition, 2 percent.

5223.0130 MUSCULO-SKELETAL SCHEDULE; WRIST.

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Subpart 1. **General.** Permanent partial disability of wrist is disability of the whole body as set in subparts 2 and 3.

Subp. 2. **Range of motion.**

A. Excision distal end of ulna, flexion and extension credited with 75 percent of hand, and rotation 25 percent of hand, 5 percent;

B. total ankylosis in optimum position, 19 percent;

C. total ankylosis in mal-position of extreme flexion or extension, 25 percent;

D. limitation of motion:

(1) mild, rotation normal, loss of 15 degrees palmar flexion and loss of 20 degrees dorsiflexion, 5 percent;

(2) moderate, rotation limited to 60 degrees in pronation-supination, loss of 25 degrees palmar flexion, loss of 30 degrees dorsiflexion, 10 percent; or

(3) severe, rotation limited to 30 degrees in pronation-supination, palmer flexion less than 25 degrees, dorsi-flexion less than 30 degrees, 15 percent.

Subp. 3. **Procedure or conditions.**

A. Colles/Smith, extraarticular:

(1) no loss of motion, 0 percent;

(2) mild loss of motion as defined in subpart 2, item D, subitem (1), 3 percent.

B. Colles/Smith/Barton, intraarticular.

(1) no loss of motion, 0 percent;

(2) mild loss of motion as defined in subpart 2, item D, subitem (1), 6 percent;

(3) moderate loss of motion as defined in subpart 2, item D, subitem (2), 10 percent.

C. Carpal bone fracture, no loss of motion, 3 percent.

D. Carpal dislocation, mild loss of motion as defined in subpart 2, item D, subitem (1), 6 percent.

E. Carpal tunnel release, 0.5 percent.

F. Carpal tunnel release with moderate paresthesias, 3 percent.

G. DeQuervain's release, 0 percent.

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H. Ganglion excision, 0 percent.

I. Scaphoid graft, 3 percent.

5223.0140 MUSCULO-SKELETAL SCHEDULE; FINGERS.

Subpart 1. **General.** Permanent partial disability of fingers is a disability of the whole body as set in subpart 2.

Subp. 2. **Ankylosis of joints.**

A. Thumb.

(1) Total ankylosis interphalangeal joint:

(a) optimum position, 0 to 15 degrees, 8 percent;

(b) mal-position, flexion greater than 15 degrees, 14 percent.

(2) Total ankylosis metacarpophalangeal joint:

(a) optimum position, up to 25 degree flexion, 10.5 percent;

(b) mal-position, flexion greater than 25 degrees, 14 percent.

(3) Total ankylosis both interphalangeal and metacarpophalangeal joints:

(a) optimum position, 16 percent;

(b) mal-position, 18 percent.

(4) Total ankylosis carpometacarpal joint alone:

(a) optimum position, 4 percent;

(b) mal-position, 8 percent.

(5) Total ankylosis interphalangeal, metacarpophalangeal, and carpometacarpophalangeal joints:

(a) optimum position, 19 percent;

(b) mal-position, 21 percent.

(6) Limitation of motion, thumb:

(a) mild, total closing motion tip of digit, can flex to touch palm, and extend to 15 degrees flexion, strength of grip normal, 3 percent;

(b) moderate, total closing motion, tip of digit, lacks 1/2 inch of touching palm and can extend to 30 degrees flexion, 6 percent;

(c) severe, total closing motion tip of

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digit lacks one inch of touching palm and can extend to 45 degrees flexion, 9 percent.

B. Digits other than thumb.

(1) to rate any digit excluding the thumb, find the appropriate descriptive category in item A, then multiply the rating by the following factor for the involved digit:

(a) index finger, multiply by 0.6;

(b) middle finger, multiply by 0.5;

(c) ring finger, multiply by 0.25;

(d) little finger, multiply by 0.125.

(2) Total ankylosis of distal interphalangeal joint, multiply rating in unit (a) or (b) by multiplier for involved digit in subitem (1).

(a) optimum position, 5.5 percent;

(b) mal-position, flexed 35 degrees or more, 8 percent.

C. soft tissue loss, isolated soft tissue loss of the end of digit greater than one centimeter, 20 percent of the disability to the whole body for amputation of that digit as set forth at part 5223.0080.

5223.0150 MUSCULO-SKELETAL SCHEDULE; AMPUTATIONS OF LOWER EXTREMITIES.

For permanent partial disability due to amputation of lower extremities the disability of the whole body is:

A. hemipelvectomy, 50 percent;

B. disarticulation at hip joint, 40 percent;

C. amputation above knee joint with short thigh stump, 3 inch or less below tuberosity of ischium, 40 percent;

D. amputation above knee joint with functional stump, 36 percent;

E. disarticulation at knee joint, 36 percent;

F. amputation below knee joint with short stump, 3 inch or less below intercondular notch, 36 percent;

G. amputation below knee joint with functional stump, 28 percent;

H. amputation at ankle, Syme type, 28 percent;

I. partial amputation of foot, Chopart's type, 21 percent;

J. mid-metatarsal amputation, 14 percent;

K. amputation of all toes at metatarsophalangeal joints, 8 percent;

L. amputation of great toe:

(1) with resection of metatarsal bone, 8 percent;

(2) at metatarsophalangeal joint, 5 percent;

(3) at interphalangeal joint, 4 percent;

M. amputation of lesser toe, 2nd-5th:

(1) with resection of metatarsal bone, 2 percent;

(2) at metatarsophalangeal joint, 1 percent;

(3) at proximal interphalangeal joint, 0 percent;

(4) at distal interphalangeal joint, 0 percent.

5223.0160 MUSCULO-SKELETAL SCHEDULE; NERVE INJURY OR MOTOR AND SENSORY LOSS, LOWER EXTREMITIES.

Subpart 1. **Total loss.** Total loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

A. femoral, anterior crural, 13 percent;

B. femoral, anterior crural, below iliacus nerve, 11 percent;

C. genitofemoral, genito crural, 2 percent;

D. inferior gluteal, 9 percent;

E. lateral femoral cutaneous, 3 percent;

F. posterior cutaneous of thigh, 2 percent;

G. superior gluteal, 7 percent;

H. sciatic, above hamstring innervation, 31 percent;

I. common peroneal, lateral, or external popliteal, 13 percent;

J. deep peroneal, above midshin, 9 percent;

K. deep peroneal, below midshin, anterior tibial, 2 percent;

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L. superficial peroneal, 5 percent;

M. tibial nerve, medial, or internal popliteal:

(1) above knee, 15 percent;

(2) posterior tibial, midcalf and knee, 11 percent;

(3) below midcalf, 9 percent;

(4) lateral plantar branch, 3 percent; or

(5) medial plantar branch, 3 percent;

N. sural, external saphenous, 1 percent;

O. L-4 nerve root, 11 percent;

P. L-5 nerve root, 13 percent;

Q. S-1 nerve root, 15 percent; or

R. Lumbosacral plexus, 40 percent.

Subp. 2. **Partial loss.** Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at subpart 1.

5223.0170 MUSCULO-SKELETAL SCHEDULE; JOINTS.

Subpart 1. **General.** For permanent partial disability of joints, disability of the whole body is set forth in subparts 2 to 9.

Subp. 2. **Surgical or traumatic shortening of lower extremity.**

A. 1/4 inch to 3/4 inch, 3 percent;

B. 3/4 to 1-1/4 inches, 4.5 percent;

C. 1-1/4 to 1-3/4 inches, 6 percent; or

D. 1-3/4 inches and above, 9 percent.

Subp. 3. **Hip.**

A. range of motion.

(1) limitation of motion:

(a) mild, anterior posterior movement from 0 degree to 120 degree flexion, rotation and lateral motion, abduction, adduction free to 50 percent of normal, 6 percent;

(b) moderate, anterior posterior motion from 15 degrees flexion deformity to 110 degrees further flexion, rotation, lateral motion, abduction, and adduction free to 25

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percent normal, 12 percent;

(c) severe, anterior posterior motion from 30 degrees flexion deformity to 90 degrees further flexion, 22 percent.

B. Procedures or conditions:

(1) nonunion proximal femur fracture without reconstruction, 33 percent;

(2) arthroplasty, able to stand at work and walk, motion 25 percent to 50 percent of normal, 18 percent;

(3) total hip arthroplasty, normal result, 13 percent;

(4) femoral endoprosthesis:

(a) minimal pain, near normal range of motion, able to walk unsupported, 15 percent;

(b) mild to moderate pain with weight bearing, motion 50 percent of normal, 20 percent;

(5) hip pinning for fracture.

(a) minimal pain, near normal range of motion, able to walk unsupported, 5 percent;

(b) mild to moderate pain, motion 50 percent of normal, 10 percent.

Subp. 4. **Femur.** Femur:

A. shaft fracture, closed, healed, 0 percent;

B. femoral shaft fracture, open reduction, loss of less than 20 degrees of movement of any one plane of either the hip or the knee, no malalignment, 2 percent.

Subp. 5. **Knee.** Knee:

A. Range of motion.

(1) ankylosis and limited motion, total ankylosis optimum position, 15 degrees flexion, 22 percent;

(2) limitation of motion:

(a) mild, 0 degrees to at least 110 degrees flexion, 2 percent;

(b) moderate, 5 degrees to at least 80 degrees flexion, 7 percent;

(c) severe, 5 degrees to at least 60 degrees

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flexion, 15 percent;

(d) extremely severe, limited from 15 degrees flexion deformity with further flexion to 90 degree, 18 percent.

B. Procedures or conditions:

(1) surgical removal of medial or lateral semilunar cartilage, more than 50 percent of cartilage removed, no complications, 3 percent;

(2) partial meniscectomy, up to 50 percent of the meniscus removed, 2 percent;

(3) surgical removal both cartilages, 9 percent;

(4) ruptured cruciate ligament, repaired or unrepaired:

(a) mild laxity, 3 percent;

(b) moderate laxity, 7 percent;

(c) severe laxity, 10 percent;

(5) excision of patella, 9 percent;

(6) plateau fracture, depressed bone elevated, semilunar excised, 9 percent;

(7) plateau fracture, undisplaced, 2 percent;

(8) supracondylar or intercondylar fracture, displaced, 7 percent;

(9) supracondylar or intercondylar fracture, undisplaced, 2 percent;

(10) patella fracture, open reduction or partial patellectomy, displaced, 5 percent;

(11) patella fracture, open reduction or partial patellectomy, undisplaced, 2 percent;

(12) patellar shaving, 1 percent;

(13) arthroscopy, 0 percent;

(14) repair collateral ligament, mild laxity, 2 percent;

(15) repair collateral ligament, moderate laxity, 4 percent;

(16) repair patellar dislocation, 5 percent;

(17) total knee arthroplasty, flexion to 90

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degrees, extension to 0 degrees, 13 percent;

(18) total knee unicondylar, 7 percent;

(19) lateral retinacular release, 1 percent;

(20) proximal tibial osteotomy, flexion to 90 degrees, extension to 0 degrees, 5 percent.

Subp. 6. **Tibia.** Tibia:

A. tibial shaft fracture, undisplaced, healed, normal motion and alignment, 0 percent;

B. tibial shaft fracture, open reduction, loss of less than 20 degrees of movement in any one plane in either the knee or the ankle with full knee extension, no malalignment, 5 percent.

Subp. 7. **Ankle and foot.**

A. Range of motion:

(1) total ankylosis ankle and foot, pantalar arthrodesis:

(a) in 10 degrees plantar flexion, 15 percent;

(b) mal-position 30 degrees plantar flexion, 20 percent;

(2) ankylosis of foot, subtalar or triple arthrodesis tarsal bones, ankle, normal motion, 7.5 percent;

(a) decreased motion, subtalar joint, 3.5 percent;

(b) ankylosis in mal-position, 8 percent;

(3) ankylosis of tibia and talus, subtalar joints free, optimum position 15 degrees plantar flexion, 12 percent;

(4) limitation of motion in the ankle:

(a) mild, motion limited from position of 90 degrees right angle to 20 degrees plantar flexion, 3 percent;

(b) moderate, motion limited from position of 10 degrees flexion to 20 degrees plantar flexion, 6 percent;

(c) severe, motion limited from position of 20 degrees plantar flexion to 30 degrees plantar flexion, 12 percent.

B. Procedures or conditions:

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(1) achilles tendon rupture with treatment surgically or nonsurgically, able to stand on toes, 2 percent;

(2) achilles tendon rupture with treatment surgically or nonsurgically, unable to sustain body weight on toes, 4 percent;

(3) open reduction ankle:

(a) normal range of motion:

i. medial malleolus only, 2 percent;

ii. lateral malleolus only, 2 percent;

(b) normal to mild restriction on range of motion:

i. medial and lateral malleolus, 4 percent;

ii. trimalleolar, 4 percent;

(c) for moderate to severe restriction of range of motion in the ankle, rate as in item A, subitem (4);

(4) ankle, lateral ligament reconstruction, mild laxity, normal range of motion, 2 percent;

(5) ankle, lateral ligament reconstruction, moderate laxity, at least ten degrees greater widening on the Talar tilt stress test X-ray compared to the uninjured side, 3 percent.

Subp. 8. **Foot.**

A. Range of motion:

(1) ankylosis of tarsal metatarsal or mild tarsal joints:

(a) normal position, 2.5 percent;

(b) mal-position, 5 percent;

(2) limited motion in the foot:

(a) mild, limited motion with mild pain with weight bearing, no change in activities, 2.5 percent;

(b) moderate, limitation of motion with pain with weight bearing, no reduction in athletic or vigorous activities, 5 percent;

(c) severe, limitation of motion with pain with weight bearing, sedentary activities not affected, 10

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percent;

B. Procedures or conditions:

(1) calcaneal fracture, extra articular, pain with weight bearing, 6 percent;

(2) calcaneal fracture, intra articular:

(a) mild limitation of motion as in item A, subitem (2), unit (a), 6 percent;

(b) moderate limitation of motion as in item A, subitem (2), unit (b), 12 percent;

(c) severe limitation of motion as in item A, subitem (2), unit (c), 18 percent;

(3) avascular necrosis talus:

(a) mild limitation of motion as in item A, subitem (2), unit (a), 6 percent;

(b) moderate limitation of motion as in item A, subitem (2), unit (b), 12 percent;

(c) severe limitation of motion as in item A, subitem (2), unit (c) 18 percent;

(4) tarsal fractures, healed, mild pain, 3 percent;

(5) metatarsal fractures, healed, 0 percent;

(6) phalyngeal fractures, healed, 0 percent.

Subp. 9. **Toes.**

A. Complete ankylosis of metatarsophalangeal joint, any toe, 3 percent;

B. complete ankylosis any toe, interphalangeal joint, optimum position semi-flexion, 1 percent.

5223.0180 RESPIRATORY SYSTEM.

Subpart 1. **Evaluation procedures.** The procedures used in evaluating permanent partial disability of the respiratory system shall include the following:

A. complete history and physical examination with special reference to cardiopulmonary symptoms and signs;

B. chest roentgenography (posteroanterior in full inspiration, posteroanterior in full expiration timed, three seconds, lateral);

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C. hematocrit or hemoglobin determination;

D. electrocardiogram;

E. performance of the following tests of ventilation:

(1) one second forced expiratory volume (FEV1), expressed as a percentage of the normal values set forth in the A.M.A. Guides, pages 69 and 71;

(2) forced vital capacity (FVC), expressed as a percentage of the normal values set forth in the A.M.A. Guides, pages 70 and 72.

F. diffusing capacity studies must be performed when complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits.

Subp. 2. **Measurement of respiratory loss of function.** Table 1 shall be used to calculate the percentage of disability of the whole body due to permanent partial disability of the respiratory system.

TABLE 1

	Forced Spirometry Measurements 1/2 (FEV1 + FVC) (Test three times)	Diffusing Capacity*	Percent Disability of Whole Body
Symptoms			
When dyspnea occurs, is consistent with the circumstances of activity.	Not less than 85 percent of normal	Not Applicable	0
Dyspnea does not occur at rest and seldom occurs during the performance	70 to 85 percent of normal	Not Applicable	15

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of the usual activities of daily living.			
Dyspnea does not occur at rest but does occur during the usual activities of daily living.	50 to 70 percent of normal	Usually Not Applicable	30
Dyspnea occurs during activities such as climbing one flight of stairs or walking one block on the level.	25 to 50 percent of normal	40 percent or less of normal	60
Confined to bed and oxygen dependent.	Less than 25 percent of normal	20 percent or less of normal	85

* The diffusing capacity studies must be performed when complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits set forth in Table 1.

Subp. 3. **Asthma.** Asthma which is not medically controllable and which requires at least six hospitalizations in 12 months, 25 percent.

5223.0190 ORGANIC HEART DISEASE.

Subpart 1. **General.** For permanent partial disability due

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to organic heart disease, the disability of the whole body is set forth in subpart 2.

Subp. 2. **Heart ratings.** The following ratings may be applied only after a compilation of a patient's complete history and a physical examination. Testing must include chest X-ray and electrocardiogram. The testing may include echocardiography, exercise testing, and radionuclide studies.

The following table sets forth symptoms of organic heart disease. The percentage of disability of the whole body is determined by the symptoms present.

Organic Heart Disease Schedule

Percentage Disability of Whole Body	10 percent	30 percent	60 percent	85 percent
Organic Heart Disease	Present	Present	Present	Present
Symptoms	Not present	Not present at rest	Not present at rest	Present at rest
Level of activity causing symptoms	No symptoms from usual activities of daily living, including such activities as stair- or hill-climbing, and walking	No symptoms from usual activities of daily living	Symptoms from a one or more block walk or from climbing stairs. Symptoms also from activities of daily living	Worsening of symptoms with any activity

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Level of unusual activity causing symptoms	No symptoms from walking quickly, recreation, hill- or stair-climbing, arm-work, and similar activities	Symptoms from hill- or stair-climbing, walking quickly, arm-work, or recreation	Symptoms from emotional stress, walking quickly, and similar activities	May be present at rest or may awaken patient
Signs of heart failure	No	No	Relieved by therapy	Not usually relieved by therapy
Signs of symptoms of angina	No	With prolonged or severe exertion	With mild exertion	Rest or nocturnal symptoms
Objective tests of functional status	Ischemic S-T segment changes of at least 1 mm at or before stage 3 of a Bruce protocol exercise test, or diagnostic ischemic changes at a level of	Ischemic S-T segment changes of at least 1 mm at or before stage 2 of a Bruce protocol exercise test, or diagnostic ischemic changes at a level of	Ischemic S-T segment changes of at least 1 mm at or before stage 1 of a Bruce protocol exercise test, or diagnostic ischemic changes at a level of	Diagnostic ischemic S-T segment changes of at least 1 mm on resting electro-cardiogram

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7 METS or less in a nuclear isotope exercise study	4 METS or less in a nuclear isotope exercise study	2 METS or less in a nuclear isotope exercise study

5223.0200 VASCULAR DISEASE AFFECTING EXTREMITIES.

The following schedule shall be used to determine the percentage of disability of the whole body for permanent partial disability due to vascular disease. Permanent partial disability from vascular disease affecting the extremities must be rated according to the following classifications. The system shall be used only after a complete history and physical examination. The full evaluation shall include imaging examination (X-ray with and without contrast, computer axial tomography scanning, sonography, radionuclide studies) volume studies, or flow studies.

A. Vascular disease schedule, lower extremities.

Percentage of Disability of Whole Body

	0 percent	10 percent	30 percent	60 percent	90 percent
Intermittant claudication distance	No	Approx. one city block	Approx. 1/4 city block	Less than 1/4 city block	Constant pain
Pain at rest	No	No	No	Sometimes	Constant
Physical signs of diagnosis	None No ulceration	Healed, painless stump, or healed ulcer	Healed stump but persistent signs of activity,	Amputation above wrist or ankle with con-	Amputation above wrist or ankle in more

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			or persistent superficial ulcer	tinued sign of disease, or widespread deep ulcer	than one limb, or wide, deep ulceration of more than one limb
Edema	Rare and transient	Persistent, incompletely controlled	Very severe and only partially controlled	Marked and uncontrollable	Marked and uncontrollable

B. Peripheral vascular disease, upper extremities.

(1) Class 1. The following findings are present: Decreased pulse or pulses; minimal loss of subcutaneous tissue of fingertips; calcification of arteries as detected by radiographic examination or Raynaud's phenomenon that occurs with exposure to temperature lower than zero degrees centigrade (32 degrees Fahrenheit) but is readily controlled by medication; 0 percent.

(2) Class 2. Objective signs of vascular damage as evidenced by findings such as that of a healed, painless stump of an amputated digit showing evidence of persistent vascular disease, or of a healed ulcer; and Raynaud's phenomenon occurs on exposures lower than four degrees centigrade (39 degrees Fahrenheit) but is controlled by medication, 10 percent.

(3) Class 3. Objective signs of vascular damage as evidenced by healed amputation of two or more digits of one extremity, with evidence of persisting vascular disease or superficial ulceration; and Raynaud's phenomenon occurs on exposure to temperatures lower than ten degrees centigrade (50 degrees Fahrenheit) and it is only partially controlled by medication; 30 percent.

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(4) Class 4. Objective evidence of vascular damage as evidenced by signs such as amputation of two or more digits of two extremities with evidence of persistent vascular disease, or persistent widespread or deep ulceration involving one extremity; and Raynaud's phenomenon occurs on exposure to temperatures lower than 15 degrees centigrade (59 degrees Fahrenheit) and is only partially controlled by medication; 54 percent.

5223.0210 GASTROINTESTINAL TRACT.

Subpart 1. **General.** The following schedule is for the evaluation of permanent partial disability of the gastrointestinal tract. The evaluation must include a thorough history and physical examination. Additional studies, such as radiographic, metabolic, absorptive, endoscopic, and biopsy may be necessary to determine the functioning of these organs. Disability shall not be determined until after completion of all medically accepted diagnostic and therapeutic efforts. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.

For evaluative purposes, the digestive tract has been divided into (1) the esophagus, stomach, duodenum, small intestine, and pancreas, (2) the colon and rectum, (3) the anus, and (4) the liver and biliary tract.

Subp. 2. **Upper digestive tract (esophagus, stomach, duodenum, small intestine, and pancreas).**

A. Class 1, 2 percent.

(1) Symptoms or signs of upper digestive tract disease are present and there is anatomic loss or alteration; continuous treatment is not required; and weight can be maintained at the desirable level; or

(2) There are no complications after surgical procedures.

B. Class 2, 15 percent. Symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; dietary restriction and drugs are required for control of symptoms, signs, or nutritional

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deficiency; and loss of weight below the desirable weight does not exceed 10 percent.

C. Class 3, 35 percent.

(1) symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and dietary restrictions and drugs do not completely control symptoms, signs, or nutritional state; or

(2) there is 10 to 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.

D. Class 4, 65 percent.

(1) symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and symptoms are not controlled by treatment; or

(2) there is greater than a 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.

Subp. 3. **Colon and rectum.**

A. Class 1, 2 percent:

(1) signs and symptoms of colonic or rectal disease are infrequent;

(2) limitation of activities, special diet, or medication is not required; no systemic manifestations are present and weight and nutritional state can be maintained at a desirable level; or

(3) there are no complications after surgical procedures.

B. Class 2, 15 percent. There is objective evidence of colonic or rectal disease and anatomic loss or alteration. There are mild gastrointestinal symptoms with intermittent disturbance of bowel function, accompanied by periodic or continual pain. Minimal restriction of diet or mild symptomatic therapy may be necessary. No impairment of nutrition results.

C. Class 3, 30 percent. There is objective evidence of colonic or rectal disease and anatomic loss or alteration; there are moderate to severe exacerbations with disturbance of

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bowel habit, accompanied by periodic or continual pain; restriction of activity, special diet and drugs are required during attacks; and there are constitutional manifestations such as fever, anemia, or weight loss.

D. Class 4, 50 percent. There is objective evidence of colonic and rectal disease or anatomic loss or alteration; there are persistent disturbances of bowel function present at rest with severe persistent pain; complete limitation of activity, continued restriction of diet, and medication do not entirely control the symptoms; there are constitutional manifestations such as fever, weight loss, or anemia present; and there is no prolonged remission.

Subp. 4. **Anus.**

A. Class 1, 2 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; or there is mild incontinence involving gas or liquid stool; or anal symptoms are mild, intermittent, and controlled by treatment.

B. Class 2, 12 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; and moderate but partial fecal incontinence is present requiring continual treatment; or continual anal symptoms are present and incompletely controlled by treatment.

C. Class 3, 22 percent.

(1) signs of organic anal diseases are present and there is anatomic loss or alteration; and complete fecal incontinence is present; or

(2) signs of organic anal disease are present and severe anal symptoms are unresponsive or not amenable to therapy.

Subp. 5. **Liver and biliary tract.**

A. Class 1, 5 percent.

(1) There is objective evidence of persistent liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate minimal disturbance of the liver function; or

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(2) Primary disorders of bilirubin metabolism are present.

B. Class 2, 20 percent. There is objective evidence of chronic liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate more severe liver damage than Class 1.

C. Class 3, 40 percent. There is objective evidence of progressive chronic liver disease, or history of jaundice, ascites, or bleeding esophageal or gastric varices within the past year; nutrition and strength may be affected; and there is intermittent ammonia and meat intoxication.

