DISABLED PEOPLE'S ASSOCIATION • SINGAPORE •

VOX NOSTRA

GLOSSARY OF DISABILITY TERMINOLOGY

THE ESSENTIAL GUIDE TO WORDS AND PHRASES ACCEPTABLE TO PEOPLE WITH DISABILITIES

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Disabled People's Association, Singapore (DPA)
1 Jurong West Central 2 #04-01
Jurong Point Shopping Centre
Singapore 648886
www.dpa.org.sg

A

Able-bodied: Sometimes used incorrectly as an antonym of “disabled” in phrases such as “Disabled people, unlike able-bodied people…” The preferred antonym for ‘disabled’ is ‘non-disabled’ or ‘person without a disability’.

Access: Suitability of a building or other structure for use by people with disabilities. In a broader sense, access also included making forms and information accessible to people with visual or cognitive disabilities; making alarms and signals accessible to people who are deaf or hard of hearing; and making services such as education and transport accessible to people with disabilities.

Access aisle: An accessible pedestrian space, for example, between parking spaces, seating or desks that provides appropriate clearance for use of those parking spaces etc.

Access audit: Detailed examination of a building or other structure, generally by independent experts, to ascertain its suitability for use by people with disabilities.

Accessibility: The degree to which a building or other structure provides access for (mainly physically) disabled people. In Singapore, this is determined primarily by the Building and Construction Authority’s Code on Accessibility in the Built Environment.

Accessible: In the case of a facility, readily usable by a person with disabilities (PWD); in the case of a program or activity, presented or provided in such a

way that a PWD can participate, with or without auxiliary aid(s); in the case of electronic resources, accessible with or without assistive computer technology.

Accessible route: A continuous unobstructed path connecting all accessible parts of a building or facility. Interior accessible routes may include corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps and lifts.

Accessible tourism: A form of travel or tour operation specially catered to the needs of people with disabilities: Braille signs and audio tours for the blind/visually impaired are common examples, as are closed captions on information videos, wheelchair ramps, and ready access to elevators.

Accessible web design: Creating web pages according to universal design principles to eliminate or reduce barriers, including those that affect people with disabilities. Ideally, all websites should conform to Level AAA of the Web Content Accessibility Guidelines 2.0. For more information about these guidelines, please see the W3C Web Accessibility Initiative website at http://www.w3.org/WAI/WCAG2AAA-Conformance

Acid maltase deficiency: Also called AMD, Pompe disease, glycogenosis type 2, acid-alpha glucosidase deficiency, lysosomal storage disease.
A metabolic muscle disorder, a group of diseases that interferes with the processing of food (in this case, carbohydrates) for energy production. This disease causes slowly progressive weakness, especially of the respiratory muscles and those of the hips, upper legs, shoulders and upper arms. For more information, see the websites of:

- Muscular Dystrophy Association (Singapore) – http://www.mdas.org.sg
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Activity: The execution of a task or action by an individual. (World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.)

Activity limitations: Difficulties an individual may have in executing activities. (World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.)

Activities of daily living: In the context of rehabilitation and independent living by people with disabilities, these include dressing, making the bed, showering, shaving, combing hair, eating, making drinks and all other activities which will assist in enabling a person with a disability to function to the maximum of his or her capacity within the family and the community.

Adaptability: The ability of certain building spaces and elements, such as kitchen counters, sinks and grab bars, to be added or altered so as to accommodate the needs of persons with different types or degrees of disability.

Adaptive technology: Any object or system that is specifically designed for the purpose of increasing or maintaining the capabilities of people with disabilities - often refers specifically to electronic and information technology access.

ADHD / Attention Deficit Hyperactivity: This term now includes ADD / Attention Deficit Disorder - a disorder that appears in early childhood. ADHD makes it difficult for people to inhibit their spontaneous responses (responses can involve everything from movement to speech to attentiveness). People with ADHD may be:

- Inattentive, hyperactive, and impulsive (the most common form)
- Inattentive, but not hyperactive or impulsive.
- Hyperactive and impulsive, but able to pay attention

For more information, see the websites of

- SPARK (Society for the Promotion of ADHD Research and Knowledge) - http://www.spark.org.sg/
- Association for Persons with Special Needs - http://www.apsn.org.sg/

Adult-onset macular vitelliform dystrophy: A slightly different eye condition to Best disease. In adult-onset macular vitelliform the changes begin much later in life (around the age of 40 to 60) and they do not progress in the same way. The change to vision can be so small that often it is detected by chance through a routine eye test: There is less impact on vision than Best disease.
For more information, see the Genetics Home Reference website, a service of the US National Library of Medicine at
http://ghr.nlm.nih.gov/condition/vitelliform-macular-dystrophy

Advocacy: A process of supporting and enabling people to express their views, to access information and services, to find out about options and make decisions, and to secure their rights.

Advocate: In the disability context, this is someone, who may or may not themselves have disabilities, who speaks or intercedes for people with disabilities.

ALS, also known as **amyotrophic lateral sclerosis, motor neurone disease** or **Lou Gehrig's Disease:** A disease of the parts of the nervous system that control voluntary muscle movement. Nerve cells that control muscle cells are gradually lost, causing the muscles to become weak and eventually non-functional. Walking, talking, eating, hugging and even breathing become nearly impossible, although the mind stays sharp. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Alström Syndrome: A very rare recessively inherited genetic disorder which means that both parents will carry the gene although probably be unaffected themselves. Alström Syndrome is characterised principally by:

- Retinal Degeneration (inherited progressive eye disease)
- Sensorineural Hearing Loss (disorders of the cochlear part of the ear)
- Obesity and Insulin Resistance
- Nystagmus (wobbly eyes)

For more information, see the websites of

- Singapore Association of the Visually Handicapped - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

ALT attribute: Provides an alternate text for a computer user, if (s)he cannot view the image (for example because of a slow connection or because (s)he uses a screen reader/ is visually impaired. Here is an image for which the alt attribute is "In the sky flies a red flag with a white cross whose vertical bar is shifted toward the flagpole."

An alternative alt attribute value would be "The Danish flag". A visually impaired reader using a screen reader such as Orca will hear the alt text in place of the image. A text browser such as Lynx will display the alt text instead of the image. A graphical browser typically will display only the image, and will display the alt text only if the user asks it to show the image's properties or has configured the browser not to display images, or if the browser was unable to retrieve or to decode the image.

Alcohol-Related Neurodevelopmental Disorder (ARND): People with ARND (a Fetal alcohol spectrum disorder or FASD) might have intellectual disabilities and problems with behaviour and learning. They might have difficulties with math, memory, attention, judgment, and poor impulse control.

Alternative input devices: Allow individuals to control their computers through means other than a standard keyboard or pointing device. Examples include:

- Alternative keyboards—featuring larger- or smaller-than-standard keys or keyboards, alternative key configurations, and keyboards for use with one hand.
- Electronic pointing devices—used to control the cursor on the screen without use of hands. Devices used include ultrasound, infrared beams, eye movements, nerve signals, or brain waves.
- Joysticks—manipulated by hand, feet, chin, etc. and used to control the cursor on screen.
- Sip-and-puff systems—activated by inhaling or exhaling.
- Touch screens—allow direct selection or activation of the computer by touching the screen, making it easier