D. Class 4, 75 percent. There is objective evidence of progressive chronic liver disease, or persistent ascites or persistent jaundice or bleeding esophageal or gastric varices, with central nervous system manifestations or hepatic insufficiency; and nutrition state is below normal.

Subp. 6. Biliary tract.

A. Class 1, 5 percent. There is an occasional episode of biliary tract dysfunction.

B. Class 2, 20 percent. There is recurrent biliary tract impairment irrespective of treatment.

C. Class 3, 40 percent. There is irreparable obstruction of the bile tract with recurrent cholangitis.

D. Class 4, 75 percent. There is persistent jaundice and progressive liver disease due to obstruction of the common bile duct.

5223.0220 REPRODUCTIVE AND URINARY TRACT SCHEDULE.

Subpart 1. **General.** This part sets forth the percentage of disability of the whole body for permanent partial disability of the reproductive and urinary systems. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.

Subp. 2. **Evaluative procedures.** For evaluative purposes the reproductive and urinary systems are divided into the: (1)

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upper urinary tract, (2) bladder, (3) urethra, (4) male reproductive organs, and (5) female reproductive organs.

Procedures for evaluating permanent partial disability of the genitourinary and reproductive systems shall include:

A. a complete history and physical examination with special reference to genitourinary/reproductive symptoms and signs, including psychological evaluation when indicated by the symptoms;

B. laboratory tests to identify the presence or absence of associated disease. The tests may include multi-channel chemistry profile, complete blood count, complete urinalysis, including microscopic examination of centrifuged sediment, chest X-ray, both posterior/anterior and left lateral views, electrocardiogram, performance of a measurement of total renal functions--endogenous creatinine clearance corrected for total body surface area. Other tests may include:

(1) kidney function tests, such as arterial blood gases and determinations of other chemistries that would reflect the metabolic effects of decreased kidney function;

(2) special examinations such as cystocopy, voiding cystograms, cystometrograms;

(3) a description of the anatomy of the reproduction or urinary system;

(4) urodynamics, specifically cystometry combined with electromyography of the external uretheral sphincter to evaluate for presumed upper or lower motor neuron neurogenic bladder; and

(5) nocturnal penile tumescence monitoring with paper or computer printout that displays frequency, duration, and, whenever possible, rigidity of erections.

Subp. 3. **Upper urinary tract.**

A. Solitary kidney, 10 percent. This category shall apply only when a solitary kidney is the only upper urinary tract permanent partial disability. When a solitary kidney occurs in combination with any one of the following four classes, the disability rating for that class shall be increased

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by 10 percent.

B. Class 1, 5 percent. Diminution of kidney function as evidenced by a creatinine clearance of 50 to 70 percent of age and sex adjusted normal values, other underlying causes absent.

C. Class 2, 22 percent. Diminution of the upper urinary tract function as evidenced by a creatinine clearance of 40 to 50 percent of age and sex adjusted normal values, no other underlying disease.

D. Class 3, 47 percent. Diminution of upper urinary tract function, as evidenced by creatinine clearance of 25 to 40 percent of age and sex adjusted normal values.

E. Class 4, 77 percent. Diminution of upper urinary tract function as evidenced by creatinine clearance below 25 percent of age and sex adjusted normal values.

Subp. 4. **Bladder.**

A. Class 1, 5 percent. Symptoms and signs of bladder disorder requiring intermittent treatment, but without evidence of intervening malfunction between periods of treatments or symptomatology.

B. Class 2, 15 percent. Symptoms and signs of bladder disorder requiring continuous treatment, or there is bladder reflex activity but loss of voluntary control.

C. Class 3, 20 percent. Poor reflex activity evidenced by intermittent dribbling, and no voluntary control.

D. Class 4, 30 percent. Continuous dribbling.

Subp. 5. **Urethra.**

A. Class 1, 2 percent. Symptoms and signs of urethral disorder are present which require intermittent therapy for control.

B. Class 2, 15 percent. Symptoms and signs of urethral disorder that cannot be effectively controlled by treatment.

Subp. 6. **Penis.**

A. Class 1, 10 percent. Impaired sexual function but vaginal penetration is possible, with supporting objective

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evidence of abnormal penile tumescence studies to substantiate impaired tumescence or rigidity.

B. Class 2, 20 percent. Impaired sexual function and vaginal penetration is not possible, with supporting objective evidence of insufficient penile tumescence or rigidity.

C. Psychogenic impotence, 0 percent.

Subp. 7. **Testes, epididymides, and spermatic cords.**

A. Class 1, 5 percent.

(1) symptoms and signs of testicular, epididymal, or spermatic cord disease are present and there is anatomic alteration; and

(2) continuous treatment is not required; and

(3) there are no abnormalities of seminal or hormonal functions; or

(4) solitary teste is present.

B. Class 2, 10 percent.

(1) symptoms and signs of testicular, epididymal or spermatic cord disease are present and there is anatomic alteration; and

(2) frequent or continuous treatment is required; and

(3) there are detectable seminal or hormonal abnormalities.

C. Class 3, 20 percent. Trauma or disease produces bilateral anatomical loss or there is no detectable seminal or hormonal function of testes, epididymides, or spermatic cords.

D. Inguinal hernia, direct or indirect, unilateral or bilateral, recurrent after two or more herniorrhaphies, 5 percent.

Subp. 8. **Prostate and seminal vesicles.**

A. Class 1, 5 percent.

(1) there are symptoms and signs of prostatic or seminal vesicular dysfunction or disease;

(2) anatomic alteration is present; and

(3) continuous treatment is not required.

B. Class 2, 10 percent.

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(1) frequent severe symptoms and signs of prostatic or seminal vesicular dysfunction or disease are present; and

(2) anatomic alteration is present; and

(3) continuous treatment is required.

C. Class 3, 20 percent. There has been ablation of the prostate or seminal vesicles.

Subp. 9. **Vulva and vagina.**

A. Class 1, 10 percent. Impaired sexual function but penile containment is possible.

B. Class 2, 20 percent. Impaired sexual function and penile containment is not possible.

Subp. 10. **Cervix and uterus.**

A. Class 1, 5 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which do not require continuous treatment; or

(2) cervical stenosis, if present, requires no treatment; or

(3) there is anatomic loss of the cervix or uterus in the postmenopausal years.

B. Class 2, 10 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which require continuous treatment; or

(2) cervical stenosis, if present, requires periodic treatment.

C. Class 3, 20 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which are not controlled by treatment; or

(2) cervical stenosis is complete; or

(3) anatomic or complete functional loss of the cervix or uterus occurs in premenopausal years.

Subp. 11. **Fallopian tubes and ovaries.**

A. Class 1, 5 percent.

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(1) symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which do not require continuous treatment; or

(2) only one fallopian tube or ovary is functioning in the premenopausal years.

B. Class 2, 10 percent. Symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which require continuous treatment, but tubal patency persists and ovulation is possible.

C. Class 3, 20 percent.

(1) symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present and there is total loss of tubal patency or total failure to produce ova in the premenopausal years; or

(2) bilateral loss of the fallopian tubes or ovaries occurs in the premenopausal years.

5223.0230 SKIN DISORDERS.

Permanent partial disability resulting from skin disorders are a disability of the whole body as set forth in this part. This schedule is based upon the effect of the disorder on the ability to function and perform activities of daily living and the degree of treatment required for the disorder. The schedule is not based upon the location or the percentage of the body affected by a specific skin disorder. Impairment due to burns shall be rated under part 5223.0240 and not under this schedule.

A. Class 1, 2 percent. Signs or symptoms of skin disorder are present and supported by objective skin findings. With treatment there is no or minimal limitation in the performance of the activities of daily living, although certain physical or chemical agents might temporarily increase the extent of limitation.

B. Class 2, 10 percent. Signs and symptoms of skin disorder are present and intermittent treatment is required. There is limitation in the performance of some of the activities of daily living.

C. Class 3, 20 percent. Signs and symptoms of skin

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disorder are present. Continuous treatment is required. There is limitation in the performance of many of the activities of daily living.

D. Class 4, 45 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which may include periodic confinement at home or other domicile. There is limitation in the performance of many of the activities of daily living.

E. Class 5, 70 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which necessitates confinement at home or other domicile. There is severe limitation in the performance of nearly all of the activities of daily living.

5223.0240 BURNS.

Subpart 1. **General.** The whole body disability due to burns is not equal to the percent of body surface area which is burned. The percentage of body surface area affected must be determined according to Lund and Browder. The ratings determined under subparts 1 to 4 must be combined as set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c), provided that the maximum disability to the whole body under this schedule must not exceed 70 percent. Loss of motion or body parts except the face must be rated under the musculoskeletal schedules and must not be considered as included in a rating under this part unless specifically provided otherwise.

Subp. 2. **Burns other than electrical conduction.** A rating under this part is the rating assigned by items A to F combined as provided in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c):

A. Any burn that heals within one month and leaves no hypertrophic scar, 0 percent.

B. Cold intolerance of the hands, face, or head as evidenced by the wearing of heavy gloves or additional scarves at 35 degrees Fahrenheit; a scar of at least ten square centimeters must be present for an affected member to be rated

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under this item:

(1) dominant hand, 4 percent;

(2) nondominant hand, 3 percent;

(3) both hands, 6 percent;

(4) face, 3 percent; or

(5) face and both hands, 10 percent.

C. Heat intolerance is evidenced by fatigue, malaise, nausea, and an oral temperature of at least 100 degrees Fahrenheit upon exposure to an environmental temperature of 90 degrees Fahrenheit at 60 percent relative humidity, 5 percent.

D. Sensitivity to sun exposure as evidenced by the need to cover the skin or use sun screen to prevent sunburn; a scar of at least ten square centimeters must be present for an affected member to be rated under this item:

(1) dominant hand, 4 percent;

(2) nondominant hand, 3 percent;

(3) both hands, 6 percent;

(4) face, 3 percent; or

(5) face and both hands, 10 percent.

E. Sensitivity to dust, chemical, or petroleum exposure; altered sweating; or apocrine gland dysfunction. For one or any combination of these conditions, the whole body disability is:

(1) If the sensitivity affects less than 5 percent of the body surface area, 0 percent.

(2) If the sensitivity affects 5 to 20 percent of the body surface area, 2 percent.

(3) If the sensitivity affects 20 percent or more of the body surface area, 3 percent.

F. Sensory loss due to burns:

(1) Loss of sensation on palmar surface of hands shall be rated as provided by part 5223.0090, subpart 3.

(2) Sensory loss in less than 5 percent of the body surface area, 0 percent.

(3) Sensory loss in 5 to 20 percent of the body surface area, 2 percent.

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(4) Sensory loss in more than 20 percent of the body surface area, 5 percent.

Subp. 3. **Electrical conduction injuries.**

A. Associated sensory loss and concommitant thermal injuries must be rated as provided in subpart 1.

B. Peripheral nerve deficits must be rated as provided in the musculoskeletal schedule.

The ratings under items A and B must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

Subp. 4. **Cosmetic disfigurement.** This part applies to disfigurement on the face, the head, the neck, or the hands due to burns. Where there is surgery, this rating is done after correction by plastic surgery. The final rating under this schedule shall not be done until hypertrophic scarring is matured or more than 24 months after the injury. The ratings under the items of this part must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

A. The face is the anterior head from the forehead, to and including the chin.

(1) Loss of facial features:

(a) Deformity of nasal tip or deformity, thinning, or eversion of ala nasi, 5 percent.

(b) Loss of more than 50 percent of nasal cartilage or of both ala nasi, 25 percent.

(2) Eyes:

(a) Loss of one eyebrow, 2.5 percent.

(b) Loss of two eyebrows, 5 percent.

(c) Ectropian unaccompanied by visual impairment:

i. Lower lid pulled from eye when mouth is opened and neck extended, 5 percent.

ii. Lower lid pulled away with no movement of face or neck, 10 percent.

iii. Cornea unprotected when sleeping,

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15 percent.

(d) Epiphora unaccompanied by visual impairment, 10 percent.

(3) Mouth. A rating under this subitem is the arithmetic sum of units (a) to (d).

(a) Noncongenital microstomia or distortion affecting eating and dental hygiene, 10 percent.

(b) Eversion of the upper lip, 7.5 percent.

(c) Eversion of the lower lip, 7.5 percent.

(d) Distortion of vermillion border, 10 percent.

(4) Ear. Loss of 75 percent or more of one external ear, 5 percent.

(5) Hypertrophic scarring of face in areas other than those covered in subitems (1) to (4):

(a) Affecting only forehead above the eyebrows, 10 percent.

(b) Affecting the lower face from eyebrows to chin, 25 percent.

(c) Affecting both the forehead above the eyebrows and the lower face from the eyebrows to chin, 35 percent.

(6) Wrinkling of face in areas other than those covered in subitems (1) to (5), one-third of percentages in subitem (5).

B. Head, Alopecia:

(1) Anterior hairline:

(a) Loss of less than 20 percent of hair on anterior hairline, 0 percent.

(b) Loss of 20 to 50 percent of hair on anterior hairline, 2 percent.

(c) Loss of more than 50 percent of hair on anterior hairline, 3 percent.

(2) Elsewhere on head and not affecting anterior hairline:

(a) Loss of 0 to 15 percent of hair, 0

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percent.

(b) Loss of 15 to 30 percent of hair, 1 percent.

(c) Loss of 20 to 50 percent of hair, 2 percent.

(d) Loss of more than 50 percent of hair, 3 percent.

The ratings under subitems (1) and (2) must be combined as set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

C. The anterior neck extends from the ear lobule anteriorally to the ear lobule and downward to mid clavicle. Disfigurement on the posterior neck from the ear lobule posteriorally to the ear lobule shall not be rated under this rule. Ratings under subitems (1) and (2) shall be combined as set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

(1) Hypertrophic scarring or banding:

(a) Affecting less than 10 percent of the anterior neck, 0 percent.

(b) Affecting 10 to 30 percent of the anterior neck, 10 percent.

(c) Affecting 30 to 50 percent of the anterior neck, 12 percent.

(d) Affecting more than 50 percent of the anterior neck, 15 percent.

(2) The chin shelf is the area from the chin backwards to the neck.

(a) Chin shelf extends less than 2 inches, 3 percent.

(b) Chin shelf extends less than 1 inch, 10 percent.

D. The hand extends from the carpus outward. Loss of body parts and loss of motion are rated in the musculoskeletal schedule.

(1) Hypertrophic scarring affecting less than 30

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percent of dorsum of one hand, 0 percent.

(2) Hypertrophic scarring affecting 30 to 50 percent of dorsum of one hand, 3 percent.

(3) Hypertrophic scarring affecting 50 percent or more of dorsum of one hand, 7 percent.

5223.0250 PREEXISTING IMPAIRMENTS.

Where a disability is subject to apportionment under Minnesota Statutes, section 176.101, subdivision 4a, the rating for the disabled condition under a category of the schedules of this chapter must be reduced as provided in this part. As used in this part, the term disabled condition includes the preexisting disability.

A. This part applies where the preexisting disability has not been rated and neither item B nor C is applicable.

(1) The preexisting disability must be rated under a category of the schedules of this chapter.

(2) The whole body disability rating assigned to the disabled condition of the member by the schedules of this chapter must be reduced by the rating assigned to the preexisting disability of the member in subitem (1).

(3) For example, the medical report establishes a preexisting impairment of amputation of the index finger at the metacarpophalangeal joint. This injury is a 13.5 percent preexisting disability to the body as a whole under part 5223.0080, subpart 1, item L, subitem (1). The disabled condition is amputation of all fingers except the thumb at the metacarpophalangeal joint, a 32.5 percent disability under part 5223.0080, subpart 1, item J, 32.5 percent less 13.5 percent gives the disability (adjusted for the preexisting impairment) of 19 percent. Payment is made for the 19 percent disability at the rate appropriate for a 32.5 percent disability. Thus, if economic recovery benefits are paid, 19 percent is multiplied by 680 weeks; for impairment benefits, 19 percent is multiplied by $85,000.

B. This item applies where the preexisting disability of a member has been rated in another proceeding or state and

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the rating represents a percentage of disability to the whole body. The rating of the disabled condition under a category of these schedules shall be reduced by the rating assigned to the preexisting disability of the member.

C. This item applies where the injury producing the preexisting disability occurred prior to January 1, 1984, and the preexisting disability has been rated under Minnesota Statutes, section 176.101, subdivision 3; or where Minnesota Statutes, chapter 176 is inapplicable and the rating represents a percentage of disability of a member.

(1) From Table 1, determine the maximum whole body disability assignable to the preexisting disability. Use Table 2 where disability to an internal organ is rated as a percentage of disability to the particular organ rather than a percentage of disability to internal organs. Where the preexisting disability is not listed in Table 1 or Table 2, the maximum whole body disability is the maximum disability assigned to the affected member by the schedules of this chapter.

TABLE 1

Member	Maximum Whole Body Disability (Percent)
Thumb	16
Index finger	11
Middle finger	9
Ring finger	4
Little finger	2
Great toe	5
Lesser toe	1
Hand	54
Hand and wrist	54
Arm	60
Foot	21
Foot and ankle	28
Leg	40

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Eye	24
Eyes (both)	85
Hearing loss, (one ear)	6
Hearing loss (both ears)	35
Back	71
Voice	70
Burns and skin impairments, including disfigurement	70
Internal organs, excluding brain	85
Brain	100
Head	20

TABLE 2

Member	Maximum Whole Body Disability (Percent)
Stomach	65
Pancreas	65
Colon	50
Spleen	0
Bladder	30
Sexual organs or function	20
Circulatory system	90
Heart	85
Lungs	85
Liver	75
Solitary kidney	10
Kidney, excluding solitary kidney	77

(2) Multiply the prior rating of the member's preexisting disability by the maximum whole body disability determined in subitem (1). Where a disputed rating has been closed out to a stipulated rating but payments were made on a different rating, the rating for purposes of this part is the

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closed-out rating.

(3) Subtract the percentage amount determined in subitem (2) from the whole body disability rating assigned to the disabled condition of the member by the schedules of this chapter. The remainder is the amount due for the disabled condition after apportionment for the preexisting disability.

(4) For example, a pre-1984 back injury was rated at 25 percent of the back. The whole body disability attributable to this injury is 25 percent by 71 percent equals 17.75 percent. After 1984, a second back injury is rated at 24.5 percent under this chapter (24.5 percent minus 17.75 percent equals 6.75 percent). Six and three-fourths (6.75) percent is the amount assigned to the disabled condition after apportionment.

D. Where both Minnesota Statutes, sections 176.101, subdivision 4a, and 176.105, subdivision 4, paragraph (c) apply, apportionment must be determined as follows:

(1) For each member, determine the percentage of whole body disability under items A to C, as appropriate.

(2) Combine the percentages obtained in subitem (1) in the manner set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c). Prior to the next application of the formula, the result of an application of the formula must be stated as a decimal, not as a percentage, that is rounded up or down to four decimal places.

APPROVED IN THE
REVISOR OF STATUTES
OFFICE BY:

OFFICE OF THE REVISOR OF STATUTES
Proposed Rule

RD788

Agency: Department of Labor and Industry

Agency Contact: Joan Volz

Minnesota Rules: Parts 5223.0010 to 5223.0250

Title: Proposed Rules Governing Workers' Compensation Permanent Partial Disability Schedules

Type of Rules: Permanent

Incorporations by Reference:

Rule Number:	Material Incorporated:
5223.0010	Fractures, Charles A. Rockwood and David Green, 1975
5223.0010	Textbook on Anatomy, William Henry Hollinshead, 1974
5223.0010	The Estimation of Areas of Burns, Volume 79, 1944
5223.0010, 5223.0020	Dorland's Illustrated Medical Dictionary, 26th Edition, 1981
5223.0010, 5223.0020	Metropolitan Life Insurance Company Weight Tables (1983)
5223.0010, 5223.0020 5223.0030	Snellen Chart, published by the American Medical Association Committee for Eye Injuries
5223.0010, 5223.0020, 5223.0030	American Medical Association Charts
5223.0010, 5223.0020, 5223.0060	Kenny Scale, The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence of Activities of Daily Living
5223.0010, 5223.0020, 5223.0030	American Medical Association Reading Card of 1932, published by the American Medical Association Committee for Eye Injuries (A.M.A. Card)
5223.0010	Guides to the Evaluation of Permanent Impairment, published by the American Medical Association, Committee on Rating of Mental and Physical Impairment, Second Edition 1984. "A.M.A. Guides"
5223.0010, 5223.0040	ANSI S.3.6-1969, Specification for Audiometers
5223.0010, 5223.0040	ANSI S.3.1-1977, Standards for Background Noise and Audiometric Rooms
5223.0010, 5223.0060	D.S.M. III, Diagnostic and Statistical Manual of Mental Disroders, American Psychiatric Association, 1980

Duplication of Statutory Language: None

Steven C. Cross
Revisor of Statutes

John C. Fuller
Assistant Deputy Revisor
Phone: 296-0955
Date: July 8, 1985

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

ORDER ADOPTING RULES WITHOUT A PUBLIC HEARING

Notice of intent to adopt the above-captioned rules without a public hearing was published in the State Register on August 5, 1985, and was sent by United States mail to all persons and groups on the list maintained by the Department of Labor and Industry, Workers' Compensation Division, pursuant to Minn. Stat. § 14.22 (1984) on July 31, 1985. After affording interested persons and groups an opportunity to submit comments and requests for a hearing for 30 days after notice, receiving fewer than 25 written requests for a public hearing within the 30-day comment period, reviewing and considering the comments, and determining the need for and reasonableness of the above-captioned rules,

NOW, THEREFORE, IT IS ORDERED that the Rules Governing Permanent Partial Disability are adopted pursuant to the authority vested in me by Minn. Stat. § 176.105 (1984).

STATE OF MINNESOTA

Steve Keefe

Steve Keefe, Commissioner
Department of Labor and Industry

Dated: September 23, 1985.

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

ORDER FOR PUBLICATION AND FOR NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING

IT IS ORDERED THIS 12th day of July, 1985, that a Notice of Intent to Adopt Rules Without a Public Hearing in the above-captioned matter be given to all persons and groups who have requested that their names be placed on the list maintained by the Minnesota Department of Labor and Industry for that purpose pursuant to Minn. Stat. § 14.22 (1984) and be published in the State Register.

STATE OF MINNESOTA

Steve Keefe

Steve Keefe, Commissioner
Department of Labor and Industry

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING

Notice is hereby given that the Department of Labor and Industry, Workers' Compensation Division, proposes to adopt the above-captioned rules without a public hearing. The Department has determined that the proposed adoption of these rules will be noncontroversial in nature and has elected to follow the procedures set forth in Minn. Stat. §§ 14.21 - 14.28 (1984)

Persons or groups interested in these rules shall have 30 days to submit comments on the proposed rules. Comments in support of or in opposition to the proposed rules are encouraged. Each comment should identify the portion of the proposed rules addressed, the reason for the comment, and any change proposed. The proposed rules may be modified if the modifications are supported by the data and views submitted to the Department and do not result in a substantial change in the proposed language.

A public hearing will be held if 25 or more persons submit written requests for a public hearing on the proposed rules within the 30-day comment period. If a public hearing is required, the Department will proceed according to the provisions of Minn. Stat. §§ 14.131 - 14.20 (1984). Any person requesting a public hearing should state his or her name and address, and is encouraged to identify the portion of the proposed rules addressed, the reason for the request, and any change proposed.

Comments or written requests for a public hearing should be submitted to:

Steve Keefe
Commissioner, Department of Labor and Industry
5th Floor, Space Center Bldg.
444 Lafayette Road
St. Paul, Minnesota 55101
(612) 296-2342

Authority for the adoption of these rules is contained in Minn. Stat. § 176.105, (1984). A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rules, identifies the data and information relied upon to support the proposed rules and assesses the impact of the proposed rules on small business and on local public bodies has been prepared and is available from the Commissioner upon request at the above address.

The proposed rules will have no qualitative or quantitative impact on non-exempt small businesses. The rules affect disability payments made by insurers and self-insurers, both of which are large businesses. They also affect the methods by which health care providers determine permanent partial disability.

Upon adoption of the final rules without a public hearing, all jurisdictional documents, the Statement of Need and Reasonableness, all written comments and requests for hearing received, and the final rules as adopted, will be delivered to the Attorney General. The rules will then be reviewed by the Attorney General for legality and form as it relates to legality, including the issues of substantial change, the agency's authority to adopt the rules and the existence of a rational basis for the need for and reasonableness of the proposed rules. Persons who wish to be notified of the submission of this material to the Attorney General, including modifications to the rules as originally proposed, or who wish to receive a free copy of the final rules as adopted, should submit a written request to the Commissioner at the above address.

The text of the proposed rules follows this notice in the State Register. These proposed rules essentially make permanent the current permanent partial disability rules, 8 MCAR § 1.9001-1.9025, effective January 1 of 1984. The proposed rules contain minor clarifications of the temporary rules, and these clarifications are identified and explained in the Statement of Need and Reasonableness available from the Commissioner upon request.

One free copy of the proposed rules may be obtained by contacting Carla Mitrovich at the above address or by calling (612) 296-2342.

STATE OF MINNESOTA

Steve Keefe

Steve Keefe
Commissioner, Department of
Labor and Industry

Dated: July 12, 1985.

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

AFFIDAVIT OF MAILING

STATE OF MINNESOTA)
) ss
COUNTY OF RAMSEY)

Carla R. Mitrovich, being first duly sworn, deposes and says:

That on the 31st day of July, 1985, at the City of St. Paul, County of Ramsey, State of Minnesota, she served the attached Notice of Intent to Adopt Rules Without a Public Hearing by depositing in the State of Minnesota Central Mail System for United States mailing at said City of St. Paul, a copy thereof, properly enveloped, with postage prepaid, on all persons and groups who have requested that their names be placed on the list maintained by the Minnesota Department of Labor and Industry, Workers' Compensation Division, for the purpose of receiving notice of the proposed adoption of rules by this Department.

Carla Mitrovich

Subscribed and sworn to before me this 5 day of July, 1985.

Rosemary L. LaRue

ROSEMARY L. LARUE
NOTARY PUBLIC-MINNESOTA
RAMSEY COUNTY
MY COMMISSION EXPIRES NOVEMBER 11, 1990

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

CERTIFICATE

STATE OF MINNESOTA)
) ss
COUNTY OF RAMSEY)

I hereby certify that the list of interested persons and groups who have requested, pursuant to Minn. Stat. § 14.22 (1984), that their names be placed on the list maintained by the Minnesota Department of Labor and Industry for the purpose of receiving notice of the proposed adoption of rules by this Department is accurate and complete as of 8:00 a.m. this 31st day of July, 1985.

Carla R. Mitrovich

CARLA R. MITROVICH

9500.1221 [Emergency] SPECIAL VOUCHER OR VENDOR PAYMENT PROVISIONS.

The local agency may provide general assistance, emergency general assistance, or work readiness payments in the form of vouchers or vendor payments if the applicant, recipient, or registrant does not have a permanent address. The local agency may provide separate vouchers or vendor payments for food, shelter, and other needs and may divide the monthly assistance standard into daily or weekly payments, whether in cash or by voucher or vendor payment, until the applicant, recipient, or registrant has secured a permanent address. If the local agency elects to use these provisions, the local agency shall either provide for the person's needs through placement in a negotiated rate facility, or provide for all of the person's food, shelter, or other daily needs, regardless of the standard of assistance.

Department of Labor and Industry

Proposed Rules Governing Workers' Compensation Permanent Partial Disability Schedules

Notice of Intent to Adopt Rules without a Public Hearing

Notice is hereby given that the Department of Labor and Industry, Workers' Compensation Division, proposes to adopt the above-captioned rules without a public hearing. The Department has determined that the proposed adoption of these rules will be noncontroversial in nature and has elected to follow the procedures set forth in Minn. Stat. §§ 14.21-14.28 (1984).

Persons or groups interested in these rules shall have 30 days to submit comments on the proposed rules. Comments in support of or in opposition to the proposed rules are encouraged. Each comment should identify the portion of the proposed rules addressed, the reason for the comment, and any change proposed. The proposed rules may be modified if the modifications are supported by the data and views submitted to the Department and do not result in a substantial change in the proposed language.

A public hearing will be held if 25 or more persons submit written requests for a public hearing on the proposed rules within the 30-day comment period. If a public hearing is required, the Department will proceed according to the provisions of Minn. Stat. §§ 14.131-14.20 (1984). Any person requesting a public hearing should state his or her name and address, and is encouraged to identify the portion of the proposed rules addressed, the reason for the request, and any change proposed.

Comments or written requests for a public hearing should be submitted to:

Steve Keefe
Commissioner, Department of Labor and Industry
5th Floor, Space Center Bldg.
444 Lafayette Road
St. Paul, Minnesota 55101
(612) 296-2342

Authority for the adoption of these rules is contained in Minn. Stat. § 176.105, (1984). A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rules, identifies the data and information relied upon to support the proposed rules and assesses the impact of the proposed rules on small business and on local public bodies has been prepared and is available from the Commissioner upon request at the above address.

The proposed rules will have no qualitative or quantitative impact on non-exempt small businesses. The rules affect disability payments made by insurers and self-insurers, both of which are large businesses. They also affect the methods by which health care providers determine permanent partial disability.

Upon adoption of the final rules without a public hearing, all jurisdictional documents, the Statement of Need and Reasonableness, all written comments and requests for hearing received, and the final rules as adopted, will be delivered to the Attorney General. The rules will then be reviewed by the Attorney General for legality and form as it relates to legality, including the issues of substantial change, the agency's authority to adopt the rules and the existence of a rational basis for the need for and reasonableness of the proposed rules. Persons who wish to be notified of the submission of this material to the Attorney General, including modifications to the rules as originally proposed, or who wish to receive a free copy of the final rules as adopted, should submit a written request to the Commissioner at the above address.

KEY: PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." ADOPTED RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

The text of the proposed rules follows this notice in the *State Register*. These proposed rules essentially make permanent the current permanent partial disability rules, 8 MCAR § 1.9001-1.9025, effective January 1 of 1984. The proposed rules contain minor clarifications of the temporary rules, and these clarifications are identified and explained in the Statement of Need and Reasonableness available from the Commissioner upon request.

One free copy of the proposed rules may be obtained by contacting Carla Mitrovich at the above address or by calling (612) 296-2342.

July 12, 1985

Steve Keefe
Commissioner, Department of
Labor and Industry

Rules as Proposed (all new material)

5223.0010 WORKERS' COMPENSATION PERMANENT PARTIAL DISABILITY SCHEDULES.

Subpart 1. Purpose of schedules. Minnesota Statutes, section 176.105, subdivision 4, requires the commissioner of labor and industry to adopt rules assigning specific percentages of disability of the whole body for specific permanent partial disabilities. This chapter assigns percentages of disability of the whole body for permanent partial disabilities.

Subp. 2. Interpretation of schedules. Only the categories in the schedules in this chapter may be used when rating the extent of a disability. Where a category represents the disabling condition, the disability determination shall not be based on the cumulation of lesser included categories. If more than one category may apply to a condition, the category most closely representing the condition shall be selected. Where more than one category is necessary to represent the disabling condition, categories shall be selected to avoid double compensation for any part of a condition. The percentages of disability to the whole body as set forth in two or more categories shall not be averaged, prorated, or otherwise deviated from, unless specifically provided in the schedule. Unless provided otherwise, where an impairment must be rated under more than one category, the ratings must be combined using the A + B (1-A) formula as provided in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c). With respect to the musculo-skeletal schedule, the percent of whole body disability for motor or sensory loss of a member shall not exceed the percent of whole body disability for amputation of that member.

Subp. 3. Disabilities not part of schedules. A category not found within this chapter shall not be used to determine permanent partial disability.

Subp. 4. Rules of construction. The technical terms in this chapter are defined in either part 5223.0020, or by the documents incorporated by reference in this chapter. Documents are incorporated by reference only to the extent necessary for definition or to the extent specifically referenced in a schedule. The documents incorporated by reference are not subject to frequent change, although new editions occasionally may be published. These documents are common medical references and are conveniently available to the public as noted in items A to K. These documents are as follows:

A. Guides to the Evaluation of Permanent Impairment, published by the American Medical Association, Committee on Rating of Mental and Physical Impairment, second edition 1984. This document is also known as the A.M.A. Guides. Available at the University of Minnesota, Biomedical Library.

B. Snellen Charts, published by American Medical Association Committee for Eye Injuries and designated Industrial Vision Test Charts. These charts are also known and referred to as A.M.A. charts. Available at the Minnesota State Law Library.

C. American Medical Association Rating Reading Card of 1932, published by the American Medical Association Committee for Eye Injuries. This document is also known as the A.M.A. Card. Available at the Minnesota State Law Library.

D. S3.1-1977 Criteria for Permissible Ambient Noise during Audiometric Testing and S3.6-1969 (R1973) Specification for Audiometers, published by the American National Standard Institutes, Inc. in 1973 and 1977, respectively. Available at the Minnesota State Law Library.

E. Metropolitan Life Insurance Company Height and Weight Tables, published by the Metropolitan Life Insurance Company, 1983. Available at the Minnesota State Law Library.

F. The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, published by Sister Kenny Institute, 1973. Available at the Minnesota State Law Library.

G. Dorland's Illustrated Medical Dictionary, 26th edition, published by W.B. Saunders Company, 1981. This document is also known as Dorland's. Available at the University of Minnesota Biomedical Library.

H. D.S.M. III, Diagnostic and Statistical Manual of Mental Disorders, published by American Psychiatric Association, 1980. This document is also known as D.S.M. III. Available at the University of Minnesota Biomedical Library.

I. Fractures, Charles A. Rockwood and David Green, published by Lippencott, 1975. Available at the University of Minnesota Biomedical Library.

J. Textbook on Anatomy, William Henry Hollinshead, published by Harper & Row, 1985. Available at the University of Minnesota Biomedical library.

K. "The Estimation of Areas of Burns," in Surgery, Gynecology and Obstetrics, by Lund and Browder, pages 352-358, volume 79, published by Surgical Publishing Company of Chicago, 1944. This document is referred to as Lund and Browder. Available at the Minnesota State Law Library.

Subp. 5. Severability. If any provision of this chapter is held to conflict with a governing statute, applicable provisions of the Minnesota Administrative Procedure Act, or other relevant law; to exceed the statutory authority conferred; to lack a reasonable relationship to statutory purposes or to be unconstitutional, arbitrary, or unreasonable; or to be invalid for any other reason; the validity and enforceability of the remaining provisions of the rule shall in no manner be affected.

5223.0020 DEFINITIONS.

Subpart 1. Scope. For the purpose of this chapter the terms defined in this part have the meanings given them unless the context clearly indicates otherwise. Terms not defined in this part are defined in Dorland's or other documents incorporated by reference. If the definition in a document incorporated by reference conflicts with or differs from the definition in this chapter, the specific definitions in this chapter shall govern.

Subp. 2. Acromio-clavicular grade 1. "Acromio-clavicular grade 1" means an undisplaced acromio-clavicular joint.

Subp. 3. Acromio-clavicular grade 2. "Acromio-clavicular grade 2" means a 50 percent displacement of the clavicle in relationship to the acromion at the acromio-clavicular joint.

Subp. 4. Acromio-clavicular grade 3. "Acromio-clavicular grade 3" means a completely disrupted acromio-clavicular joint.

Subp. 5. Activities of daily living. "Activities of daily living" means the ability to perform self cares, to perform housework and related tasks, to ride in or operate a motor vehicle, and to perform vocational tasks not requiring physical labor.

Subp. 6. Ankylosis. "Ankylosis" means the stiffening or fixation of a joint.

Subp. 7. ANSI. "ANSI" means the American National Standards Institute.

Subp. 8. Banding. "Banding" means a thick, rope-like cord of hypertrophic scarring resulting from burns.

Subp. 9. Category. "Category" means a permanent partial disability as described in this chapter and the corresponding percent of disability to the whole body for that permanent partial disability.

Subp. 10. Chronic. "Chronic" means the repeated or continuous occurrence of a specific condition or symptom.

Subp. 11. Demonstrable degenerative changes. "Demonstrable degenerative changes" means radiographic findings demonstrating the presence of degeneration of intervertebral disc or facet joints. Examples of demonstrable degenerative changes are disc space narrowing, small osteophytes, and facet joint hypertrophic changes.

Subp. 12. Desirable level of weight. "Desirable level of weight" means preferred weights in the tables created by the Metropolitan Life Insurance Company.

Subp. 13. Disarticulation. "Disarticulation" means an amputation occurring through a joint.

Subp. 14. Distance vision. "Distance vision" means the ability to distinguish letters at a distance of 20 feet according to the Snellen and A.M.A. Charts.

Subp. 15. Family member. "Family member" means cohabitants and is not limited to those related by blood or marriage. In cases of institutionalization or similar nonhome environment, family member may include staff members who care for the individual on a regular basis.

Subp 16. Fore-quarter. "Fore-quarter" means the amputation of the upper extremity involving the scapula, clavicle, and muscles that attach to the chest.

Subp. 17. Fusion. "Fusion" means the surgical uniting of one vertebral segment to an adjoining vertebral segment.

KEY: PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." ADOPTED RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

Subp. 18. Gastrostomy. "Gastrostomy" means a surgical creation of a gastric fistula through the abdominal wall for the purpose of introducing food into the stomach.

Subp. 19. Glossopharyngeal. "Glossopharyngeal" means the ninth cranial nerve with sensory fibers to the tongue and pharynx. It affects taste and swallowing.

Subp. 20. Gross motor weakness. "Gross motor weakness" means total or partial loss as described in part 5223.0160.

Subp. 21. Hypertrophic scar. "Hypertrophic scar" means an elevated irregularly shaped mass of scar tissue.

Subp. 22. Hypoglossal. "Hypoglossal" means the motor nerve to the tongue. It is the 12th cranial nerve and carries impulses from the brain to the tongue, including movement of muscles and secretion of glands and motor movement.

Subp. 23. Kenny scale. "Kenny scale" means the Kenny self-care evaluation system in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence of Activities of Daily Living.

Subp. 24. Laminectomy. "Laminectomy" means the removal of part or all of the lamina of one vertebral segment, usually with associated disc excision.

Subp. 25. Lethargy. "Lethargy" means, in relation to a nervous system injury to the brain, that an individual is drowsy, but can be aroused.

Subp. 26. Moderate referred shoulder and arm pain. "Moderate referred shoulder and arm pain" means pain of an intensity necessitating decreased activity in order to avoid the pain. This pain is demonstrated in a dermatomal distribution into the shoulder and upper extremity.

Subp. 27. Moderate partial dislocation. "Moderate partial dislocation" means a loss of normal vertebral alignment of up to 50 percent of the vertebral body on the adjacent vertebral body associated with vertebral fractures.

Subp. 28. Near vision. "Near vision" means clearness of vision at the distance of 14 inches.

Subp. 29. Nonpreferred extremity. "Nonpreferred extremity" means the arm or leg not used dominantly, as for example, the left hand of a right-handed writer.

Subp. 30. Objective clinical findings. "Objective clinical findings" as used in part 5223.0070 means examination results which are reproducible and consistent. Examples of objective clinical findings are involuntary muscle spasms, consistent postural abnormalities, and changes in deep tendon reflexes.

Subp. 31. Postural abnormality. "Postural abnormality" means a deviation from normal posture, as found on anterior/posterior or lateral X-rays, that involves the spine and pelvis or segments of the spine or pelvis, such as kyphosis, lordosis, or scoliosis.

Subp. 32. Preferred extremity. "Preferred extremity" means the dominant leg or arm, as for example, the right arm of a right-handed person.

Subp. 33. Presbycusis. "Presbycusis" means a decline in hearing acuity that occurs with the aging process.

Subp. 34. Pseudophakia. "Pseudophakia" means that the crystalline lens of the eye has been replaced with a surgically implanted lens.

Subp. 35. Self cares. "Self cares" means bed activities, transfers, locomotion, dressing, personal hygiene, bowel and bladder, and feeding as described in The Revised Kenny Self-Care Evaluation: A Numerical Measure of Independence in Activities of Daily Living, pages 10-24.

Subp. 36. Spinal stenosis. "Spinal stenosis" means the narrowing of the spinal canal.

Subp. 37. Spondylolisthesis. "Spondylolisthesis" means the forward movement of one vertebral body of one of the lower lumbar vertebrae on the vertebrae below it or upon the sacrum.

Subp. 38. Spondylolisthesis grade 1. "Spondylolisthesis grade 1" means forward movement from zero to 25 percent of the vertebral body.

Subp. 39. Spondylolisthesis grade 2. "Spondylolisthesis grade 2" means forward movement from 25 to 50 percent of the vertebral body.

Subp. 40. Spondylolisthesis grade 3. "Spondylolisthesis grade 3" means movement from 50 to 75 percent of the vertebral body.

Subp. 41. Spondylolisthesis grade 4. "Spondylolisthesis grade 4" means forward movement from 75 to 100 percent of the vertebral body.

Subp. 42. Stupor. "Stupor" means, in relation to a nervous system injury to the brain, that a strong stimulus or pain is needed to arouse consciousness or response.

Subp. 43. Tinnitus. "Tinnitus" means a subjective sense of noises in the head or ringing in the ear for which there is no observable external cause.

Subp. 44. Trigeminal. "Trigeminal" means the mixed nerve with sensory fibers to the face, cornea, anterior scalp, nasal and oral cavities, tongue and supertentorial dura matter. It also has motor fibers to the muscles of mastication. It is the fifth cranial nerve.

Subp. 45. Vertigo. "Vertigo" means a sensation of moving around in space or having objects move about the person. It is the result of a disturbance of the equilibratory apparatus.

Subp. 46. Vestibular. "Vestibular" means the main division of the auditory nerve. It is the eighth cranial nerve and deals with equilibrium.

Subp. 47. Wrinkling. "Wrinkling" means small ridges on the skin formed by shrinking or contraction as a result of burns.

Subp. 48. 14/14. "14/14" is a term used in the measurement of near vision. It is the clearness of vision at a distance of 14 inches. The numerator is the test distance in inches. The denominator is the distance at which the smallest letter on the A.M.A. card can be seen.

Subp. 49. 20/20 Snellen or A.M.A. Chart. "20/20 Snellen or A.M.A. Chart" refers to a chart imprinted with block letters or numbers in gradually decreasing sizes, identified according to distances at which they are ordinarily visible. It is used in testing visual acuity. The numerator is the test distance in feet. The denominator is the distance at which the smallest letter discriminated by a patient would subtend five minutes of arc.

5223.0030 EYE SCHEDULE.

Subpart 1. Complete loss of vision. For complete loss of vision in both eyes, disability of the whole body is 85 percent. For complete loss of vision in one eye, disability of the whole body is 24 percent. In determining the degree of vision impairment and of whole body disability, subparts 2 to 6 shall be used.

Subp. 2. Examination. Disability shall not be determined until all medically acceptable attempts to correct the defect have been made. Prior to the final examination on which disability is to be determined, at least six months shall elapse after all visible inflammation has disappeared. In cases of disturbance of extrinsic ocular muscles, optic nerve atrophy, injury of the retina, sympathetic ophthalmia, and traumatic cataract, at least 12 months shall elapse before the final examination is made. Testing shall be conducted with corrective lenses applied, unless indicated otherwise in this part.

Subp. 3. Maximum and minimum limits of primary coordinate factors of vision. The primary coordinate factors of vision are central visual acuity, visual field efficiency, and ocular motility.

A. The maximum limit for each coordinate function is established in subitems (1) to (3):

(1) The maximum limit of central visual acuity is the ability to recognize letters or characters which subtend an angle of five minutes, each unit part of which subtends a one-minute angle at the distance viewed. A 20/20 Snellen or A.M.A. chart is 100 percent (maximum) central visual acuity for distance vision. 14/14 A.M.A. card is 100 percent (maximum) central visual acuity for near vision.

(2) The maximum visual field is defined as 500 degrees. It is the sum of the degrees in the eight principal meridians from the point of fixation to the outermost limits of visual perception and defines the area in which a three millimeter white target is visible at 33 centimeters. One hundred percent visual field efficiency is that visual field which extends from the point of fixation outward 85 degrees, down 65 degrees, down and in 50 degrees, inward 60 degrees, in and up 55 degrees, upward 45 degrees, and up and out 55 degrees.

(3) Maximum ocular motility is present if there is absence of diplopia in all parts of the field of binocular fixation, and if normal binocular motor coordination is present.

B. The minimum limit for each coordinate function is established in subitems (1) to (3):

(1) The minimum limit of central visual acuity is:

(a) for distance vision, 20/800 Snellen or A.M.A. chart; and

(b) for near vision, 14/560 A.M.A. card.

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(2) The minimum limit for field vision is established as a concentric central contraction of the visual field to five degrees. Five degrees of contraction of the visual field reduces the visual efficiency of the eye to zero.

(3) The minimum limit for ocular motility is established by the presence of diplopia in all parts of the field of binocular fixation or by absence of binocular motor coordination. The minimum limit is 50 percent ocular motility efficiency.

Subp. 4. Measurement of coordinate factors of vision and computation of partial loss.

A. Central visual acuity shall be measured both for distance vision and for near vision, each eye being measured separately, both with and without correction. A Snellen or A.M.A. chart shall be used for distance vision and an A.M.A. card shall be used for near vision. Illumination shall be at least five footcandles.

(1) Table 1 shows the percentage of visual efficency corresponding to the notations for distance vision and for near vision. For test readings between those listed on the chart, round up from the midpoint to the nearest reading, and round down from below the midpoint.

Where distance vision is less than 20/200 and the A.M.A. chart is used, readings are at ten feet. The test reading is translated to the corresponding distance reading in Table 1 by multiplying both the numerator and the denominator of the test reading by two.

TABLE 1

Central Visual Acuity

A.M.A. Chart or Snellen Reading for Distance	A.M.A. Card Reading for Near	Percentage of Central Visual Acuity Efficiency
20/20	14/14	100.00
20/25	14/17.5	95.7
20/25.7	.....	95.0
20/30	14/21	91.5
20/32.1	.....	90.0
20/35	14/24.5	87.5
20/38.4	.....	85.0
20/40	14/28	83.6
20/44.9	14/31.5	80.0
20/50	14/35	76.5
20/52.1	....	75.0
20/60	14/42	69.9
20/60.2	.....	70.0
20/68.2	.....	65.0
20/70	14/49	64.0
20/77.5	.....	60.0
20/80	14/56	58.5
20/86.8	.....	55.0
20/90	14/63	53.4
20/97.5	.....	50.0
20/100	14/70	48.9
20/109.4	.....	45.0
20/120	14/84	40.9
.....	14/89	38.4
20/122.5	.....	40.0
20/137.3	.....	35.0
20/140	14/98	34.2
20/155	.....	30.0
20/160	14/112	28.6
20/175	.....	25.0
20/180	14/126	23.9
20/200	14/140	20.0
20/220	14/154	16.7

A.M.A. Chart or Snellen Reading for Distance	A.M.A. Card Reading for Near	Percentage of Central Visual Acuity Efficiency
20/240	14/168	14.0
....	14/178	12.3
20/260	14/182	11.7
20/280	14/196	9.7
20/300	14/210	8.2
20/320	14/224	6.8
20/340	14/238	5.7
20/360	14/252	4.8
20/380	14/266	4.0
20/400	14/280	3.3
20/450	14/315	2.1
20/500	14/350	1.4
20/600	14/420	0.6
20/700	14/490	0.3
20/800	14/560	0.1

(2) The percentage of central visual acuity efficiency of the eye for distance vision is that percentage in Table 1 which corresponds to the test reading for distance vision for that eye.

(3) The percentage of central visual acuity efficiency of the eye for near vision is that percentage in Table 1 which corresponds to the test reading for near vision for that eye.

(4) The percentage of central visual acuity efficiency of the eye in question is determined as follows:

(a) Multiply by two the value determined for corrected near vision in subitem (3).

(b) Add the product obtained in unit (a) to the value determined for corrected distance vision in subitem (2).

(c) Divide the sum obtained in unit (b) by three.

The following is an example of this calculation. If the central visual acuity efficiency for distance is 70 percent, and that for near is 25 percent, the percentage of central visual acuity efficiency for the eye is:

$$\frac{70\% + (2 \times 25)}{3} = 40\% \text{ central visual acuity efficiency}$$

(5) For traumatic aphakia, the corrected central visual acuity efficiency of the eye is 50 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

(6) For traumatic pseudophakia, the corrected central visual acuity efficiency of the eye is 80 percent of the central visual acuity efficiency determined in subitem (4). This subitem shall not apply if an adjustment for glasses or contact lenses pursuant to subpart 5, item B, subitem (2) or (3) results in a lower visual efficiency than would be given by application of this subitem.

B. For each eye, the extent of the field of vision shall be determined by perimetric test methods. A three millimeter white disk which subtends a 0.5-degree angle under illumination of not less than seven footcandles shall be used. For aphakia, a six millimeter white disk shall be used. The result shall be plotted on the visual field chart as illustrated in the A.M.A. Guides, page 144.

(1) The amount of radial contraction in the eight principal meridians shall be determined. The sum of the degrees of field vision remaining on these meridians, divided by 500, is the visual field efficiency of one eye, expressed as a percentage. If the eye has a concentric central contraction of the field to a diameter of five degrees, the visual efficiency is zero.

(2) When the impairment of field is irregular and not fairly disclosed by the eight radii, the determination shall be based on a number of radii greater than eight and the divisor in subitem (1) shall be changed accordingly.

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(3) Where there is a loss of a quadrant or a half-field, the degrees of field vision remaining in each meridian are added to one-half the sum of the two boundary meridians.

C. Ocular motility shall be measured in all parts of the motor field with any useful correction applied.

(1) All directions of gaze shall be tested with use of a test light and without the addition of colored lenses or correcting prisms. The extent of diplopia is determined on the perimeter at 330 millimeters or on a tangent screen at a distance of one meter from the eye.

(2) Plot the test results on a motility chart as illustrated in the A.M.A. Guides, page 147.

(3) Determine the percentage loss of ocular motility from the motility chart. This percentage is assigned to the injured eye or, if both eyes are injured, to the eye with the greatest impairment of central visual acuity and field vision. The eye with the greatest impairment means the eye for which the product of central visual acuity efficiency and visual field efficiency is the least. For the purpose of calculation, a value of zero percent is deemed to be one percent. For the other eye, the percentage loss of ocular motility is zero.

(4) The percentage loss of ocular motility is subtracted from 100 percent to obtain the ocular motility efficiency. The minimum ocular motility efficiency of one eye is 50 percent.

Subp. 5. Visual efficiency. The visual efficiency of one eye is the product of the efficiency values of central visual acuity, of visual field, and of ocular motility. For the purpose of this calculation, these values shall be expressed as decimals and not as percentages; a value of zero percent is deemed to be one percent.

A. For example, if central visual acuity efficiency is 50 percent, visual field efficiency is 80 percent, and ocular motility efficiency is 100 percent, the visual efficiency of the eye is .50 times .80 times 1.00, equals 40 percent. If ocular motility efficiency is changed to 50 percent, the visual efficiency is .50 times .80 times .50, equals 20 percent.

B. Visual efficiency shall be adjusted as set in this item. Visual efficiency may not be less than zero percent. No adjustment for glasses or contacts shall be made in cases of aphakia or pseudophakia where the central visual efficiency was adjusted pursuant to subpart 4, item A, subitem (5) or (6).

(1) Visual efficiency shall be decreased by subtracting two percent for any of the following conditions which are present due to the injury: loss of color vision; loss of adaptation to light and dark; metamorphosis; entropion or ectropion uncorrected by surgery; lagophthalmos; epiphora; and muscle disturbances such as ocular ticks not included under diplopia.

(2) If glasses are required as a result of the injury, or if as a result of the injury the refractive error increases by at least one diopeter of sphere or of cylinder or of both, subtract five percent from the visual efficiency. Where the glasses contain prisms, subtract six percent.

(3) If a noncosmetic contact lens is required in one or both eyes as a result of the injury, subtract seven percent from the visual efficiency.

Subp. 6. Procedure for determining whole body disability due to vision loss. For each eye, subtract the percentage of visual efficiency determined in subpart 5 from 100 percent. The difference is the percentage impairment of each eye. The better eye has the lower percentage impairment. The poorer eye has the greater percentage impairment.

A. Multiply the percentage impairment of the better eye by three.

B. Add the percentage impairment of the poorer eye to the product obtained in item A.

C. Divide the sum obtained in item B by four.

D. The quotient obtained in item C is the percentage impairment of the visual system. Fractions shall be rounded to the nearest whole number percentage as provided in subpart 4, item A, subitem (1).

E. The percentage impairment of the visual system is translated to the percentage disability of the whole body by Table 2.

Table 2

Eye Schedule

Impairment of Visual System, %	Disability of Whole Man, %	Impairment of Visual System, %	Disability of Whole Man, %
0	0	45	42
1	1	46	43
2	2	47	44
3	3	48	45
4	4	49	46

Impairment of Visual System, %	Disability of Whole Man, %	Impairment of Visual System, %	Disability of Whole Man, %
5	5	50	47
6	6	51	48
7	7	52	49
8	8	53	50
9	8	54	51
10	9	55	52
11	10	56	53
12	11	57	54
13	12	58	55
14	13	59	56
15	14	60	57
16	15	61	58
17	16	62	59
18	17	63	59
19	18	64	60
20	19	65	61
21	20	66	62
22	21	67	63
23	22	68	64
24	23	69	65
25	24	70	66
26	25	71	67
27	25	72	68
28	26	73	69
29	27	74	70
30	28	75	71
31	29	76	72
32	30	77	73
33	31	78	74
34	32	79	75
35	33	80	76
36	34	81	76
37	35	82	77
38	36	83	78
39	37	84	79
40	38	85	80
41	39	86	81
42	40	87	82
43	41	88	83
44	42	89	84
		90-100	85

5223.0040 EAR SCHEDULE.

Subpart 1. General. For hearing loss, the maximum disability of the whole body is 35 percent. The procedures in subparts 2 to 7 shall be used to determine the extent of binaural hearing loss and of whole body disability.

Subp. 2. Medical diagnosis. Otological evaluation shall be the method for determining the degree of permanent partial hearing loss. The medical diagnosis shall include the following:

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A. A complete history of occupational, military, and recreational noise exposure. This medical history shall include documentation of any previous hearing loss, if that information is available.

B. A complete physical examination of the ear.

C. An audiological evaluation which shall include pure tone air conduction and bone conduction testing.

Subp. 3. Standards for audiometric calibration and test environment. To ensure accurate measurement of hearing loss, the following standards shall be observed in conducting the tests required in subpart 2:

A. The audiometer used to measure hearing loss shall be calibrated to meet the specifications of ANSI S3.6-1969 (R1973), Specifications for Audiometers. The following are also required:

(1) biological or electroacoustical calibration checks of the audiometer shall be performed monthly;

(2) electroacoustical calibration shall be performed annually to certify the audiometer to the ANSI standard in this item; and

(3) the calibration records shall be preserved and shall be provided upon request.

B. Audiometric test rooms or booths shall meet the specifications of ANSI S3.1-1977, Criteria for Permissible Ambient Noise during Audiometric Testing.

Subp. 4. Waiting period for final evaluation of hearing loss. A waiting period of at least three months shall elapse between the date of the occurrence of the noise injury and the final evaluation of the permanent partial hearing loss.

Subp. 5. Procedure for determining disability of whole body due to hearing loss. The binaural hearing loss is determined as follows:

A. The calculation for the percent of binaural hearing loss consists of the following steps:

(1) For each ear, test the hearing threshold levels at the four frequences of 500, 1,000, 2,000, and 3,000 Hertz.

(2) For each ear, determine the average four-frequency hearing level. The average four-frequency hearing level is one-fourth of the sum of the threshold levels at each of the four tested frequencies. The average four-frequency hearing level is expressed in decibels.

(3) For each ear, subtract 25 decibels from the average four-frequency hearing level for that ear. The remainder, expressed in decibels, is the adjusted average four-frequency hearing level.

(4) For each ear, multiply the adjusted average four-frequency hearing level by 1.5 percent. The product is the monaural hearing loss, expressed as a percentage. A product less than zero percent is deemed to be zero. A product greater than 100 percent is deemed to be 100 percent.

(5) Considering both ears, compare the monaural hearing losses as determined in subitem (4). The ear with the smaller monaural hearing loss is the better ear. The ear with the larger monaural hearing loss is the poorer ear.

(6) Multiply the monaural hearing loss of the better ear by five, add this product to the monaural hearing loss of the poorer ear, and divide the sum by six. The quotient is the binaural hearing loss, expressed as a percentage. The formula is:

$$\frac{(\text{monaural hearing loss of better ear} \times 5) + (\text{monaural hearing loss of poorer ear})}{6} = \text{percent binaural hearing loss}$$

B. The calculation of the percent of binaural hearing loss is illustrated by the following examples.

Example 1

	500 Hertz	1,000 Hertz	2,000 Hertz	3,000 Hertz
Right ear	15	25	45	55
Left ear	30	45	60	85

a. Calculation of the average four-frequency hearing level:

$$\text{Right ear} = \frac{15 + 25 + 45 + 55}{4} = \frac{140}{4} = 35 \text{ decibels}$$

$$\text{Left ear} = \frac{30 + 45 + 60 + 85}{4} = \frac{220}{4} = 55 \text{ decibels}$$

b. Calculation of adjusted average four-frequency hearing level:

Right ear = 35 decibels − 25 decibels = 10 decibels;
Left ear = 55 decibels − 25 decibels = 30 decibels;

c. Calculation of monaural hearing loss:

Right ear = 10 x 1.5% = 15%
Left ear = 30 x 1.5% = 45%

d. Calculation of binaural hearing loss:

$\frac{(15\% \times 5) + 45\%}{6}$ = 20 percent binaural hearing loss

Example 2

	500 Hertz	1,000 Hertz	2,000 Hertz	3,000 Hertz
Right ear	20	25	30	35
Left ear	30	45	60	85

a. Calculation of average four-frequency hearing level.

$$\text{Right ear} = \frac{20 + 25 + 30 + 35}{4} = 25 \text{ decibels}$$

$$\text{Left ear} = \frac{30 + 45 + 60 + 85}{4} = 55 \text{ decibels}$$

b. Calculation of adjusted average four-frequency hearing level.

Right ear = 25 decibels − 25 decibels = 0 decibels
Left ear = 55 decibels − 25 decibels = 30 decibels

c. Calculation of monaural hearing loss:

Right ear = 0 x 1.5 percent = 0
Left ear = 30 x 1.5 percent = 45 percent

d. Calculation of binaural hearing loss:

$\frac{(0\% \times 5) + 45\%}{6}$ = 7.5 percent binaural hearing loss

C. The binaural hearing loss is translated to a percentage of disability of the whole body by the ear schedule set forth below:

EAR SCHEDULE

Binaural Hearing Loss, Percent	Disability of Whole Body Percent
0 - 1.7	0
1.8 - 4.2	1
4.3 - 7.4	2
7.5 - 9.9	3
10.0 - 13.1	4
13.2 - 15.9	5
16.0 - 18.8	6
18.9 - 21.4	7
21.5 - 24.5	8

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Binaural Hearing Loss, Percent	Disability of Whole Body Percent
24.6 - 27.1	9
27.2 - 30.0	10
30.1 - 32.8	11
32.9 - 35.9	12
36.0 - 38.5	13
38.6 - 41.7	14
41.8 - 44.2	15
44.3 - 47.4	16
47.5 - 49.9	17
50.0 - 53.1	18
53.2 - 55.7	19
55.8 - 58.8	20
58.9 - 61.4	21
61.5 - 64.5	22
64.6 - 67.1	23
67.2 - 70.0	24
70.1 - 72.8	25
72.9 - 75.9	26
76.0 - 78.5	27
78.6 - 81.7	28
81.8 - 84.2	29
84.3 - 87.4	30
87.5 - 89.9	31
90.0 - 93.1	32
93.2 - 95.7	33
95.8 - 98.8	34
98.9 -100.0	35

Subp. 6. Presbycusis. The calculation of the binaural hearing loss shall not include an additional adjustment for presbycusis.

Subp. 7. Tinnitus. No additional percentage of permanent partial disability for hearing loss shall be allowed for tinnitus.

5223.0050 SKULL DEFECTS.

Subpart 1. Skull depressions. For skull defects the percent of disability of the whole body is provided by the following schedule:

	Unfilled defect Percent	Filled defect Percent
0 - 1-1/2 square inches	0	0
1-1/2 - 2-1/2 square inches	5	0
2-1/2 - 4 square inches	10	2
4 - 6-1/2 square inches	15	3
6-1/2 or more square inches	20	5

Subp. 2. Skull fractures. Skull fractures are:

A. Basilar skull fracture with persistent spinal fluid leak, 20 percent.

B. Basilar skull fracture without cerebrospinal fluid leak, 0 percent.

5223.0060 CENTRAL NERVOUS SYSTEM.

Subpart 1. General. For permanent partial disability of the central nervous system the percentage of disability of the whole body is as provided in subparts 2 to 9.

Subp. 2. Trigeminal nerve. Permanent partial disability of the trigeminal nerve is a disability of the whole body as follows:

A. partial unilateral sensory loss, 3 percent;

B. complete unilateral sensory loss, 5 percent;

C. partial bilateral sensory loss, 10 percent;

D. complete bilateral sensory loss, 25 percent;

E. intractable trigeminal neuralgia, 20 percent;

F. atypical facial pain, 5 percent;

G. partial unilateral motor loss, 2 percent;

H. complete unilateral motor loss, 5 percent;

I. partial bilateral motor loss, 10 percent; or

J. complete bilateral motor loss, 30 percent.

Subp. 3. Facial nerve. Permanent partial disability of the facial nerve is a disability of the whole body as follows:

A. total loss of taste, 3 percent;

B. partial unilateral motor loss, 25 to 75 percent of function lost, 3 percent;

C. unilateral motor loss, more than 75 percent of function lost, 10 percent;

D. partial bilateral motor loss, 25 to 75 percent of function lost, 10 percent; or

E. bilateral motor loss, more than 75 percent of function lost, 20 percent.

Subp. 4. Vestibular loss with vertigo or disequilibrium. Vestibular loss with vertigo or disequilibrium is a disability of the whole body as follows:

A. a score of 24 to 28 on the Kenny scale, and restricted in activities involving personal or public safety, such as operating a motor vehicle or riding a bicycle, 10 percent;

B. a score of 16 to 28 on the Kenny scale, and ambulation impaired due to equilibrium disturbance, 30 percent;

C. a score of 10 to 16 on the Kenny scale, 40 percent; or

D. a score of 0 to 10 on the Kenny scale, 70 percent.

Subp. 5. Glossopharyngeal, vagus and spinal accessory nerves. Permanent partial disability to glossopharyngeal, vagus and spinal accessory nerves is a disability of the whole body as follows:

A. Swallowing impairment caused by disability to any one or more of these nerves:

(1) diet restricted to semi-solids, 10 percent;

(2) diet restricted to liquids, 25 percent; or

(3) diet by tube feeding or gastrostomy, 50 percent.

B. Mechanical disturbances of articulation due to disability to any one or more of these nerves:

(1) 95 percent or more of words are understood by those who are not family members and others outside the immediate family, but speech is distorted, 5 percent;

(2) 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by those who are not family members, 10 percent;

(3) 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;

(4) more than 50 percent of words are understood by family members, 20 percent;

(5) less than 50 percent of words are understood by family members, 25 percent; or

(6) 10 percent or less of words are understood by family members, 30 percent.

Subp. 6. Hypoglossal nerve. Permanent partial disability of hypoglossal nerve is a disability of the whole body as follows:

A. Bilateral paralysis; swallowing impairment:

(1) diet restricted to semi-solids, 10 percent;

(2) diet restricted to liquids, 25 percent; and

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(3) diet by tube feeding or gastrostomy, 50 percent.

B. Mechanical disturbances of articulation:

(1) 95 percent or more of words are understood by family members and others outside the immediate family, but speech is distorted, 5 percent;

(2) 95 percent or more of words are understood by family members, but speech is distorted and not easily understood by nonfamily members, 10 percent;

(3) 75 percent or more of words are understood by family members, but speech is distorted, 15 percent;

(4) more than 50 percent of words are understood by family members, 20 percent;

(5) less than 50 percent of words are understood by family members, 25 percent; or

(6) 10 percent or less of words are understood by family members, 30 percent.

Subp. 7. Spinal cord. To rate under this subpart, determine the disability to the lower extremities, upper extremities, respiration, urinary bladder, anorectal, and sexual functions as follows. The percentage of whole body disability under this subpart is determined by combining the disabilities under items A to F in the manner described in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

A. A permanent partial disability in the use of lower extremities is a disability of the whole body as follows:

(1) can rise to a standing position and can walk, but has difficulty walking onto elevations, grades, steps, and distances, 15 percent;

(2) can stand but can walk only on a level surface, 30 percent;

(3) can stand but cannot walk, 45 percent; and

(4) can neither stand nor walk, 65 percent.

B. Permanent partial disability in the use of upper extremities is a disability of the whole body as follows:

	Whole Body Disability, Percentages		
	Preferred extremity	Nonpreferred extremity	Both
score of 24 to 28 on Kenny scale, but some difficulty with digital dexterity	10	5	15
score of 16 to 28 on Kenny scale, but no digital dexterity	20	10	30
score of 10 to 16 on Kenny scale	40	40	50
score of 0 to 10 on Kenny scale	70	70	85

C. Permanent partial disability of the respiratory function is a disability of the whole body as follows:

(1) difficulty only where extra exertion is required, such as running, climbing stairs, heavy lifting, or carrying loads, 10 percent;

(2) restricted to limited walking, confined to one's own home, 35 percent;

(3) restricted to bed, 75 percent; and

(4) has no spontaneous respiration, 95 percent.

D. Permanent partial disability of the bladder is a disability of the whole body as set forth below. Evaluative procedures to be followed are in part 5223.0220, subpart 2.

(1) impaired voluntary control evidenced by urgency or hesitancy, but continent without collecting devices, 10 percent;

(2) impaired voluntary control, incontinent requiring external collecting devices, 20 percent; or

(3) impaired voluntary control, incontinent requiring internal collecting or continence devices, 30 percent.

E. The permanent partial disability of the anorectal function is a disability of the whole body as follows:

(1) impaired voluntary control with urgency, 10 percent;

(2) impaired voluntary control without reflex regulation, 20 percent; or

(3) impaired voluntary control, incontinent without diversion, 30 percent.

F. Permanent partial disability of sexual function is a disability of the whole body as follows:

(1) Male: rate under part 5223.0220, subpart 6.

(2) Female: rate under part 5223.0220, subpart 9.

Subp. 8. Brain injury. Supporting objective evidence of structural injury, neurological deficit, or psychomotor findings is required to substantiate the permanent partial disability. Permanent partial disability of the brain is a disability of the whole body as follows:

A. Communications disturbances, expressive:

(1) mild disturbance of expressive language ability not significantly impairing ability to be understood, such as mild word-finding difficulties, mild degree of paraphasias, or mild dysarthria, 10 percent;

(2) severe impairment of expressive language ability, but still capable of functional communication with the use of additional methods such as gestures, facial expression, writing, word board, or alphabet board, 35 percent; or

(3) unable to produce any functional expressive language, 70 percent.

B. Communication disturbances, receptive:

(1) mild impairment of comprehension of aural speech, but comprehension functional with the addition of visual cues such as gestures, facial expressions, or written material, 40 percent;

(2) some ability to comprehend language is present, but significant impairment even with use of visual cues such as gestures, facial expressions, and written material, 60 percent; or

(3) no evidence of functional comprehension of language, 90 percent.

C. Complex integrated cerebral function disturbances must be determined by medical observation and organic dysfunctions supported by psychometric testing. Functional overlay or primary psychiatric disturbances shall not be rated under this part. The permanent partial disabilities are as follows:

(1) mild impairment of higher level cognitive function or memory, but able to live independently and function in the community as evidenced by independence in activities such as shopping and taking a bus, 20 percent;

(2) same as subitem (1), and also requires supporting devices and direction to carry out limited vocational tasks, 30 percent;

(3) moderate impairment of memory, judgment, or other higher level cognitive abilities, can live alone with some supervision such as for money management, some limitation in ability to function independently outside the home in activities such as shopping and traveling, 50 percent;

(4) moderately severe impairment of memory, judgment, or other higher cognitive abilities, unable to live alone and some supervision required at all times, but able to perform self cares independently, 70 percent; or

(5) severe impairment of memory, judgment, or other higher cognitive abilities such that constant supervision and assistance in self cares are required, 95 percent.

D. Emotional disturbances and personality changes must be substantiated by medical observation and by organic dysfunction supported by psychometric testing. Permanent partial disability is a disability of the whole body as follows:

(1) only present under stressful situation such as losing one's job, getting a divorce, or a death in the family, 10 percent;

(2) present at all times but not significantly impairing ability to relate to others, to live with others, or to perform self cares, 30 percent;

(3) present at all times in moderate to severe degree, minimal ability to live with others, some supervision required, 65 percent; or

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(4) severe degree of emotional disturbance which, because of danger to self and others, requires continuous supervision, 95 percent.

E. Psychotic disorders, as described in D.S.M. III, not caused by organic dysfunction and substantiated by medical observation:

(1) only present under stressful situation, such as losing one's job, getting divorced, a death in the family, 10 percent;

(2) present at all times but not significantly impairing ability to relate to others, live with others, or perform self cares, 30 percent;

(3) present at all times in moderate to severe degree significantly affecting ability to live with others, and requiring some supervision, 65 percent; or

(4) severe degree of emotional disturbance which, because of danger to self or others, requires continuous supervision, 95 percent.

F. Consciousness disturbances; permanent partial disability of the whole body is as follows:

(1) mild or intermittent decreased level of consciousness manifested by periodic mild confusion or lethargy, a score of 16 to 28 on the Kenny scale, 40 percent;

(2) moderate intermittent or continuous decreased level of consciousness manifested by a moderate level of confusion or lethargy, and a score of 10 to 16 on the Kenny scale, 70 percent;

(3) severe decreased level of consciousness manifested as stupor with inability to function independently, and a score of 0 to 10 on the Kenny scale, 95 percent; or

(4) comatose or persistent vegetative state, 99 percent.

G. Motor dysfunction, movement disorder, paralysis, spasticity, sensory loss, or neglect. Where these impairments are due to brain or brain stem injury, rate as provided in subpart 7, items A and B.

H. Other impairments; impairments of respiration, urinary bladder function, anorectal function, or sexual function due to brain or brain stem injury are rated as provided in subpart 7, items C to F.

I. Epilepsy; permanent partial disability due to epilepsy is a disability of the whole body as follows:

(1) well controlled, on medication for one year or more, able to enter work force but with restrictions preventing operation of motor vehicles or dangerous machinery and climbing above six feet in height, 10 percent;

(2) seizures occurring at least once a year, but not severely limiting ability to live independently, 20 percent;

(3) seizures occurring at least six times per year, some supervision required, 40 percent;

(4) seizures poorly controlled with at least 15 seizures per year, supervision required, protective care required with activities restricted, 75 percent; or

(5) frequency of seizures requires continuous supervision and protective care, activities restricted, unable to perform self cares, 95 percent.

J. Headaches; permanent partial disability due to vascular headaches with nausea or vomiting is a five percent disability of the whole body.

K. Total loss of taste, 3 percent.

L. Traumatic head injury, complete and total loss of smell, supported by objective examination, 3 percent.

5223.0070 MUSCULO-SKELETAL SCHEDULE; BACK.

Subpart 1. Lumbar spine. The spine rating is inclusive of leg symptoms except for gross motor weakness, bladder or bowel dysfunction, or sexual dysfunction. Permanent partial disability of the lumbar spine is a disability of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.

(3) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.

(a) single vertebral level, 7 percent; or

(b) multiple vertebral levels, 10.5 percent.

(4) pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings.

(a) spondylolisthesis grade I, no surgery, 7 percent;

(b) spondylolisthesis grade II, no surgery, 14 percent; or

(c) spondylolisthesis grade III or IV, without fusion, 24.5 percent.

B. Herniated intervertebral disc, single vertebral level:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 9 percent.

(b) back and specific radicular pain present with objective neurologic findings; and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent;

(2) condition treated by surgery:

(a) surgery or chemonucleolysis with excellent results such as mild low back pain, no leg pain, and no neurologic deficit, 9 percent;

(b) surgery or chemonucleolysis with average results such as mild increase in symptoms with bending or lifting, and mild to moderate restriction of activities related to back and leg pain, 11 percent;

(c) surgery or chemonucleolysis with poor surgical results such as persistent or increased symptoms with bending or lifting, and major restriction of activities because of back and leg pain, 13 percent; or

(d) multiple operations on low back with poor surgical results such as persisting or increased symptoms of back and leg pain, 15 percent;

(3) recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery or chemonucleolysis, add five percent to subitem (2);

(4) herniated intervertebral disc at a new vertebral level other than the previously treated herniated intervertebral disc, calculate rating the same as subitems (1) and (2); or

(5) second herniated disc at adjacent level treated concurrently, add five percent to subitem (1) or (2).

C. Spinal stenosis, central or lateral, proven by computerized axial tomography or myelogram:

(1) mild symptoms such as occasional back pain with athletic activities or repetitive bending or lifting, leg pain with radicular symptoms, one vertebral level and no surgery, 14 percent; or

(2) severe spinal stenosis with bilateral leg pain requiring decompressive laminectomy, single vertebral level, with or without surgery (if multiple vertebral levels, add five percent per vertebral level), 18 percent.

D. Spinal fusion surgery for single vertebral level with or without laminectomy, 17.5 percent. Add five percent for each additional vertebral level.

E. Fractures:

(1) vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, 4 percent;

(2) vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent;

(3) vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent;

(4) vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:

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(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent radicular pain, 12 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;

(5) severe dislocation:

(a) normal reduction with surgical fusion, 12 percent;

(b) poor reduction with fusion, persistent radicular pain, 17.5 percent;

Subp. 2. Cervical spine. The spine rating is inclusive of arm symptoms except for gross motor weakness; sensory loss; and bladder, bowel, or sexual dysfunction. Bladder, bowel, or sexual dysfunction must be rated as provided in part 5223.0060, subpart 7. Permanent partial disability of the cervical spine is a disability of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings but without associated demonstrable degenerative changes, 3.5 percent.

(3) Pain associated with rigidity (loss of motion or postural abnormality) or chronic muscle spasm. The chronic muscle spasm or rigidity is substantiated by objective clinical findings and is associated with demonstrable degenerative changes.

(a) Single vertebral level, 7 percent; or

(b) Multiple vertebral levels, 10.5 percent.

B. Herniated intervertebral disc, single vertebral level:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 9 percent.

(b) Neck and specific radicular pain present with objective neurologic findings; and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; and no surgery is performed for treatment, 14 percent.

(2) Condition treated by surgery:

(a) Surgery with excellent results such as mild neck pain, no arm pain, and no neurologic deficit, 9 percent.

(b) Surgery with average results such as mild increase in symptoms with neck motion or lifting, and mild to moderate restriction of activities related to neck and arm pain, 11 percent.

(c) Surgery with poor surgical results such as persistent or increased symptoms with neck motion or lifting, and major restriction of activities because of neck and arm pain, 13 percent.

(d) Multiple operations on neck with poor surgical results such as persisting or increased symptoms of neck and arm pain, 15 percent.

(3) Recurrent herniated intervertebral disc, occurring to same vertebral level previously treated with surgery, add five percent to subitem (2).

(4) Herniated intervertebral disc at a new vertebral level other than the previously treated herniated intervertebral disc, calculate rating the same as subitems (1) and (2).

(5) Second herniated disc at adjacent level treated concurrently, add five percent to subitem (1) or (2).

C. Spinal stenosis, proven by computerized axial tomography or myelogram.

(1) With myelopathy verified by objective neurologic findings, no loss of function, 14 percent.

(2) Loss of function: the rate provided in part 5223.0060, subpart 7.

D. Fusion of a single vertebral level with or without a laminectomy, 11.5 percent. Add five percent for each additional vertebral level.

E. Fracture:

(1) vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no

fragmentation, no involvement of posterior elements, no nerve root involvement, loss of motion neck and all planes, approximately 75 percent normal range of motion neck with pain, 6 percent;

(2) vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, loss of motion in the neck in all planes, approximately 50 percent normal range of motion in neck with pain, 14 percent;

(3) vertebral compression with a decrease of more than 25 percent of vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, loss of motion in the neck in all planes, approximately 50 percent normal range of motion in neck with pain, 19 percent;

(4) vertebral fracture with involvement of posterior elements with X-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent pain, 12 percent;

(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent;

(5) severe dislocation:

(a) normal reduction with surgical fusion, 12 percent;

(b) poor reduction with fusion, persistent radicular pain, 17.5 percent.

Subp. 3. Thoracic spine. The spine rating is inclusive of all symptoms including radicular gross motor weakness and sensory loss, but excluding spinal cord injury. Permanent partial disability of the thoracic spine is a disabilty of the whole body as follows:

A. Healed sprain, strain, or contusion:

(1) Subjective symptoms of pain not substantiated by objective clinical findings or demonstrable degenerative changes, 0 percent.

(2) Pain associated with chronic muscle spasm. The chronic muscle spasm is substantiated by objective clinical findings and is associated with demonstrable degenerative changes, single or multiple level, 3.5 percent.

B. Herniated intervertebral disc, symptomatic:

(1) Condition not surgically treated:

(a) X-ray or computerized axial tomography or myelogram specifically positive for herniated disc; excellent results, with resolution of objective neurologic findings, 3 percent.

(b) Specific radicular pain present with objective neurologic findings, and X-ray or computerized axial tomography or myelogram specifically positive for herniated disc, and no surgery is performed for treatment, 5 percent.

(2) Condition treated by surgery:

(a) surgery with excellent results such as mild thoracic pain, no radicular pain, and no neurological deficit, 5 percent;

(b) surgery with poor surgical results such as persistence of increased symptoms with lifting, and major restriction of activities, 10 percent.

C. Fractures:

(1) Vertebral compression with a decrease of ten percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement of posterior elements, no nerve root involvement, 4 percent.

(2) Vertebral compression with a decrease of 25 percent or less in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 10.5 percent.

(3) Vertebral compression fracture, with a decrease of more than 25 percent in vertebral height, one or more vertebral segments, no fragmentation, no involvement posterior elements, no nerve root involvement, 15 percent.

(4) Vertebral fracture with involvement of posterior elements with x-ray evidence of moderate partial dislocation:

(a) no nerve root involvement, healed, 10.5 percent;

(b) with persistent pain, with mild motor and sensory manifestations, 17.5 percent;

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(c) with surgical fusion, healed, no permanent motor or sensory changes, 14 percent.

(5) Severe dislocation, normal reduction with surgical fusion:

(a) No residual motor or sensory changes, 12 percent;

(b) Poor reduction with fusion, persistent radicular pain, motor involvement, 17.5 percent.

5223.0080 MUSCULO-SKELETAL SCHEDULE; AMPUTATIONS OF UPPER EXTREMITY.

Permanent partial disability due to amputation of upper extremities is a disability of the whole body as follows:

A. forequarter amputation, 70 percent;

B. disarticulation at shoulder joint, 60 percent;

C. amputation of arm above deltoid insertion, 60 percent;

D. amputation of arm between deltoid insertion and elbow joint, 57 percent;

E. disarticulation at elbow joint, 57 percent;

F. amputation of forearm below elbow joint proximal to insertion of biceps tendon, 57 percent;

G. amputation of forearm below elbow joint distal to insertion of biceps tendon, 54 percent;

H. disarticulation at wrist joint, 54 percent;

I. midcarpal or midmetacarpal amputation of hand, 54 percent;

J. amputation of all fingers except thumb at metacarpophalangeal joints, 32.5 percent;

K. amputation of thumb:

(1) at metacarpophalangeal joint or with resection of metacarpal bone, 21.5 percent;

(2) at interphalangeal joint or through proximal phalynx, 16 percent;

(3) from interphalangeal joint to midportion distal phalynx, 13 percent;

(4) from mid-distal phalynx, distal, 6 percent;

L. amputation of index finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 13.5 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 11 percent;

(3) at distal interphalangeal joint to middistal phalynx, 5 percent;

(4) from middistal phalynx, distal, 2.5 percent;

M. amputation of middle finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 11 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 9 percent;

(3) at distal interphalangeal joint to middistal phalynx, 5 percent;

(4) from middistal phalynx, distal, 2.5 percent;

N. amputation of ring finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 5.5 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 4 percent;

(3) at distal interphalangeal joint to middistal phalynx, 3 percent;

(4) from middistal phalynx, distal, 1.5 percent;

O. amputation of little finger:

(1) at metacarpophalangeal joint or with resection of metacarpal bone or through proximal phalynx, 3 percent;

(2) at proximal interphalangeal joint or through middle phalynx, 2 percent;

(3) at distal interphalangeal joint to middistal phalanx, 1 percent;

(4) from middistal phalynx, distal, 0.5 percent.

5223.0090 MUSCULO-SKELETAL SCHEDULE; SENSORY LOSS, UPPER EXTREMITIES.

Subpart. 1. General. For sensory loss to the upper extremities resulting from nerve injury, the disability of the whole body is set forth in subparts 2 to 4. For the portion of the body described in subpart 2, there must be a total loss of the sensory function. Carpal tunnel syndrome is rated under part 5223.0130, subpart 3, items E and F.

Subp. 2. Total sensory loss. Sensory loss, complete:

A. median function at wrist, 22.5 percent;

B. ulnar function at wrist, 11 percent;

C. radial function at wrist, 5.5 percent;

D. medial antebrachial cutaneous, 3 percent;

E. medial brachial cutaneous, 3 percent;

F. loss of thumb, whole, 11 percent;

(1) radial digital nerve, 4 percent;

(2) ulnar digital nerve, 6.5 percent;

G. index finger, whole, 5.5 percent;

(1) radial digital nerve, whole, 3.5 percent;

(2) ulnar digital nerve, 2 percent;

H. long finger, whole, 5.5 percent;

(1) radial digital nerve, 3.5 percent;

(2) ulnar digital nerve, 2 percent;

I. ring finger, whole, 3 percent;

(1) radial digital nerve, 2 percent;

(2) ulnar digital nerve, 1 percent;

J. little finger, whole, 3 percent;

(1) radial digital nerve, 1 percent;

(2) ulnar digital nerve, 2 percent;

K. sensory loss distal to proximal interphalangeal joint, 50 percent of the value of entire digital nerve as set forth in subpart 2, either radial or ulnar as applicable;

L. sensory loss distal to one-half distal phalanx, 25 percent of entire digital nerve as set forth in subpart 2.

Subp. 3. Quality of sensory loss in hand. The levels of sensory loss and the corresponding disabilities of the whole body are measured as follows:

A. minimal, 2-point discrimination at 6 millimeters or less, 0 percent;

B. moderate, 2-point discrimination greater than 6 millimeters, 1/2 of value in subpart 2;

C. severe, 2-point discrimination at greater than 10 millimeters, 3/4 of value in subpart 2;

D. total, 2-point discrimination at greater than 15 millimeters, same value as in subpart 2.

Subp. 4. Causalgia. When objective medical evidence shows persistent causalgia despite treatment, there is loss of sensory and motor function, loss of joint function, and inability to use the extremity in any useful manner. The permanent partial disability to the member, rating from the most proximal joint involved, and the percentage disability of the whole body is 50 percent of that in part 5223.0080, subpart 1.

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5223.0100 MUSCULO-SKELETAL SCHEDULE; MOTOR LOSS OR MOTOR AND SENSORY LOSS, UPPER EXTREMITIES.

Subpart 1. Total or complete loss. Total or complete loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

A. Motor loss, complete:

(1) median nerve above mid forearm, 30 percent;

(2) median nerve below mid forearm, 19 percent;

(3) radial nerve, 19 percent;

(4) ulnar nerve above mid forearm, 19 percent;

(5) ulnar nerve below mid forearm, 13.5 percent.

B. Complete motor and sensory loss:

(1) median nerve above mid forearm, 40.5 percent;

(2) median nerve below mid forearm, 35 percent;

(3) radial nerve, 27 percent;

(4) ulnar nerve above mid forearm, 21.5 percent;

(5) ulnar nerve below mid forearm, 16 percent.

C. Complete loss of motor function:

(1) brachial plexus complete, 60 percent:

(a) upper trunk C5-6, 47 percent;

(b) mid trunk C7, 23 percent;

(c) lower trunk C8-T1, 46 percent;

(2) anterior thoracic, 3 percent;

(3) axillary nerve, 23 percent;

(4) dorsal scapular, 3 percent;

(5) long thoracic, 9 percent;

(6) musculo cutaneous, 17.5 percent;

(7) subscapular, 3 percent;

(8) suprascapular, 11.5 percent;

(9) thoraco dorsal, 6 percent.

D. Complete loss of function, motor and sensory:

(1) C-5 root, 11 percent;

(2) C-6 root, 12 percent;

(3) C-7 root, 11 percent;

(4) C-8 root, 13 percent.

Subp. 2. Partial loss. Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at subpart 1.

5223.0110 MUSCULO-SKELETAL SCHEDULE; SHOULDER.

Subpart 1. General. For permanent partial disability to the shoulder, disability of the whole body is as in subparts 2 and 3.

Subp. 2. Range of motion.

A. Total ankylosis in optimum position, abduction 60 degrees, flexion ten degrees, rotation, neutral position, 30 percent;

B. total ankylosis in mal-position, grade upward to 50 percent;

C. mild limitation of motion: no abduction beyond 90 degrees, rotation no more than 40 degrees with full flexion and extension, 3 percent;

D. moderate limitation of motion: no abduction beyond 60 degrees, rotation no more than 20 degrees, with flexion and extension limited to 30 degrees, 12 percent;

E. severe limitation of motion: no abduction beyond 25 degrees, rotation no more than ten degrees, flexion and extension limited to 20 degrees, 30 percent;

Subp. 3. Procedures or conditions.

A. Acromio-clavicular separation of the following severity:

(1) grade 1, 0 percent;

(2) grade 2, 3 percent;

(3) grade 3, 6 percent.

B. anterior or posterior shoulder dislocation, no surgery, single episode, 3 percent.

C. recurrent dislocation, at least three times in six months, 10 percent.

D. repair recurrent shoulder dislocation:

(1) no loss of motion, 6 percent;

(2) if mild limitation of motion, 9 percent;

(3) if moderate or severe limitation of motion, rate as in subpart 2, items D and E.

E. resection distal end of clavicle, 3 percent.

F. humeral shaft fracture, normal range of motion both joints, 0 percent.

G. humeral shaft fracture, open reduction, mild restriction of shoulder and elbow motion, 6 percent. For moderate or severe limitation of motion, rate as in subpart 2, items D and E.

H. surgical neck fracture, healed, mild loss of motion, 0 percent; if loss of motion, rate as in subpart 2.

I. greater tuberosity fracture, normal range of motion, 0 percent. If loss of motion, rate as in subpart 2.

5223.0120 MUSCULO-SKELETAL SCHEDULE; ELBOW.

Subpart 1. General. Permanent partial disability of the elbow is disability of the whole body as in subparts 2 and 3.

Subp. 2. Range of motion. Flexion and extension of forearm is 85 percent of the arm. Rotation of the forearm is 15 percent of the arm.

A. Total ankylosis in optimum position approximating midway between 90 degrees flexion and 180 degrees extension, a 45-degree angle, 30 percent.

B. Total ankylosis in mal-position, 40 percent.

C. Limitation of motion:

(1) mild, motion limited from ten degrees flexion to 100 degrees of further flexion, 6 percent;

(2) moderate, motion limited from 20 degrees flexion to 75 degrees of further flexion, 12 percent;

(3) severe, motion limited from 45 degrees flexion to 90 degrees of further flexion, 21 percent;

D. Flail elbow, pseudarthrosis above joint line, wide motion but very unstable, 39 percent.

E. Resection head of radius, 9 percent.

Subp. 3. Procedures or conditions.

A. Radial or ulnar shaft fracture, full motion, 0 percent;

B. radial or ulnar fracture, open reduction, mild limitation of motion as defined in subpart 2, item C, 9 percent;

C. olecranon fracture, no loss of motion, 0 percent;

D. olecranon fracture, open reduction internal fixation, mild limitation of motion as defined in subpart 2, item C, 6 percent;

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E. epicondylar fracture, no loss of motion, 0 percent;

F. epicondylar fracture, mild loss of motion as defined in subpart 2, item C, 6 percent;

G. release medial or lateral epicondyle, 2 percent;

H. ulnar nerve transposition, 2 percent.

5223.0130 MUSCULO-SKELETAL SCHEDULE; WRIST.

Subpart 1. General. Permanent partial disability of wrist is disability of the whole body as set in subparts 2 and 3.

Subp. 2. Range of motion.

A. Excision distal end of ulna, flexion and extension credited with 75 percent of hand, and rotation 25 percent of hand, 5 percent;

B. total ankylosis in optimum position, 19 percent;

C. total ankylosis in mal-position of extreme flexion or extension, 25 percent;

D. limitation of motion:

(1) mild, rotation normal, loss of 15 degrees palmar flexion and loss of 20 degrees dorsiflexion, 5 percent;

(2) moderate, rotation limited to 60 degrees in pronation-supination, loss of 25 degrees palmar flexion, loss of 30 degrees dorsiflexion, 10 percent; or

(3) severe, rotation limited to 30 degrees in pronation-supination, palmer flexion less than 25 degrees, dorsi-flexion less than 30 degrees, 15 percent.

Subp. 3. Procedure or conditions.

A. Colles/Smith, extraarticular:

(1) no loss of motion, 0 percent;

(2) mild loss of motion as defined in subpart 2, item D, subitem (1), 3 percent.

B. Colles/Smith/Barton, intraarticular.

(1) no loss of motion, 0 percent;

(2) mild loss of motion as defined in subpart 2, item D, subitem (1), 6 percent;

(3) moderate loss of motion as defined in subpart 2, item D, subitem (2), 10 percent.

C. Carpal bone fracture, no loss of motion, 3 percent.

D. Carpal dislocation, mild loss of motion as defined in subpart 2, item D, subitem (1), 6 percent.

E. Carpal tunnel release, 0.5 percent.

F. Carpal tunnel release with moderate paresthesias, 3 percent.

G. DeQuervain's release, 0 percent.

H. Ganglion excision, 0 percent.

I. Scaphoid graft, 3 percent.

5223.0140 MUSCULO-SKELETAL SCHEDULE; FINGERS.

Subpart 1. General. Permanent partial disability of fingers is a disability of the whole body as set in subpart 2.

Subp. 2. Ankylosis of joints.

A. Thumb.

(1) Total ankylosis interphalangeal joint:

(a) optimum position, 0 to 15 degrees, 8 percent;

(b) mal-position, flexion greater than 15 degrees, 14 percent.

(2) Total ankylosis metacarpophalangeal joint:

(a) optimum position, up to 25 degree flexion, 10.5 percent;

(b) mal-position, flexion greater than 25 degrees, 14 percent.

(3) Total ankylosis both interphalangeal and metacarpophalangeal joints:

(a) optimum position, 16 percent;

(b) mal-position, 18 percent.

(4) Total ankylosis carpometacarpal joint alone:

(a) optimum position, 4 percent;

(b) mal-position, 8 percent.

(5) Total ankylosis interphalangeal, metacarpophalangeal, and carpometacarpophalangeal joints:

(a) optimum position, 19 percent;

(b) mal-position, 21 percent.

(6) Limitation of motion, thumb:

(a) mild, total closing motion tip of digit, can flex to touch palm, and extend to 15 degrees flexion, strength of grip normal, 3 percent;

(b) moderate, total closing motion, tip of digit, lacks 1/2 inch of touching palm and can extend to 30 degrees flexion, 6 percent;

(c) severe, total closing motion tip of digit lacks one inch of touching palm and can extend to 45 degrees flexion, 9 percent.

B. Digits other than thumb.

(1) to rate any digit excluding the thumb, find the appropriate descriptive category in item A, then multiply the rating by the following factor for the involved digit:

(a) index finger, multiply by 0.6;

(b) middle finger, multiply by 0.5;

(c) ring finger, multiply by 0.25;

(d) little finger, multiply by 0.125.

(2) Total ankylosis of distal interphalangeal joint, multiply rating in unit (a) or (b) by multiplier for involved digit in subitem (1).

(a) optimum position, 5.5 percent;

(b) mal-position, flexed 35 degrees or more, 8 percent.

C. soft tissue loss, isolated soft tissue loss of the end of digit greater than one centimeter, 20 percent of the disability to the whole body for amputation of that digit as set forth at part 5223.0080.

5223.0150 MUSCULO-SKELETAL SCHEDULE; AMPUTATIONS OF LOWER EXTREMITIES.

For permanent partial disability due to amputation of lower extremities the disability of the whole body is:

A. hemipelvectomy, 50 percent;

B. disarticulation at hip joint, 40 percent;

C. amputation above knee joint with short thigh stump, 3 inch or less below tuberosity of ischium, 40 percent;

D. amputation above knee joint with functional stump, 36 percent;

E. disarticulation at knee joint, 36 percent;

F. amputation below knee joint with short stump, 3 inch or less below intercondular notch, 36 percent;

G. amputation below knee joint with functional stump, 28 percent;

H. amputation at ankle, Syme type, 28 percent;

I. partial amputation of foot, Chopart's type, 21 percent;

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J. mid-metatarsal amputation, 14 percent;

K. amputation of all toes at metatarsophalangeal joints, 8 percent;

L. amputation of great toe:

(1) with resection of metatarsal bone, 8 percent;

(2) at metatarsophalangeal joint, 5 percent;

(3) at interphalangeal joint, 4 percent;

M. amputation of lesser toe, 2nd-5th:

(1) with resection of metatarsal bone, 2 percent;

(2) at metatarsophalangeal joint, 1 percent;

(3) at proximal interphalangeal joint, 0 percent;

(4) at distal interphalangeal joint, 0 percent.

5223.0160 MUSCULO-SKELETAL SCHEDULE; NERVE INJURY OR MOTOR AND SENSORY LOSS, LOWER EXTREMITIES.

Subpart 1. Total loss. Total loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the lower extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

A. femoral, anterior crural, 13 percent;

B. femoral, anterior crural, below iliacus nerve, 11 percent;

C. genitofemoral, genito crural, 2 percent;

D. inferior gluteal, 9 percent;

E. lateral femoral cutaneous, 3 percent;

F. posterior cutaneous of thigh, 2 percent;

G. superior gluteal, 7 percent;

H. sciatic, above hamstring innervation, 31 percent;

I. common peroneal, lateral, or external popliteal, 13 percent;

J. deep peroneal, above midshin, 9 percent;

K. deep peroneal, below midshin, anterior tibial, 2 percent;

L. superficial peroneal, 5 percent;

M. tibial nerve, medial, or internal popliteal:

(1) above knee, 15 percent;

(2) posterior tibial, midcalf and knee, 11 percent;

(3) below midcalf, 9 percent;

(4) lateral plantar branch, 3 percent; or

(5) medial plantar branch, 3 percent;

N. sural, external saphenous, 1 percent;

O. L-4 nerve root, 11 percent;

P. L-5 nerve root, 13 percent;

Q. S-1 nerve root, 15 percent; or

R. Lumbosacral plexus, 40 percent.

Subp. 2. Partial loss. Partial loss means that motor function is less than normal but greater than anti-gravity, and there is incomplete sensory loss. Partial loss is rated at 25 percent of the percentages assigned at subpart 1.

5223.0170 MUSCULO-SKELETAL SCHEDULE; JOINTS.

Subpart 1. General. For permanent partial disability of joints, disability of the whole body is set forth in subparts 2 to 9.

Subp. 2. Surgical or traumatic shortening of lower extremity.

A. 1/4 inch to 3/4 inch, 3 percent;

B. 3/4 to 1-1/4 inches, 4.5 percent;

C. 1-1/4 to 1-3/4 inches, 6 percent; or

D. 1-3/4 inches and above, 9 percent.

Subp. 3. Hip.

A. range of motion.

(1) limitation of motion:

(a) mild, anterior posterior movement from 0 degree to 120 degree flexion, rotation and lateral motion, abduction, adduction free to 50 percent of normal, 6 percent;

(b) moderate, anterior posterior motion from 15 degrees flexion deformity to 110 degrees further flexion, rotation, lateral motion, abduction, and adduction free to 25 percent normal, 12 percent;

(c) severe, anterior posterior motion from 30 degrees flexion deformity to 90 degrees further flexion, 22 percent.

B. Procedures or conditions:

(1) nonunion proximal femur fracture without reconstruction, 33 percent;

(2) arthroplasty, able to stand at work and walk, motion 25 percent to 50 percent of normal, 18 percent;

(3) total hip arthroplasty, normal result, 13 percent;

(4) femoral endoprosthesis:

(a) minimal pain, near normal range of motion, able to walk unsupported, 15 percent;

(b) mild to moderate pain with weight bearing, motion 50 percent of normal, 20 percent;

(5) hip pinning for fracture.

(a) minimal pain, near normal range of motion, able to walk unsupported, 5 percent;

(b) mild to moderate pain, motion 50 percent of normal, 10 percent.

Subp. 4. Femur. Femur:

A. shaft fracture, closed, healed, 0 percent;

B. femoral shaft fracture, open reduction, loss of less than 20 degrees of movement of any one plane of either the hip or the knee, no malalignment, 2 percent.

Subp. 5. Knee. Knee:

A. Range of motion.

(1) ankylosis and limited motion, total ankylosis optimum position, 15 degrees flexion, 22 percent;

(2) limitation of motion:

(a) mild, 0 degrees to at least 110 degrees flexion, 2 percent;

(b) moderate, 5 degrees to at least 80 degrees flexion, 7 percent;

(c) severe, 5 degrees to at least 60 degrees flexion, 15 percent;

(d) extremely severe, limited from 15 degrees flexion deformity with further flexion to 90 degree, 18 percent.

B. Procedures or conditions:

(1) surgical removal of medial or lateral semilunar cartilage, more than 50 percent of cartilage removed, no complications, 3 percent;

(2) partial meniscectomy, up to 50 percent of the meniscus removed, 2 percent;

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(3) surgical removal both cartilages, 9 percent;

(4) ruptured cruciate ligament, repaired or unrepaired:

(a) mild laxity, 3 percent;

(b) moderate laxity, 7 percent;

(c) severe laxity, 10 percent;

(5) excision of patella, 9 percent;

(6) plateau fracture, depressed bone elevated, semilunar excised, 9 percent;

(7) plateau fracture, undisplaced, 2 percent;

(8) supracondylar or intercondylar fracture, displaced, 7 percent;

(9) supracondylar or intercondylar fracture, undisplaced, 2 percent;

(10) patella fracture, open reduction or partial patellectomy, displaced, 5 percent;

(11) patella fracture, open reduction or partial patellectomy, undisplaced, 2 percent;

(12) patellar shaving, 1 percent;

(13) arthroscopy, 0 percent;

(14) repair collateral ligament, mild laxity, 2 percent;

(15) repair collateral ligament, moderate laxity, 4 percent;

(16) repair patellar dislocation, 5 percent;

(17) total knee arthroplasty, flexion to 90 degrees, extension to 0 degrees, 13 percent;

(18) total knee unicondylar, 7 percent;

(19) lateral retinacular release, 1 percent;

(20) proximal tibial osteotomy, flexion to 90 degrees, extension to 0 degrees, 5 percent.

Subp. 6. Tibia. Tibia:

A. tibial shaft fracture, undisplaced, healed, normal motion and alignment, 0 percent;

B. tibial shaft fracture, open reduction, loss of less than 20 degrees of movement in any one plane in either the knee or the ankle with full knee extension, no malalignment, 5 percent.

Subp. 7. Ankle and foot.

A. Range of motion:

(1) total ankylosis ankle and foot, pantalar arthrodesis:

(a) in 10 degrees plantar flexion, 15 percent;

(b) mal-position 30 degrees plantar flexion, 20 percent;

(2) ankylosis of foot, subtalar or triple arthrodesis tarsal bones, ankle, normal motion, 7.5 percent;

(a) decreased motion, subtalar joint, 3.5 percent;

(b) ankylosis in mal-position, 8 percent;

(3) ankylosis of tibia and talus, subtalar joints free, optimum position 15 degrees plantar flexion, 12 percent;

(4) limitation of motion in the ankle:

(a) mild, motion limited from position of 90 degrees right angle to 20 degrees plantar flexion, 3 percent;

(b) moderate, motion limited from position of 10 degrees flexion to 20 degrees plantar flexion, 6 percent;

(c) severe, motion limited from position of 20 degrees plantar flexion to 30 degrees plantar flexion, 12 percent.

B. Procedures or conditions:

(1) achilles tendon rupture with treatment surgically or nonsurgically, able to stand on toes, 2 percent;

(2) achilles tendon rupture with treatment surgically or nonsurgically, unable to sustain body weight on toes, 4 percent;

(3) open reduction ankle:

(a) normal range of motion:

i. medial malleolus only, 2 percent;

ii. lateral malleolus only, 2 percent;

(b) normal to mild restriction on range of motion:

i. medial and lateral malleolus, 4 percent;

ii. trimalleolar, 4 percent;

(c) for moderate to severe restriction of range of motion in the ankle, rate as in item A, subitem (4);

(4) ankle, lateral ligament reconstruction, mild laxity, normal range of motion, 2 percent;

(5) ankle, lateral ligament reconstruction, moderate laxity, at least ten degrees greater widening on the Talar tilt stress test X-ray compared to the uninjured side, 3 percent.

Subp. 8. Foot.

A. Range of motion:

(1) ankylosis of tarsal metatarsal or mild tarsal joints:

(a) normal position, 2.5 percent;

(b) mal-position, 5 percent;

(2) limited motion in the foot:

(a) mild, limited motion with mild pain with weight bearing, no change in activities, 2.5 percent;

(b) moderate, limitation of motion with pain with weight bearing, no reduction in athletic or vigorous activities, 5 percent;

(c) severe, limitation of motion with pain with weight bearing, sedentary activities not affected, 10 percent;

B. Procedures or conditions:

(1) calcaneal fracture, extra articular, pain with weight bearing, 6 percent;

(2) calcaneal fracture, intra articular:

(a) mild limitation of motion as in item A, subitem (2), unit (a), 6 percent;

(b) moderate limitation of motion as in item A, subitem (2), unit (b), 12 percent;

(c) severe limitation of motion as in item A, subitem (2), unit (c), 18 percent;

(3) avascular necrosis talus:

(a) mild limitation of motion as in item A, subitem (2), unit (a), 6 percent;

(b) moderate limitation of motion as in item A, subitem (2), unit (b), 12 percent;

(c) severe limitation of motion as in item A, subitem (2), unit (c) 18 percent;

(4) tarsal fractures, healed, mild pain, 3 percent;

(5) metatarsal fractures, healed, 0 percent;

(6) phalyngeal fractures, healed, 0 percent.

Subp. 9. Toes.

A. Complete ankylosis of metatarsophalangeal joint, any toe, 3 percent;

B. complete ankylosis any toe, interphalangeal joint, optimum position semi-flexion, 1 percent.

5223.0180 RESPIRATORY SYSTEM.

Subpart 1. Evaluation procedures. The procedures used in evaluating permanent partial disability of the respiratory system shall include the following:

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A. complete history and physical examination with special reference to cardiopulmonary symptoms and signs;

B. chest roentgenography (posteroanterior in full inspiration, posteroanterior in full expiration timed, three seconds, lateral);

C. hematocrit or hemoglobin determination;

D. electrocardiogram;

E. performance of the following tests of ventilation:

(1) one second forced expiratory volume (FEV1), expressed as a percentage of the normal values set forth in the A.M.A. Guides, pages 69 and 71;

(2) forced vital capacity (FVC), expressed as a percentage of the normal values set forth in the A.M.A. Guides, pages 70 and 72.

F. diffusing capacity studies must be performed when complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits.

Subp. 2. Measurement of respiratory loss of function. Table 1 shall be used to calculate the percentage of disability of the whole body due to permanent partial disability of the respiratory system.

TABLE 1

Symptoms	Forced Spirometry Measurements 1/2 (FEV1 + FVC) (Test three times)	Diffusing Capacity*	Percent Disability of Whole Body
When dyspnea occurs, is consistent with the circumstances of activity.	Not less than 85 percent of normal	Not Applicable	0
Dyspnea does not occur at rest and seldom occurs during the performance of the usual activities of daily living.	70 to 85 percent of normal	Not Applicable	15
Dyspnea does not occur at rest but does occur during the usual activities of daily living.	50 to 70 percent of normal	Usually Not Applicable	30
Dyspnea occurs during activities such as climbing one flight of stairs or walking one block on the level.	25 to 50 percent of normal	40 percent or less of normal	60
Confined to bed and oxygen dependent.	Less than 25 percent of normal	20 percent or less of normal	85

* The diffusing capacity studies must be performed when complaints of dyspnea continue unabated in spite of forced spirometric measurement results above the cut-off limits set forth in Table 1.

Subp. 3. Asthma. Asthma which is not medically controllable and which requires at least six hospitalizations in 12 months, 25 percent.

5223.0190 ORGANIC HEART DISEASE.

Subpart 1. General. For permanent partial disability due to organic heart disease, the disability of the whole body is set forth in subpart 2.

Subp. 2. Heart ratings. The following ratings may be applied only after a compilation of a patient's complete history and a physical examination. Testing must include chest X-ray and electrocardiogram. The testing may include echocardiography, exercise testing, and radionuclide studies.

The following table sets forth symptoms of organic heart disease. The percentage of disability of the whole body is determined by the symptoms present.

Organic Heart Disease Schedule

Percentage Disability of Whole Body	10 percent	30 percent	60 percent	85 percent
Organic Heart Disease	Present	Present	Present	Present
Symptoms	Not present	Not present at rest	Not present at rest	Present at rest
Level of activity causing symptoms	No symptoms from usual activities of daily living, including such activities as stair- or hill- climbing, and walking	No symptoms from usual activities of daily living	Symptoms from a one or more block walk or from climbing stairs. Symptoms also from activities of daily living	Worsening of symptoms with any activity
Level of unusual activity causing symptoms	No symptoms from walking quickly, recreation, hill- or stair-climbing, arm-work, and similar activities	Symptoms from hill- or stair-climbing, walking quickly, arm-work, or recreation.	Symptoms from emotional stress, walking quickly, and similar activities	May be present at rest or may awaken patient
Signs of heart failure	No	No	Relieved by therapy	Not usually relieved by therapy
Signs of symptoms of angina	No	With prolonged or severe exertion	With mild exertion	Rest or nocturnal symptoms
Objective tests of functional status	Ischemic S-T segment changes of at least 1 mm at or before stage 3 of a Bruce protocol exercise test, or diagnostic ischemic changes at a level of 7 METS or less in a nuclear isotope exercise study	Ischemic S-T segment changes of at least 1 mm at or before stage 2 of a Bruce protocol exercise test, or diagnostic ischemic changes at a level of 4 METS or less in a nuclear isotope exercise study	Ischemic S-T segment changes of at least 1 mm at or before stage 1 of a Bruce protocol exercise test, or diagnostic ischemic changes at a level of 2 METS or less in a nuclear isotope exercise study	Diagnostic ischemic S-T segment changes of at least 1 mm on resting electrocardiogram

5223.0200 VASCULAR DISEASE AFFECTING EXTREMITIES.

The following schedule shall be used to determine the percentage of disability of the whole body for permanent partial disability due to vascular disease. Permanent partial disability from vascular disease affecting the extremities must be rated according to the following classifications. The system shall be used only after a complete history and physical examination. The full evaluation shall include imaging examination (X-ray with and without contrast, computer axial tomography scanning, sonography, radionuclide studies) volume studies, or flow studies.

A. Vascular disease schedule, lower extremities.

	Percentage of Disability of Whole Body				
	0 percent	10 percent	30 percent	60 percent	90 percent
Intermittent claudication distance	No	Approx. one city block	Approx. 1/4 city block	Less than 1/4 city block	Constant pain
Pain at rest	No	No	No	Sometimes	Constant

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	0 percent	10 percent	30 percent	60 percent	90 percent
Physical signs of diagnosis	None No ulceration	Healed, painless stump, or healed ulcer	Healed stump but persistent signs of activity, or persistent superficial ulcer	Amputation above wrist or ankle with continued sign of disease, of widespread deep ulcer	Amputation above wrist or ankle in more than one limb, or wide, deep ulceration of more than one limb
Edena	Rare and transient	Persistent, Incompletely controlled	Very severe and only partially controlled	Marked and uncontrollable	Marked and uncontrollable

B. Peripheral vascular disease, upper extremities.

(1) Class 1. The following findings are present: Decreased pulse or pulses; minimal loss of subcutaneous tissue of fingertips; calcification of arteries as detected by radiographic examination or Raynaud's phenomenon that occurs with exposure to temperature lower than zero degrees centigrade (32 degrees Fahrenheit) but is readily controlled by medication; 0 percent.

(2) Class 2. Objective signs of vascular damage as evidenced by findings such as that of a healed, painless stump of an amputated digit showing evidence of persistent vascular disease, or of a healed ulcer; and Raynaud's phenomenon occurs on exposures lower than four degrees centigrade (39 degrees Fahrenheit) but is controlled by medication, 10 percent.

(3) Class 3. Objective signs of vascular damage as evidenced by healed amputation of two or more digits of one extremity, with evidence of persisting vascular disease or superficial ulceration; and Raynaud's phenomenon occurs on exposure to temperatures lower than ten degrees centigrade (50 degrees Fahrenheit) and it is only partially controlled by medication; 30 percent.

(4) Class 4. Objective evidence of vascular damage as evidenced by signs such as amputation of two or more digits of two extremities with evidence of persistent vascular disease, or persistent widespread or deep ulceration involving one extremity; and Raynaud's phenomenon occurs on exposure to temperatures lower than 15 degrees centigrade (59 degrees Fahrenheit) and is only partially controlled by medication; 54 percent.

5223.0210 GASTROINTESTINAL TRACT.

Subpart 1. General. The following schedule is for the evaluation of permanent partial disability of the gastrointestinal tract. The evaluation must include a thorough history and physical examination. Additional studies, such as radiographic, metabolic, absorptive, endoscopic, and biopsy may be necessary to determine the functioning of these organs. Disability shall not be determined until after completion of all medically accepted diagnostic and therapeutic efforts. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.

For evaluative purposes, the digestive tract has been divided into (1) the esophagus, stomach, duodenum, small intestine, and pancreas, (2) the colon and rectum, (3) the anus, and (4) the liver and biliary tract.

Subp. 2. Upper digestive tract (esophagus, stomach, duodenum, small intestine, and pancreas).

A. Class 1, 2 percent.

(1) Symptoms or signs of upper digestive tract disease are present and there is anatomic loss or alteration; continuous treatment is not required; and weight can be maintained at the desirable level; or

(2) There are no complications after surgical procedures.

B. Class 2, 15 percent. Symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; dietary restriction and drugs are required for control of symptoms, signs, or nutritional deficiency; and loss of weight below the desirable weight does not exceed 10 percent.

C. Class 3, 35 percent.

(1) symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and dietary restrictions and drugs do not completely control symptoms, signs, or nutritional state; or

(2) there is 10 to 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.

D. Class 4, 65 percent.

(1) symptoms and signs of organic upper digestive tract disease are present or there is anatomic loss or alteration; and symptoms are not controlled by treatment; or

(2) there is greater than a 20 percent loss of weight below the desirable weight and the weight loss is ascribable to a disorder of the upper digestive tract.

Subp. 3. Colon and rectum.

A. Class 1, 2 percent:

(1) signs and symptoms of colonic or rectal disease are infrequent;

(2) limitation of activities, special diet, or medication is not required; no systemic manifestations are present and weight and nutritional state can be maintained at a desirable level; or

(3) there are no complications after surgical procedures.

B. Class 2, 15 percent. There is objective evidence of colonic or rectal disease and anatomic loss or alteration. There are mild gastrointestinal symptoms with intermittent disturbance of bowel function, accompanied by periodic or continual pain. Minimal restriction of diet or mild symptomatic therapy may be necessary. No impairment of nutrition results.

C. Class 3, 30 percent. There is objective evidence of colonic or rectal disease and anatomic loss or alteration; there are moderate to severe exacerbations with disturbance of bowel habit, accompanied by periodic or continual pain; restriction of activity, special diet and drugs are required during attacks; and there are constitutional manifestations such as fever, anemia, or weight loss.

D. Class 4, 50 percent. There is objective evidence of colonic and rectal disease or anatomic loss or alteration; there are persistent disturbances of bowel function present at rest with severe persistent pain; complete limitation of activity, continued restriction of diet, and medication do not entirely control the symptoms; there are constitutional manifestations such as fever, weight loss, or anemia present; and there is no prolonged remission.

Subp. 4. Anus.

A. Class 1, 2 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; or there is mild incontinence involving gas or liquid stool; or anal symptoms are mild, intermittent, and controlled by treatment.

B. Class 2, 12 percent. Signs of organic anal disease are present or there is anatomic loss or alteration; and moderate but partial fecal incontinence is present requiring continual treatment; or continual anal symptoms are present and incompletely controlled by treatment.

C. Class 3, 22 percent.

(1) signs of organic anal diseases are present and there is anatomic loss or alteration; and complete fecal incontinence is present; or

(2) signs of organic anal disease are present and severe anal symptoms are unresponsive or not amenable to therapy.

Subp. 5. Liver and biliary tract.

A. Class 1, 5 percent.

(1) There is objective evidence of persistent liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate minimal disturbance of the liver function; or

(2) Primary disorders of bilirubin metabolism are present.

B. Class 2, 20 percent. There is objective evidence of chronic liver disease even though no symptoms of liver disease are present; and no history of ascites, jaundice, or bleeding esophageal varices within five years; nutrition and strength are normal; and biochemical studies indicate more severe liver damage than Class 1.

C. Class 3, 40 percent. There is objective evidence of progressive chronic liver disease, or history of jaundice, ascites, or bleeding esophageal or gastric varices within the past year; nutrition and strength may be affected; and there is intermittent ammonia and meat intoxication.

D. Class 4, 75 percent. There is objective evidence of progressive chronic liver disease, or persistent ascites or persistent jaundice or bleeding esophageal or gastric varices, with central nervous system manifestations or hepatic insufficiency; and nutrition state is below normal.

Subp. 6. Biliary tract.

A. Class 1, 5 percent. There is an occasional episode of biliary tract dysfunction.

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B. Class 2, 20 percent. There is recurrent biliary tract impairment irrespective of treatment.

C. Class 3, 40 percent. There is irreparable obstruction of the bile tract with recurrent cholangitis.

D. Class 4, 75 percent. There is persistent jaundice and progressive liver disease due to obstruction of the common bile duct.

5223.0220 REPRODUCTIVE AND URINARY TRACT SCHEDULE.

Subpart 1. General. This part sets forth the percentage of disability of the whole body for permanent partial disability of the reproductive and urinary systems. The percentages indicated in this schedule are the disability of the whole body for the corresponding class.

Subp. 2. Evaluative procedures. For evaluative purposes the reproductive and urinary systems are divided into the: (1) upper urinary tract, (2) bladder, (3) urethra, (4) male reproductive organs, and (5) female reproductive organs.

Procedures for evaluating permanent partial disability of the genitourinary and reproductive systems shall include:

A. a complete history and physical examination with special reference to genitourinary/reproductive symptoms and signs, including psychological evaluation when indicated by the symptoms;

B. laboratory tests to identify the presence or absence of associated disease. The tests may include multi-channel chemistry profile, complete blood count, complete urinalysis, including microscopic examination of centrifuged sediment, chest X-ray, both posterior/anterior and left lateral views, electrocardiogram, performance of a measurement of total renal functions—endogenous creatinine clearance corrected for total body surface area. Other tests may include:

(1) kidney function tests, such as arterial blood gases and determinations of other chemistries that would reflect the metabolic effects of decreased kidney function;

(2) special examinations such as cystocopy, voiding cystograms, cystometrograms;

(3) a description of the anatomy of the reproduction or urinary system;

(4) urodynamics, specifically cystometry combined with electromyography of the external uretheral sphincter to evaluate for presumed upper or lower motor neuron neurogenic bladder; and

(5) nocturnal penile tumescence monitoring with paper or computer printout that displays frequency, duration, and, whenever possible, rigidity of erections.

Subp. 3. Upper urinary tract.

A. Solitary kidney, 10 percent. This category shall apply only when a solitary kidney is the only upper urinary tract permanent partial disability. When a solitary kidney occurs in combination with any one of the following four classes, the disability rating for that class shall be increased by 10 percent.

B. Class 1, 5 percent. Diminution of kidney function as evidenced by a creatinine clearance of 50 to 70 percent of age and sex adjusted normal values, other underlying causes absent.

C. Class 2, 22 percent. Diminution of the upper urinary tract function as evidenced by a creatinine clearance of 40 to 50 percent of age and sex adjusted normal values, no other underlying disease.

D. Class 3, 47 percent. Diminution of upper urinary tract function, as evidenced by creatinine clearance of 25 to 40 percent of age and sex adjusted normal values.

E. Class 4, 77 percent. Diminution of upper urinary tract function as evidenced by creatinine clearance below 25 percent of age and sex adjusted normal values.

Subp. 4. Bladder.

A. Class 1, 5 percent. Symptoms and signs of bladder disorder requiring intermittent treatment, but without evidence of intervening malfunction between periods of treatments or symptomatology.

B. Class 2, 15 percent. Symptoms and signs of bladder disorder requiring continuous treatment, or there is bladder reflex activity but loss of voluntary control.

C. Class 3, 20 percent. Poor reflex activity evidenced by intermittent dribbling, and no voluntary control.

D. Class 4, 30 percent. Continuous dribbling.

Subp. 5. Urethra.

A. Class 1, 2 percent. Symptoms and signs of urethral disorder are present which require intermittent therapy for control.

B. Class 2, 15 percent. Symptoms and signs of urethral disorder that cannot be effectively controlled by treatment.

Subp. 6. Penis.

A. Class 1, 10 percent. Impaired sexual function but vaginal penetration is possible, with supporting objective evidence of abnormal penile tumescence studies to substantiate impaired tumescence or rigidity.

B. Class 2, 20 percent. Impaired sexual function and vaginal penetration is not possible, with supporting objective evidence of insufficient penile tumescence or rigidity.

C. Psychogenic impotence, 0 percent.

Subp. 7. Testes, epididymides, and spermatic cords.

A. Class 1, 5 percent.

(1) symptoms and signs of testicular, epididymal, or spermatic cord disease are present and there is anatomic alteration; and

(2) continuous treatment is not required; and

(3) there are no abnormalities of seminal or hormonal functions; or

(4) solitary teste is present.

B. Class 2, 10 percent.

(1) symptoms and signs of testicular, epididymal or spermatic cord disease are present and there is anatomic alteration; and

(2) frequent or continuous treatment is required; and

(3) there are detectable seminal or hormonal abnormalities.

C. Class 3, 20 percent. Trauma or disease produces bilateral anatomical loss or there is no detectable seminal or hormonal function of testes, epididymides, or spermatic cords.

D. Inguinal hernia, direct or indirect, unilateral or bilateral, recurrent after two or more herniorrhaphies, 5 percent.

Subp. 8. Prostate and seminal vesicles.

A. Class 1, 5 percent.

(1) there are symptoms and signs of prostatic or seminal vesicular dysfunction or disease;

(2) anatomic alteration is present; and

(3) continuous treatment is not required.

B. Class 2, 10 percent.

(1) frequent severe symptoms and signs of prostatic or seminal vesicular dysfunction or disease are present; and

(2) anatomic alteration is present; and

(3) continuous treatment is required.

C. Class 3, 20 percent. There has been ablation of the prostate or seminal vesicles.

Subp. 9. Vulva and vagina.

A. Class 1, 10 percent. Impaired sexual function but penile containment is possible.

B. Class 2, 20 percent. Impaired sexual function and penile containment is not possible.

Subp. 10. Cervix and uterus.

A. Class 1, 5 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which do not require continuous treatment; or

(2) cervical stenosis, if present, requires no treatment; or

(3) there is anatomic loss of the cervix or uterus in the postmenopausal years.

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B. Class 2, 10 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which require continuous treatment; or

(2) cervical stenosis, if present, requires periodic treatment.

C. Class 3, 20 percent.

(1) symptoms and signs of disease or deformity of the cervix or uterus are present which are not controlled by treatment; or

(2) cervical stenosis is complete; or

(3) anatomic or complete functional loss of the cervix or uterus occurs in premenopausal years.

Subp. 11. Fallopian tubes and ovaries.

A. Class 1, 5 percent.

(1) symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which do not require continuous treatment; or

(2) only one fallopian tube or ovary is functioning in the premenopausal years.

B. Class 2, 10 percent. Symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present which require continuous treatment, but tubal patency persists and ovulation is possible.

C. Class 3, 20 percent.

(1) symptoms and signs of disease or deformity of the fallopian tubes or ovaries are present and there is total loss of tubal patency or total failure to produce ova in the premenopausal years; or

(2) bilateral loss of the fallopian tubes or ovaries occurs in the premenopausal years.

5223.0230 SKIN DISORDERS.

Permanent partial disability resulting from skin disorders are a disability of the whole body as set forth in this part. This schedule is based upon the effect of the disorder on the ability to function and perform activities of daily living and the degree of treatment required for the disorder. The schedule is not based upon the location or the percentage of the body affected by a specific skin disorder. Impairment due to burns shall be rated under part 5223.0240 and not under this schedule.

A. Class 1, 2 percent. Signs or symptoms of skin disorder are present and supported by objective skin findings. With treatment there is no or minimal limitation in the performance of the activities of daily living, although certain physical or chemical agents might temporarily increase the extent of limitation.

B. Class 2, 10 percent. Signs and symptoms of skin disorder are present and intermittent treatment is required. There is limitation in the performance of some of the activities of daily living.

C. Class 3, 20 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required. There is limitation in the performance of many of the activities of daily living.

D. Class 4, 45 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which may include periodic confinement at home or other domicile. There is limitation in the performance of many of the activities of daily living.

E. Class 5, 70 percent. Signs and symptoms of skin disorder are present. Continuous treatment is required which necessitates confinement at home or other domicile. There is severe limitation in the performance of nearly all of the activities of daily living.

5223.0240 BURNS.

Subpart 1. General. The whole body disability due to burns is not equal to the percent of body surface area which is burned. The percentage of body surface area affected must be determined according to Lund and Browder. The ratings determined under subparts 1 to 4 must be combined as set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c), provided that the maximum disability to the whole body under this schedule must not exceed 70 percent. Loss of motion or body parts except the face must be rated under the musculoskeletal schedules and must not be considered as included in a rating under this part unless specifically provided otherwise.

Subp. 2. Burns other than electrical conduction. A rating under this part is the rating assigned by items A to F combined as provided in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c):

A. Any burn that heals within one month and leaves no hypertrophic scar, 0 percent.

B. Cold intolerance of the hands, face, or head as evidenced by the wearing of heavy gloves or additional scarves at 35 degrees Fahrenheit; a scar of at least ten square centimeters must be present for an affected member to be rated under this item:

(1) dominant hand, 4 percent;

(2) nondominant hand, 3 percent;

(3) both hands, 6 percent;

(4) face, 3 percent; or

(5) face and both hands, 10 percent.

C. Heat intolerance is evidenced by fatigue, malaise, nausea, and an oral temperature of at least 100 degrees Fahrenheit upon exposure to an environmental temperature of 90 degrees Fahrenheit at 60 percent relative humidity, 5 percent.

D. Sensitivity to sun exposure as evidenced by the need to cover the skin or use sun screen to prevent sunburn; a scar of at least ten square centimeters must be present for an affected member to be rated under this item:

(1) dominant hand, 4 percent;

(2) nondominant hand, 3 percent;

(3) both hands, 6 percent;

(4) face, 3 percent; or

(5) face and both hands, 10 percent.

E. Sensitivity to dust, chemical, or petroleum exposure; altered sweating; or apocrine gland dysfunction. For one or any combination of these conditions, the whole body disability is:

(1) If the sensitivity affects less than 5 percent of the body surface area, 0 percent.

(2) If the sensitivity affects 5 to 20 percent of the body surface area, 2 percent.

(3) If the sensitivity affects 20 percent or more of the body surface area, 3 percent.

F. Sensory loss due to burns:

(1) Loss of sensation on palmar surface of hands shall be rated as provided by part 5223.0090, subpart 3.

(2) Sensory loss in less than 5 percent of the body surface area, 0 percent.

(3) Sensory loss in 5 to 20 percent of the body surface area, 2 percent.

(4) Sensory loss in more than 20 percent of the body surface area, 5 percent.

Subp. 3. Electrical conduction injuries.

A. Associated sensory loss and concommitant thermal injuries must be rated as provided in subpart 1.

B. Peripheral nerve deficits must be rated as provided in the musculoskeletal schedule.

The ratings under items A and B must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

Subp. 4. Cosmetic disfigurement. This part applies to disfigurement on the face, the head, the neck, or the hands due to burns. Where there is surgery, this rating is done after correction by plastic surgery. The final rating under this schedule shall not be done until hypertrophic scarring is matured or more than 24 months after the injury. The ratings under the items of this part must be combined in the manner set forth at Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

A. The face is the anterior head from the forehead, to and including the chin.

(1) Loss of facial features:

(a) Deformity of nasal tip or deformity, thinning, or eversion of ala nasi, 5 percent.

(b) Loss of more than 50 percent of nasal cartilage or of both ala nasi, 25 percent.

(2) Eyes:

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(a) Loss of one eyebrow, 2.5 percent.

(b) Loss of two eyebrows, 5 percent.

(c) Ectropian unaccompanied by visual impairment:

i. Lower lid pulled from eye when mouth is opened and neck extended, 5 percent.

ii. Lower lid pulled away with no movement of face or neck, 10 percent.

iii. Cornea unprotected when sleeping, 15 percent.

(d) Epiphora unaccompanied by visual impairment, 10 percent.

(3) Mouth. A rating under this subitem is the arithmetic sum of units (a) to (d).

(a) Noncongenital microstomia or distortion affecting eating and dental hygiene, 10 percent.

(b) Eversion of the upper lip, 7.5 percent.

(c) Eversion of the lower lip, 7.5 percent.

(d) Distortion of vermillion border, 10 percent.

(4) Ear. Loss of 75 percent or more of one external ear, 5 percent.

(5) Hypertrophic scarring of face in areas other than those covered in subitems (1) to (4):

(a) Affecting only forehead above the eyebrows, 10 percent.

(b) Affecting the lower face from eyebrows to chin, 25 percent.

(c) Affecting both the forehead above the eyebrows and the lower face from the eyebrows to chin, 35 percent.

(6) Wrinkling of face in areas other than those covered in subitems (1) to (5), one-third of percentages in subitem (5).

B. Head, Alopecia:

(1) Anterior hairline:

(a) Loss of less than 20 percent of hair on anterior hairline, 0 percent.

(b) Loss of 20 to 50 percent of hair on anterior hairline, 2 percent.

(c) Loss of more than 50 percent of hair on anterior hairline, 3 percent.

(2) Elsewhere on head and not affecting anterior hairline:

(a) Loss of 0 to 15 percent of hair, 0 percent.

(b) Loss of 15 to 30 percent of hair, 1 percent.

(c) Loss of 20 to 50 percent of hair, 2 percent.

(d) Loss of more than 50 percent of hair, 3 percent.

The ratings under subitems (1) and (2) must be combined as set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

C. The anterior neck extends from the ear lobule anteriorally to the ear lobule and downward to mid clavicle. Disfigurement on the posterior neck from the ear lobule posteriorally to the ear lobule shall not be rated under this rule. Ratings under subitems (1) and (2) shall be combined as set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c).

(1) Hypertrophic scarring or banding:

(a) Affecting less than 10 percent of the anterior neck, 0 percent.

(b) Affecting 10 to 30 percent of the anterior neck, 10 percent.

(c) Affecting 30 to 50 percent of the anterior neck, 12 percent.

(d) Affecting more than 50 percent of the anterior neck, 15 percent.

(2) The chin shelf is the area from the chin backwards to the neck.

(a) Chin shelf extends less than 2 inches, 3 percent.

(b) Chin shelf extends less than 1 inch, 10 percent.

D. The hand extends from the carpus outward. Loss of body parts and loss of motion are rated in the musculoskeletal schedule.

(1) Hypertrophic scarring affecting less than 30 percent of dorsum of one hand, 0 percent.

(2) Hypertrophic scarring affecting 30 to 50 percent of dorsum of one hand, 3 percent.

(3) Hypertrophic scarring affecting 50 percent or more of dorsum of one hand, 7 percent.

5223.0250 PREEXISTING IMPAIRMENTS.

Where a disability is subject to apportionment under Minnesota Statutes, section 176.101, subdivision 4a, the rating for the disabled condition under a category of the schedules of this chapter must be reduced as provided in this part. As used in this part, the term disabled condition includes the preexisting disability.

A. This part applies where the preexisting disability has not been rated and neither item B nor C is applicable.

(1) The preexisting disability must be rated under a category of the schedules of this chapter.

(2) The whole body disability rating assigned to the disabled condition of the member by the schedules of this chapter must be reduced by the rating assigned to the preexisting disability of the member in subitem (1).

(3) For example, the medical report establishes a preexisting impairment of amputation of the index finger at the metacarpophalangeal joint. This injury is a 13.5 percent preexisting disability to the body as a whole under part 5223.0080, subpart 1, item L, subitem (1). The disabled condition is amputation of all fingers except the thumb at the metacarpophalangeal joint, a 32.5 percent disability under part 5223.0080, subpart 1, item J, 32.5 percent less 13.5 percent gives the disability (adjusted for the preexisting impairment) of 19 percent. Payment is made for the 19 percent disability at the rate appropriate for a 32.5 percent disability. Thus, if economic recovery benefits are paid, 19 percent is multiplied by 680 weeks; for impairment benefits, 19 percent is multiplied by $85,000.

B. This item applies where the preexisting disability of a member has been rated in another proceeding or state and the rating represents a percentage of disability to the whole body. The rating of the disabled condition under a category of these schedules shall be reduced by the rating assigned to the preexisting disability of the member.

C. This item applies where the injury producing the preexisting disability occurred prior to January 1, 1984, and the preexisting disability has been rated under Minnesota Statutes, section 176.101, subdivision 3; or where Minnesota Statutes, chapter 176 is inapplicable and the rating represents a percentage of disability of a member.

(1) From Table 1, determine the maximum whole body disability assignable to the preexisting disability. Use Table 2 where disability to an internal organ is rated as a percentage of disability to the particular organ rather than a percentage of disability to internal organs. Where the preexisting disability is not listed in Table 1 or Table 2, the maximum whole body disability is the maximum disability assigned to the affected member by the schedules of this chapter.

TABLE 1

Member	Maximum Whole Body Disability (Percent)
Thumb	16
Index finger	11
Middle finger	9
Ring finger	4
Little finger	2
Great toe	5
Lesser toe	1
Hand	54
Hand and wrist	54
Arm	60
Foot	21
Foot and ankle	28
Leg	40

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Member	Maximum Whole Body Disability (Percent)
Eye	24
Eyes (both)	85
Hearing loss, (one ear)	6
Hearing loss (both ears)	35
Back	71
Voice	70
Burns and skin impairments, including disfigurement	70
Internal organs, excluding brain	85
Brain	100
Head	20

TABLE 2

Member	Maximum Whole Body Disability (Percent)
Stomach	65
Pancreas	65
Colon	50
Spleen	0
Bladder	30
Sexual organs or function	20
Circulatory system	90
Heart	85
Lungs	85
Liver	75
Solitary kidney	10
Kidney, excluding solitary kidney	77

(2) Multiply the prior rating of the member's preexisting disability by the maximum whole body disability determined in subitem (1). Where a disputed rating has been closed out to a stipulated rating but payments were made on a different rating, the rating for purposes of this part is the closed-out rating.

(3) Subtract the percentage amount determined in subitem (2) from the whole body disability rating assigned to the disabled condition of the member by the schedules of this chapter. The remainder is the amount due for the disabled condition after apportionment for the preexisting disability.

(4) For example, a pre-1984 back injury was rated at 25 percent of the back. The whole body disability attributable to this injury is 25 percent by 71 percent equals 17.75 percent. After 1984, a second back injury is rated at 24.5 percent under this chapter (24.5 percent minus 17.75 percent equals 6.75 percent). Six and three-fourths (6.75) percent is the amount assigned to the disabled condition after apportionment.

D. Where both Minnesota Statutes, sections 176.101, subdivision 4a, and 176.105, subdivision 4, paragraph (c) apply, apportionment must be determined as follows:

(1) For each member, determine the percentage of whole body disability under items A to C, as appropriate.

(2) Combine the percentages obtained in subitem (1) in the manner set forth in Minnesota Statutes, section 176.105, subdivision 4, paragraph (c). Prior to the next application of the formula, the result of an application of the formula must be stated as a decimal, not as a percentage, that is rounded up or down to four decimal places.

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

FINDINGS OF FACT AND CONCLUSIONS

The above-captioned rules were published in the State Register, together with a Notice of Intent to Adopt Rules without a Public Hearing, on August 5, 1985. Proper notice was served upon all interested persons and groups registered for that purpose with the Department of Labor and Industry, Workers' Compensation Division, as required by Minn. Stat. § 14.22 (1984).

After affording interested persons and groups an opportunity to present written and oral data, statements and arguments, and having considered all of the evidence adduced upon the records, files and proceedings herein, I make the following:

FINDINGS OF FACT

1. During the 30-day comment period following publication of the proposed rules, no comments were received.

2. Upon final review of the proposed rules, two errors have been noted and are corrected in the following two changes, both of which are nonsubstantial.

a. Minn. Rules part 5223.0100, subpart 1, is changed as follows:

> Subpart 1. Total or complete loss. Total or complete loss means that motor function is less than anti-gravity and there is complete loss of sensation. For loss to the ~~lower~~ upper extremities resulting from nerve injury, and where there is total loss of function for those particular portions of the body, the disability of the whole body is:

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The balance of subpart 1 is unchanged. This change corrects the erroneous reference to the lower extremities. As indicated in the title of Part 5223.0100, the upper extemities are the subject of this rule. Further, each of the nerves listed in Items A-D are upper extremity nerves. The initial paragraph of subpart 1 is intended to be introductory and descriptive. Because the change is an editorial clarification and does not affect the ratings under the rule, it is not substantial.

b. Minn. Rules Part 5223.0110, subp. 3.H., is changed as follows:

H. surgical neck fracture, healed, ~~mild~~ no loss of motion, 0 percent; if loss of motion, rate as in subpart 2.

This change is necessary to correct the logical inconsistency in the proposed Item H. As proposed, the category provides conflicting directions for rating a mild loss of motion. The rating under subpart 2.C. would be 3 percent; a rating of the same condition under the first clause of Item H is 0 percent. The intent of Item H. is to provide for the rating of all loss of motion conditions under subpart 2. The change clarifies the intended operation of the rule and does not affect the 3 precent amount intended as the rating for the condition. For these reasons the change is not substantial.

Based upon these Findings of Fact, I make the following:

CONCLUSIONS

1. That the Department gave proper notice of the proposed rules to all interested persons and groups.

2. That the Department has fully complied with all procedural requirements of law or rule in adopting the proposed rules.

3. That the Department has acted within its statutory authority in adopting these proposed rules.

4. That the proposed rules as modified are needed and reasonable and fully comply with substantive requirements imposed by law or rule.

STATE OF MINNESOTA

Steve Keefe

Steve Keefe, Commissioner
Department of Labor and Industry

Dated: September 23, 1985

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability.

STATEMENT OF NEED AND REASONABLENESS

INTRODUCTION

Minn. Stat. § 176.105 (1984) directed the Commissioner of the Department of Labor and Industry to adopt temporary rules for the rating of permanent partial disability in workers' compensation by January 1, 1984. Prior to January 1, 1984, permanency ratings were set forth in Minn. Stat. § 176.101, subd. 3. This rules proceeding converts those temporary rules into permanent rules.

In promulgating the temporary rules, several statutory requirements were met. Actuarial analysis determined that the schedules in the aggregate provide benefits approximately equal to those payable under the statutory schedule that existed prior to January 1, 1984. Minn. Stat. § 176.105, subd. 4(a) (1984). Pursuant to Minn. Stat. § 176.105, subd. 4(b), the Commissioner conducted an analysis of the existing statutory permanent partial disability schedule for the purpose of determining the number and distribution of permanent partial disabilities and the average compensation for various permanent partial disabilities. The Commissioner also performed a written analysis of the disability schedules of other states as suggested by Minn. Stat. § 176.105, subd. 4(b) (3). These documents were made part of the rulemaking record at the public hearing held on November 4, 1983, pursuant to Minn. Stat. § 176.105, subd. 4 (1984). The Statement of Need and Reasonableness for the temporary rules, also included in the hearing record, documented the Commissioner's consideration of the factors listed in Minn. Stat. § 176.105, subd. 4(b) (1)-(7).

Having worked with the temporary rules for the past year and a half, the Commissioner has found them to be fair, objective, and consistent. As the rules greatly simplify the rating of disabilites, the rules are strongly supported by medical professionals.

The proposed permanent rules are essentially identical to the temporary rules. The few clarifying changes and additions that have been made to the temporary rules are explained in the detailed analysis of the rules below.

PART 5223.0010. General.

The basic purpose of specifying disability for categories of impairment is to promote consistency and objectivity in the rating of permanent impairments, thereby reducing litigation regarding the rating of disabilities.

Subpart 2 provides rules for interpreting the schedules. One of the purposes of the interpretation rules is to ensure selection of the smallest number of categories necessary to fairly represent the disabling condition. Thus, cumulation and duplication are prohibited. A specific restriction on cumulation is included for the musculoskeleletal schedule. To avoid rating on a basis other than the categories of the schedules, averaging or prorating is also prohibited.

The statutory A + B (1-A) formula is added to this subpart. Its addition to the permanent rules was requested by medical practitioners, who often do not have copies of the statute readily available. Its inclusion increases the ease of use of the rules.

The schedules are the exclusive rating basis as stated in Subpart 3. The disability rating assigned to each category includes a consideration of loss of function.

Subpart 4 lists the documents incorporated by reference. These documents are standard medical references which are in common use. The documents are incorporated only to the extent that they are specifically referenced or are necessary for definition.

The edition references of Items A, G, and J of Subpart 4, the A.M.A. Guides, Dorland's, and Hollinshead, respectively, are changed from the temporary rules to reflect new editions of these reference works. Because of the new incorporation by reference requirements of Minn. Stat. § 14.07, subd. 4 (1984), publishers are identified and a statement of availability and frequency of change is added to the permanent rules.

PART 5223.0020. Definitions.

Most of the sections of this rule define medical terms. Although these terms are defined in Dorland's or other documents incorporated by reference, the definitions in those documents were not sufficiently specific for the purpose of these rules. These terms are thus defined in the context of their use in the rules.

PART 5223.0030. Eye Schedule.

The Minnesota Medical Association adapted the eye schedule from the Wisconsin schedule and from the A.M.A. Guides. The eye schedule of this rule is a significant improvement over the out-dated method used under the statutory schedule. With the statutory schedule, only distance vision was used as a measure of impairment. Thus, there was no compensation for impairment of near vision, of field vision, or of ocular motility. The schedule set forth in this rule corrects these inadequacies and provides a method for determining visual impairment which was consistent with present medical practice.

The examination requirements of Subpart 2 follow generally accepted ophthalmological practices.

Subpart 3 describes the three factors (central visual acuity, field vision, and ocular motility) used to measure vision and the possible range within which the measurement of each factor may fall. For central visual acuity, the maximum at Subpart 3.A.(1), and the minimum for distance vision at Subpart 3.B.(1)(a), are those of both the A.M.A. and Wisconsin schedules. The minimum for near vision at Subpart 3.B.(1)(b) follows the Wisconsin schedule. The A.M.A. Guides measure near vision to only 14/140. The use of the Wisconsin limit permits greater distinctions at the higher levels of impairment.

For the visual field, the A.M.A. Guides were followed in choosing the maximum limit of 500 degrees at Subpart 3.A.(2). This maximum differs from the Wisconsin limit of 420 degrees. The availability and general professional acceptance of the A.M.A. visual field charts supported the selection of the A.M.A. method. The effect of increasing the normative visual field is to slightly increase the disability rating, and thus compensation. A visual field of 420 degrees is measured as unimpaired under the Wisconsin system, while the same visual field is impaired when measured against a 500 degree standard.

For ocular motility, the maximum limit at Subpart 3.A.(3) is consistent with that of Wisconsin and the A.M.A. Guides. The minimum limit at Subpart 3.B.(3) is adopted from the Wisconsin schedule.

The 50 percent minimum at Subpart 3.B.(3) prevents overcompensation of ocular motility impairment. The worst case of double vision should not be compensated to the same extent that total blindness is compensated. Without the 50 percent minimum, this could occur because of the calculation method employed.

Subpart 4 prescribes the methods for measuring the three factors of vision. Subpart 4.A.(1)-(4) set forth standard testing and calculation procedures. Table 1 is taken from the Wisconsin schedule and its use is consistent with the selection of the Wisconsin standards for maximum and minimum central visual acuity efficiency.

Subpart 4.A.(5) and (6) permit downward adjustments of the efficiency measurement for aphakia and pseudophakia, conditions resulting from the development of cataracts. These adjustments are intended to compensate for the increased fragility of the eye and the need for corrective lenses. In cases of severe impairment, the adjustment under these provisions may result in less compensation than an adjustment for glasses under Subpart 5.B.(2) or (3). In order to permit a higher compensation for the injury, the adjustment is not made where an adjustment under Subpart 5 permits more compensation.

Subparts 4.B. and 4.B.(1) describe standard procedures for measuring visual field efficiency. Subpart 4.B.(2)sets forth the standard procedure to be followed in cases of irregular impairment of field. The number of radii selected will depend on the nature and extent of the particular impairment. The divisor for calculating efficiency will vary from case to case, depending on the number of radii selected.

Subpart 4.B.(3) is also the standard procedure followed by ophthalmologists where field vision is severely impaired.

Subpart 4.C., the measurement of ocular motility, follows the method set forth in the A.M.A. Guides. The A.M.A. ocular motility chart was selected because of its availability and general acceptance in the ophthalmological profession. The proposed permanent rules incorporate the 1984 edition of the A.M.A. Guides, and the page references for the motility chart and the visual field chart of Subpart 4.B. are thus changed from those of the temporary rules.

Subpart 5 prescribes the method for combining the three factors (central visual acuity, field vision and ocular motility) to determine the visual efficiency of one eye. The factors are simply multiplied together. The method chosen is that used by Wisconsin and is relatively uncomplicated. The A.M.A. method is considerably more complex and requires the use of comparative value tables.

Subpart 5.B. permits adjustments to the efficiency calculation in certain cases. For most eye conditions, visual impairment is the most objective and significant aspect of symptomatology. In some cases, vision is not affected by the condition or visual impairment is not a fair measure of the disability. Subpart 5.B.(1) provides additional compensation for conditions of the eye where visual impairment due to the condition was considered an inadequate basis for compensation.

Subpart 5.B.(2) and (3) permit additional compensation where corrective lenses are required as a result of the injury. The rationale for this adjustment is that dependence or increased dependence on corrective lenses is in itself an impairment, even where the correction gives 100 percent visual efficiency.

Subpart 6 follows the A.M.A. Guides in prescribing the method for calculating visual system impairment from the impairment to each eye. Both the Wisconsin and A.M.A. systems use this method. Table 2 is taken from the A.M.A. Guides.

PART 5223.0040. Ear Schedule.

The ear schedule was promulgated by a Minnesota Medical Association's Otolaryngology Committee. Consistent with the A.M.A. Guides, the schedule is based on binaural rather than monaural hearing loss. Use of the binaural standard reflects the belief that hearing impairment should be compensated as an impairment to the audiological system rather than to one ear in isolation. Thus, the effect on overall hearing determines the extent of compensable loss.

Subparts 2-4 of the rule describe the medical and testing procedures which precede the calculation of disability. Generally accepted medical procedures are required in Subparts 2 and 4. For audiological testing, calibration at regular intervals is required in Subpart 3 to ensure accurate measurement of hearing loss. Equipment calibration requirements are the ANSI standards which are generally used in the profession. The requirement to keep records is included so that a reliable method is available to substantiate a claim of proper calibration.

Subpart 5 of the rule prescribes the methods for calculating disability. At Subpart 5.A.(1), four test readings are required. Some procedures delete the 3,000 hertz reading and require only three test readings. By including the fourth reading at 3,000 hertz, the rule permits compensation for hearing loss in the higher ranges.

The 25 decibel "fence" of Subpart 5.A.(3) is the level at which there is usually no impairment in the ability to hear normal speech under normal conditions. The effect of the fence is that hearing in an ear is considered unimpaired if the average hearing level for that ear is 25 decibels or less.

The calculation procedure in Subpart 5.A.(4)-(6) is consistent with that used in the A.M.A. Guides and is in common use among practicing otolaryngologists.

The ear schedule of Subpart 5.C., translating binaural hearing loss to whole body disability, is taken from the A.M.A. Guides.

Subpart 6 of the rule disallows an adjustment for presbycusis. Some schedules from other states decrease the whole body disability rating where presbycusis is diagnosed. Because presbycusis generally affects the higher ranges of hearing, some compensation for presbycusis may occur through the inclusion of the 3,000 hertz testing level. The difficulties of diagnosis and the desire to maintain simplicity in the calculations support the reasonableness of the prohibition against adjusting disability for presbycusis. To the extent that presbycusis is documented as a pre-existing impairment, an adjustment pursuant to Minn. Stat. § 176.101, subd. 4 (a) may be made.

Subpart 7 of the rule disallows an adjustment for tinnitus. The disallowance is due to the subjective nature of the complaint and the difficulty of accurate diagnosis. Where complaints are objectively substantiated, the tinnitus usually impairs hearing and is thus indirectly compensated by increased impairment readings.

PART 5223.0050. Skull Defects.

The skull defects schedule was developed by the Minnesota Medical Association's Neurology Task Force to standardize the disability ratings for damage to the cranial bones of the head. In considering skull defects, the Task Force concluded that skull fractures, when not associated with skull defects, are usually not a permanent partial disability and thus did not include fractures under this rule. The rule distinguishes between filled defects, in which bone or artificial substances are used to replace the damaged skull, and unfilled defects. With unfilled defects, the brain remains unprotected by a rigid covering and the compensation for these defects is therefore higher.

PART 5223.0060. Central Nervous System.

The organization of the central nervous system schedule follows that of the A.M.A. Guides in addressing central nervous system impairments in terms of disorders of the cranial nerves, the spinal cord, and the brain.

Subparts 2 through 6 of the schedule categorize disabilities due to impairment of the cranial nerves. The percentages of disability generally follow the A.M.A. Guides, but provide greater detail and specificity. To the extent that hearing is affected, impairments of the cochlear nerve are compensated under the Ear Schedule, Part 5223.0040. Impairments of the oculomotor, trochlear and abducens nerves, which are responsible for eyeball motility and regulation of pupil size, are compensated by the Eye Schedule, Part 5223.0030. Impairments of the olfactory nerve are compensated under Subpart 8.L.

Subpart 7 categorizes disorders due to spinal cord impairment. For upper extremity impairments at Subpart 7.B., the disability rating for relatively minor impairments varies depending on whether the preferred or nonpreferred extremity is affected. The distinction between preferred and nonpreferred is not made for the more severe impairments. This is because with severe impairments the ability to perform self cares is minimal, and the distinction between preferred and nonpreferred extremities becomes meaningless.

Urinary bladder and anorectal impairments due to spinal cord injury are categorized at Subpart 7.D. and E. The distinction among categories is based on degree of continence and voluntary control.

Sexual function impairment due to spinal cord injury is categorized at Subpart 7.F., using the same categories as are used in Part 5223.0220 Subparts 6 and 9. The temporary rules repeated the categories of Part 5223.0220, while the permanent rules incorporate them by reference.

Impairments due to brain injury are categorized in Subpart 8. The categories generally follow the A.M.A. Guides in classifying the impairments under communication disturbances, cerebral function disturbances, emotional disturbances, consciousness disturbances, and epilepsy. The rule goes beyond the A.M.A. Guides in distinguishing expressive and receptive communication disturbances and in providing categories for psychotic disorders, paralysis, headaches, and loss of taste and smell.

Item K. of Subpart 8 is a new addition to the proposed permanent rules. In the temporary rules only peripheral loss of taste is rated at 8 MCAR § 1.9006 C. 1. This mechanism for loss of taste is extremely rare and would require damage to both peripheral facial and hypoglossal nerves. The more common injury is a total loss of taste from a head injury to

the central nervous system. Because 8 MCAR § 1.9006 C. 1. is the category which most nearly describes the condition, total loss of taste from a head injury would be rated at 3 percent under the temporary rules. Adding the new category simply clarifies and makes technically correct the ratings currently in use.

Item L., loss of smell, is also a new addition to the permanent rules. A category for this impairment was not previously included because of the lack of objective tests for determining the presence of the impairment. As recent medical developments now provide testing procedures, it is appropriate to add this category.

A major contribution to objectivity in rating under this schedule is the incorporation of the Kenny scale for self cares at Subparts 4, 7.B., and 8.F. The Kenny scale provides an objective procedure for rating independence in self cares. Each of the self care factors is rated on a 0 to 4 scale. The numbers translate to medical judgment terminology as follows:

> A composite score of 24 to 28 or a single factor score of 4 means totally independent.
> A composite score of 16 to 24 or a single factor score of 3 means minimally or mildly dependent.
> A composite score of 10 to 16 or a single factor score of 2 means moderately or markedly dependent.
> A composite score of 0 to 10 or a single factor score of 1 or 0 means severely or totally dependent.

In most cases, the subjective medical judgment should suffice for a rating; a formal evaluation pursuant to the Kenny system will be unnecessary. In questionable cases, however, the use of the Kenny evaluation procedure should practically eliminate disputes regarding the degree of dependence in self cares. Incorporation of the Kenny rating system thus significantly contributes to objectivity and the reduction of litigation in the application of this schedule.

PARTS 5223.0070. - 5223.0170. Musculo-Skeletal Schedule.

The musculo-skeletal schedule of Parts 5223.0070 - 5223.0170 follows the A.M.A. Guides in dividing impairments into those of the back (Part 5223.0070), the upper extremities (Parts 5223.0080 - 5223.0140), and the lower extremities (Parts 5223.0150 - 5223.0170). In addition to the A.M.A. Guides, the Manual for Orthopaedic Surgeons in Evaluating Permanent Physical Impairment was also used in the development of the musculo-skeletal schedule.

PART 5223.0070. Back Schedule.

Disorders of the back are divided generally into those of the lumbar spine, Subpart 1, and those of the cervical spine, Subpart 2 and those of the thoracic spine, Subpart 3. While the back schedule is consistent with the Orthopaedic Manual, the departures from the manual improve the objectivity and workability of the rule. Subparts 1 - 3 clarify the various levels of disability while remaining consistent with the Orthopaedic Manual.

At the recommendation of the Minnesota Medical Association's Committee, a new category is added to the herniated intervertebral disc categories of the lumbar, cervical and thoracic spine. The new categories, at Subpart 1.B.(1)(a), Subpart 2.B.(1)(a), and Subpart 3.B.(1)(a), add ratings for cases where the neurologic deficit due to a herniated disc is resolved without surgery. Presently the rules include a rating only where neurologic deficit is unresolved and no surgery has been performed. As the neurologic deficit can be resolved without surgery in some cases, the addition of the new categories is needed to clarify the rating in these situations. The committee recommended the addition for consistency with the categories for surgical treatment of herniated discs. See Subpart 1.B.(2)(a), 2.B.(2)(a), and 3.B.(2)(a).

Subpart 1.B.(5) is a new category in the proposed permanent rules. The temporary rules do not describe handling of concurrent herniated discs treated simultaneously. Subitems (3) and (4) of this part describe separate clinical events and not a single episode involving more than one level. A single episode involving more than one level is currently rated either as a single level episode (in which case it is undercompensated) or by applying the additive formula to the single level rating (in which case the condition is overcompensated). The new category clarifies the rating of more than one herniated disc occurring during the same episode. The same clarification is made with respect to the cervical spine at Subpart 2.B.(5).

A new category is also added for minor fractures of the lumbar, cervical and thoracic spine, where vertebral height is decreased by ten percent or less. See subparts 1.E.(1), 2.E.(1), and 3.C.(1) respectively. Under the temporary rules, the rating of very limited fractures is unclear. Arguably no rating is available because there is no category accurately describing this condition. Alternatively, the limited compression fracture may be ratable under 8 MCAR § 1.9007, A.5.a., B.5.a., or C.3.a., which apply where vertebral height is decreased by 25 percent or less. As vertebral height may be decreased by only a few percent, this may cause overcompensation. Adding the new category more accurately rates minor compression fractures.

PART 5223.0080. Upper Extremity Amputation Schedule.

This rule is adopted from the A.M.A. Guides. Some categories were added to increase the specificity of the rule. The rating for amputation includes a consideration of motor and sensory loss. Pursuant to Part 5223.0010, Subpart 2, an additional rating under Parts 5223.0090 or 5223.0100 for motor or sensory loss is not permitted where this amputation schedule is used.

A new category is added at Subpart K.(4) of the permanent rules for mid-distal amputations of the thumb. This rating was included in the temporary rules for all the other digits, and its omission in the temporary rules was an oversight. See Subparts L.(4), M.(4), N.(4) and O.(4).

PART 5223.0090. Sensory Loss, Upper Extremities.

The A.M.A. Guides are used as the basis for this rule. The schedule departs from the Guides to simplify the levels of impairment, and to provide objectivity to the specific percentages applied. Pursuant to Part 5223.0010, Subpart 2., this schedule may not be used where either the motor loss or the amputation schedule is used.

At Subpart 1, a new sentence is added at the end of the subpart regarding the rating of carpal tunnel syndrome. Doctors using the temporary rules have questioned whether carpal tunnel should be rated under this section or under the wrist section (Part 5223.0130). , and This proposed addition specifies that carpal tunnel is rated under the wrist section, not under the sensory loss schedule. This is reasonable because the wrist schedule contains specific references to carpal tunnel syndrome. See Part 5223.0130, subp. 3C.,D.

PART 5223.0100. Motor Loss, Upper Extremities.

The A.M.A. Guides are used as the basis for this rule. The schedule departs from the Guides to simplify the levels of impairment and to provide objectivity in the specific ratings. Pursuant to Part 5223.0010, Subpart 2, this schedule may not be used where either the motor loss or the amputation schedule is used.

PART 5223.0110. - 5223.0140. Musculo-Skeletal Schedule.

The shoulder, elbow, wrist, and finger schedules are adopted from the Orthopaedic Manual. Each schedule is broken into two basic sections: range of motion and other conditions. The section entitled "Procedures and Conditions" provides workable evaluation procedures and is an

improvement on the Orthopaedic Manual. Pursuant to Part 5223.0010. Subpart 2, a disability should be rated under either the range of motion section or the procedures section; it should not be rated under both sections.

In the shoulder schedule, Part 5223.0110, changes and additions have been made under Subpart 3.D., G., H., and I. to recognize variations in the results of surgery. For the repair of a recurrent shoulder dislocation, the temporary rules contains ratings only where the surgery results in no loss of motion. The permanent rules clarify the rating where there is loss of motion after surgery.

In the finger schedule, Part 5223.0140, extensive changes have been made. Item 1 of Part B of 8 MCAR § 1.9014 of the temporary rules is deleted and replaced by Item 2 of Part B, which is now Subpart 2.A. of the proposed permanent rules.

The disability percentages assigned to the thumb have been changed. Physicians using the schedule in the temporary rules complained that the schedule in the temporary rules failed to reflect the relative value of individual digits. This weighting is expressed in Part 5223.0080, amputations, which makes clear that the fingers are different in their importance. Without the proposed changes, ratings will frequently exceed the value of amputation of that member. For example, in rating a little finger injury under 8 MCAR § 1.9014 B.1.a.2., the value is 5 percent, yet the value for amputation at the DIP is 1 percent. This inconsistency occurs in many areas of 8 MCAR § 1.9014, and is contrary to Part 5223.0010, Subpart 2, which provides that "the percent of whole body disability for motor or sensory loss of a member shall not exceed the percent of whole body disability for amputation of the member." It is thus necessary to revise the schedule of the temporary rules so that the rating for motor or sensory loss does not exceed the rating for amputation.

To accomplish this, the multipliers are added to Subpart 2.B.(1)(a) - (d). They are derived from the weighting in Part 5223.0080. The additional changes in Part 5223.0140 are needed to allow this new system to work and maintain compatibility with the AMA and American Academy of Orthopedic Surgeons Disability Rating Guides, which served as the basis for these ratings. The net outcome is an increase in ratings for the thumb and index fingers, and a decrease in ratings of the ring and little fingers.

The temporary rules' category for soft tissue loss, now Part 5223.0140, Subpart 2.C., omitted any description of the size of the defect necessary for a rating. Without a clearer description of the ratable defect, trivial defects could be rated the same as distal amputations. This is corrected in the permanent rules. Also, the reference in this paragraph to 8 MCAR § 1.9009 is incorrect, and this typographical error is changed to the intended citation in the permanent rules.

PART 5223.0150. Amputations of Lower Extremities.

The amputation of lower extremities schedule is adopted from the A.M.A. Guides. The schedule is specific and provides objectivity in its application. Pursuant to Part 5223.0010, Subpart 2, an injury cannot be rated under both this rule and Part 5223.0160.

PART 5223.0160. Sensory Loss, Lower Extremities.

This rule is adopted from the A.M.A. Guides. The percentages of disability are within the ranges provided by the Guides. Pursuant to Part 5223.0010, Subpart 2, this schedule does not apply where the amputation schedule is used.

PART 5223.0170. Joints Schedule.

This schedule is adapted from the Orthopaedics Manual and the A.M.A. Guides. As with the upper extremities schedule, the body part is rated in one of two sections: range of motion or conditions and procedures. As provided by Part 5223.0010, Subpart 2, it is the intent of this rule to rate under only one of these sections. Thus, where a procedure or condition results in a loss of range of motion, the disability should be rated under the procedures or condition section only.

A new category is added at Subpart 5, the knee schedule. Originally Subpart 5.B.(1) applied to all cases where cartilage is removed from the knee. Subpart 5.B.(2) adds a rating for a partial meniscectomy where cartilage is partially removed. Subpart 5.B.(1) is clarified so that there is no overlap between this subpart and the new category for partial meniscectomies. As this is a relatively new surgical procedure it was not included in the temporary rules. The new partial meniscectomy is less intrusive than that described in Subpart 5.B.(1) and results in less permanent impairment. For this reason, it is rated lower than 5.B.(1). Without this new category, the procedure would be rated under Subpart 5.B.(1). The new category thus adds precision to the rules.

Item (12), patellar shaving, is also a new category in Subpart 5.B. It too reflects a relatively new procedure for which no accurate descriptive category was available in the temporary rules.

A new category is added to the ankle schedule in Subpart 7.B.(5). The new category is necessary to permit the rating of a surgical result that is less successful than that described in Subitem (4), an ankle reconstruction with normal range of motion. Without this additional category, all ankle reconstructions would be assigned the lower rating.

PART 5223.0180. Respiratory System.

The respiratory system schedule is a modification of the A.M.A. Guides. The classification of impairment is based primarily on the degree of dyspnea and the degree of impairment of ventilatory function. These factors are more easily evaluated than general characteristics such as malaise, fatigability, and excessive cough. Diffusing capacity studies are necessary when the patient's statement about the severity of dyspnea is inconsistent with forced spirometric measurement results. Diffusing capacity studies do not require subject cooperation, and are therefore useful as objective diagnostic tools.

The evaluation procedures listed in Subpart 1 are the accepted medical procedures applicable to respiratory system dysfunction.

The 0, 15 and 30 percent classes of Table 1 in Subpart 2 correspond to classes 1 through 3 of the A.M.A. Guides. The roentgenogram appearance factor is eliminated. The roentgenogram test result for each class in the A.M.A. Guides is equivocal, and thus not as definitive as the other criteria.

A zero percent class is included to clarify the fact that not all normal individuals will score one hundred percent on the forced spirometry measurement. Since there is a wide variation among normal individuals, no impairment is recognized until the test shows 85 percent of normal or less. The forced spirometry tests are administered three times to eliminate misleading results, with the highest test result determined as most representative of the subject's ability.

A fifth 85 percent rating for severe impairment was added in the temporary rules to the A.M.A. Guide's four classes. The diffusing capacity and forced spirometry measurement ranges in the 60 percent class are thus reduced to smaller, more specific categories. The individual confined to bed and requiring oxygen in the 85 percent class is clearly more disabled than the 60 percent person who is ambulatory, even if only for short distances. The severe loss of organ function and restriction of almost all normal daily activities justify the creation of this class.

PART 5223.0190. Organic Heart Disease.

The organic heart disease schedule is a simplification of the classifications used in the A.M.A. Guides. Permanent impairment due to heart disease most commonly results from failure of myocardial function, or impairment of coronary circulatory function, or both. A definite percentage of disability, within the range given by the A.M.A. Guides, is assigned to each class.

Subpart 2 prescribes procedures to be followed in the diagnostic analysis. It is established medical practice to obtain a detailed history before assigning a rating. Similarly, a physical exam is needed to assess psychological responses to physical processes and physical responses to psychological processes, which are common in heart disease patients. Hence, it is essential that objective tests including x-rays and electrocardiograms be performed. Other standard tests, including echo-cardiography, exercise testing, and radionuclide studies, may be indicated by the symptoms present. Establishing a rating is appropriate only after maximum medical and surgical therapy and rehabilitation, plus a reasonable period of time to permit maximum circulation and other adjustments.

Each category of disability in Subpart 2 requires a diagnosis of organic heart disease. In the category of least impairment, organic heart disease is present according to diagnostic tests, but is asymptomatic. The remaining categories are distinguished by the effects of the activities of daily living, as defined in Part 5223.0020, Subpart 5, and other specified activities.

For each category of disability, the measurement of ischemic S-T segment changes is added in the permanent rules. The testing referenced in these additions provides reproducible, objective, and readily obtainable information which correlates with the functional status and helps document the appropriate rating category. It thus increases the accuracy of the ratings.

PART 5223.0200. Vascular Disease Schedule.

A separate schedule for vascular disease affecting the extremities has not previously existed, although the statutory schedule in Minn. Stat. § 176.101, subd. 3 (1982) contained values assigned for loss of limbs. The vascular disease schedule is derived from the A.M.A. Guides. These impairments are most commonly the result of diseases of the arteries, veins, or lymphatics.

Prior to classification by this schedule, vascular disease must first be diagnosed using accepted medical standards. A complete history and physical exam, as well as imaging examination, volume studies, or flow studies are required to establish the diagnosis.

Classification in this schedule depends upon the severity and extent of lesions on the extremities. When amputation due to peripheral vascular disease is present, the amputation of lower extremities schedule in Part 5223.0150 should be used.

In Subpart A, the categories of the vascular disease schedule are based upon the physical symptoms present and the resulting effect upon the activity of walking. An individual with a zero percent disability experiences rare and transient edema, but no other physical symptoms or pain upon walking. This minor condition is uncompensated.

A ten percent disability is characterized by intermittent pain upon walking approximately one city block at an average pace and persistent, incompletely controlled edema. No active ulcers or stumps are present.

The 30, 60 and 90 percent categories each require either an active ulcer or signs of activity in a stump; pain upon walking short distances; and severe or marked edema. Choice of class is based upon the physician's observation of signs of ulceration, diseased limbs, and degree of edema present. The pain reported by the patient is also considered. The 60 and 90 percent classifications both include advanced signs of disease, but are easily distinguished by the number of limbs affected.

A new category, Subpart B, is added to clarify the rating of upper extremities. The schedule in the temporary rules has proven inadequate and inaccurate for rating upper extremity impairments. The added categories are based on the A.M.A. Guides. These additions permit greater accuracy and fairness in ratings of the upper extremities.

PART 5223.0210. Gastrointestinal Tract.

The gastrointestinal tract schedule parallels the A.M.A. Guides and assigns percentages within the ranges given in the Guides. This schedule replaces the original schedule contained in Minn. Stat. § 176.101, subd. 3 (40) (1982), which gave no guidelines for assigning percentages of disability. The specificity of the schedule promotes objectivity, consistency, and workability in the rating of disability.

Subpart 1 follows the accepted medical practice of requiring a thorough history and physical exam, and recommends typical diagnostic tests.

Subpart 2 classifies disorders of the upper digestive tract according to symptoms or signs of disease, anatomic loss or alteration, and weight variations. These factors may be objectively evaluated by the examining physician.

Under the temporary rules, a class 1 symptom may be premised on purely subjective complaints of the patient. To promote consistency and objectivity as required by Minn. Stat. §§ 176.105, subd. 4(b)(6) and 176.021, subd. 3 (1984), class 1 requires objective evidence, in addition to subjective symptoms.

Classes 2 through 4 describe impairments resulting in increasing weight loss and decreasing responsiveness to treatment by drugs and dietary restrictions. The divisions among classes are based upon evidence of disease and loss of function of the upper digestive tract organs.

Colonic and rectal impairments are classified in Subpart 3. The basis for the division into classes of impairment is objective evidence of disease or anatomic loss or alteration. The physician notes the presence or absence of constitutional manifestations such as fever, anemia, and weight loss. The level of restriction in normal activities and diet is similarly graduated by class. These categories are specifically delineated, thereby reducing the likelihood of litigation.

In the class 2 and class 3 descriptions of Subpart 3.B. and C., the word "or" is changed to "and." The use of "or" was an error in the temporary rules; "and" indicates that objective structural changes are necessary for a rating in these categories. Minn. Stat. §§ 176.021, subd. 3, and 176.105, subd. 4 support this change by their directives to base ratings on objective evidence.

Subpart 4 contains classes of anal impairment due to disease or local injury. Part 5223.0060, subp. 7E governs classification of disturbances in fecal continence resulting from neurological disorders.

Classes 1 through 3 each require objective signs of organic anal disease. The evaluator rates the degree of incontinence, frequency of symptoms, and amenability of the symptoms to treatment. There should be little difficulty quantifying the required treatment and the patient's response to treatment. Each class is distinguished by the response to and results of treatment.

The five percent impairment classification of Subpart 5.A. is based upon objective evidence of persistent liver disease when no symptoms of liver disease are present. As liver disease may be present in the absence of symptoms or physical findings, the requirement that biochemical studies indicate at least a minimal disturbance in liver function avoids reliance on complaints which are not objectively substantiated. The remaining classifications detail the physical manifestations of progressive liver disease.

Biliary tract impairments are rated in Subpart 6 according to the frequency of the impairment and the type of obstruction present. These classifications follow the A.M.A. Guides.

PART 5223.0220. Reproductive And Urinary Tract Schedule.

This rule provides criteria for evaluating disability due to impairment of the reproductive and urinary systems. Subpart 2 describes standard medical procedures to be followed in evaluating the impairment. Because of the diversity of potential impairments and injuries to these systems, tests which would apply to all conditions could not be specified. The listing of test procedures at Subpart 2.B is thus descriptive of the type of testing generally accepted for these disabilities. It is included to give guidance to the practitioner in selecting appropriate tests and procedures. Specific testing requirements for male impotence are added to the permanent rules at Subpart 2.B (4) and (5) to improve the clarity and objectivity of rating this impairment.

Subpart 3 contains the upper urinary tract schedule. The disability rating for a solitary kidney at Subpart 3.A. applies even where there is no impairment of function. The rationale for this rating is that reliance on only one kidney represents the loss of a normal safety factor. Dependence on a solitary kidney is thus a disability regardless of the present funtional ability of the renal system. When impairment of function is combined with a solitary kidney, the disability should be higher than the same functional impairment occurring with both kidneys. For this reason the rule provides for an increase in the disability rating for a class when a solitary kidney is present.

Subpart 3.B. - E. divides the upper urinary tract impairment into four classes. This division is essentially that of the A.M.A. Guides. As the creatine clearance test should be adequate in nearly all cases, the PSP test recommended by the A.M.A. Guides is not required.

Subpart 4 sets forth classes of bladder impairment. The extent of bladder reflex activity is the basis for distinguishing among the classes.

Subpart 5 provides two classes of urethral impairment. The class distinctions are those of the A.M.A. Guides and depend on the extent to which the disorder is controlled by treatment.

Subparts 6, 7 and 8 classify disorders of the male reproductive organs, and Subparts 9, 10 and 11 classify parallel disorders of the female organs. The classification generally follows the A.M.A. Guides, except at Subparts 6 and 9, which deal with loss of sexual function. The standards set forth in Subparts 6 and 9 are simpler and more objective than those of the A.M.A. Guides. Specific testing requirements for

male impotence are added at Subpart 6.A. and B. to improve clarity and objectivity in rating. A new category is added at Subpart 6.C. for psychogenic impotence. Because this is a treatable condition that is generally not permanent, it is uncompensated.

In Subpart 7, a new category for inguinal hernia is added at Subpart 7.D. An uncorrectable hernia is a physical impairment that is not specifically rated. The category most closely describing this condition is Class 1 under Subpart 7.A., but the description is not entirely accurate. The condition is relatively uncommon. However, by adding the category, the fairness and accuracy of the schedule is improved.

PART 5223.0230. Skin Disorders.

The skin schedule is based on the A.M.A. Guides. The disability is evaluated according to the effect of the disorder on the ability to function and perform activities of daily living, and according to the degree of treatment required. The classes represent a logical progression which is easy for the practitioner to use.

Each class requires the presence of signs or symptoms of a skin disorder. A Class 1 disorder, a two percent disability, must be supported by objective skin findings, thus eliminating the rating of undocumented complaints. The remaining classes are divided according to treatment and the effect of the disorder on activities of daily living, as defined at Part 5223.0020, Subpart 5.

No provision of Part 5223.0230 specifically provides compensation for disfigurement or scarring. Some types of scarring may cause skin disorders. Any functional impairment due to disfigurement or scarring will be evaluated under this schedule according to the degree of treatment required and the effect on activities of daily living. In addition, if the loss of function from scarring or disfigurement is to a body part or system other than the skin, that loss will be evaluated in accordance with the applicable schedule for that body part or system.

PART 5223.0240. BURNS.

This schedule was developed by burns experts on the Minnesota Medical Association Task Force.

Subpart 1 requires the use of the Lund and Browder method for determining the percentage of body surface affected. This method is commonly used by physicians. Because some physicians mistakenly equate the percentage of body surface affected with the percent of whole body

disability, Subpart 1 specifies that this equation is not an appropriate rating method. The method is inaccurate because burns to relatively immobile body parts, such as the back, affect function less than burns of the same size to a joint area, such as the knee or elbow.

Subpart 2 excludes electrical conduction burns because the effects are significantly different from those of other burns. The sensitivity factors listed in Items B through F are common effects of non-electrical burns that affect functional abilities.

Items B and D now require the presence of a scar to obtain a rating for burns. This is necessary to avoid excessive ratings of trivial conditions. Subitems B.(1) - (5) and D.(1) - (5) were not included in the temporary rules. These subitems are added in recognition of the different importance of various body members. The rules are thus more accurate and precise than the temporary rules.

Subpart 3 governs the rating of electrical conduction injuries. They are rated under the musculo-skeletal and sensory provisions of the rules. This is because these injuries cause impairments more similar to those of traumatic injuries rather than the impairments caused by flame burns.

Subpart 4 describes categories for rating cosmetic disfigurement on the face, head, neck or hands due to burns. Other cosmetic disfigurements are not covered due to their minor effect on function and employability. Severe disfigurement to members which are ordinarily not covered by clothing may affect employability and workplace behavior. This subpart thus provides categories for rating relatively severe cosmetic disfigurement.

PART 5223.0250. PREEXISTING IMPAIRMENTS.

Minn. Stat. § 176.105, Subd. 4 (b)(6) (1984) provides that, in promulgating these rules, the commissioner may consider the treatment of pre-existing disabilities with respect to the evaluation of permanent functional disability. This rule on pre-existing impairments is made necessary by the 1983 legislation authorizing apportionment of pre-existing disabilities. Minn. Stat. § 176.101, Subd. 4(a) (1984). Prior to this statute, apportionment was available only in extremely limited circumstances. See, e.g., Wallace v. Hanson Silo, 235 N.W. 2d 363, 305 Minn. 395 (1975). Further, where an employee has sustained injuries both before and after January 1, 1984, apportionment of multiple disabilities was complicated by the transfer to a whole body disability rating system, from a system where disability was rated as a percentage of a body member. This rule is thus necessary to simplify this new apportionment system.

Three methods of apportionment are prescribed by this rule. Because of the complexity of apportionment, an example is included with two of the methods to illustrate the application of the method.

Item A is a catchall that is to be used only if Items B or C are not applicable. Generally, this part will be used where the pre-existing disability has not been rated. The pre-existing injury is rated according to the whole body schedules of these rules. The whole body schedule was selected to avoid the conversion step where a percent-of-member schedule is used.

Item B describes the method to be used where the pre-existing impairment has been rated under a whole body system. The system may be that of these rules or a system used in a non-workers' compensation proceeding or by another state. The apportionment method here is a simple subtraction procedure. The method produces a fair result in a simple and straightforward manner.

The method described in Item C applies where the pre-existing disability has been rated as a percent of a member under the system existing prior to January 1 of 1984. This method is complicated because it requires converting the percent of a member to a percent of the whole body. Tables 1 and 2 are used in this conversion procedure. The tables set forth the maximum whole body disability assigned to a member. These maximums are essentially the maximums set forth for each member by the schedules of these rules. After converting to a whole body percentage, the subtraction procedure as described in Item B is applied.

This method was developed after consideration of the rating practices under the old law and the types of apportionment situations likely to arise under the current law.

Item D prescribes the method for apportioning disabilities where more than one member is injured in an occurrence. Because the intent was not clear in the temporary rules, the wording of this part has been changed in the permanent rules. The rule clarifies the method for combining a disability which is subject to apportionment. The apportionment calculation is completed first. Then the combination formula is applied.

For example, an injury to the back causes a 10 percent disability of the whole body. A later occurrence injures the back and the knee. The knee disability is rated at 15 percent of the whole body while the back is now rated at 25 percent of the whole body. The apportioned back disability is 15 percent (25 percent - 10 percent). Applying the A + B (1-A) formula, the combined whole body disability attributable to the later occurrence is 27.75 percent.

IMPACT ON SMALL BUSINESSES

The Commissioner has considered the potential impact of these rules on small businesses to the extent required by Minn. Stat. § 14.115 (1984). Insurers, self-insured employers, and health care providers who rate permanency may be affected by these rules. Self-insured employers and insurers are not small businesses within the meaning of Minn. Stat. § 14.115, subd. 1 (1984). Health care providers who rate permanency, generally medical doctors and chiropractors, are service businesses regulated by government bodies for standards and costs as described in Minn. Stat. § 14.115, subd. 7 (1984). Minn. Stat. § 14.115 (1984) thus does not apply to these health care providers. The Commissioner has therefore not considered methods for reducing the impact of these rules on the classes of persons who may be affected by them.

FISCAL IMPACT ON LOCAL PUBLIC BODIES

The Commissioner has considered the fiscal impact of these rules on local public bodies pursuant to Minn. Stat. § 14.11, subd. 1. (1984) and has found none. No additional financial burdens are placed on local public bodies, as the adoption of these rules will not require the expenditure of public money by local public bodies.

JV/lc

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption
by the Minnesota Department of Labor
and Industry, Workers' Compensation
Division, of Rules Governing
Permanent Partial Disability

CERTIFICATE

I hereby certify that no persons or groups have requested to be informed that materials in the above-captioned matter have been submitted to the Attorney General pursuant to Minn. Stat. § 14.26 (1984).

Joan Volz, Chief Counsel
Department of Labor and Industry

Dated: September 23, 1985.

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
WORKERS' COMPENSATION DIVISION

In the Matter of the Proposed Adoption by the Minnesota Department of Labor and Industry, Workers' Compensation Division, of Rules Governing Permanent Partial Disability

CERTIFICATE OF COMPLIANCE WITH RULEMAKING PROCEDURES

I hereby certify that I have examined the rules and all related documents and that, based on my examination and my personal familiarity with the applicable procedures; the Administrative Procedure Act, the rules of the Office of Administrative Hearings, and the rules of the Attorney General have been followed.

Harold Schultz
Special Assistant
Attorney General

Dated: September 27, 1985.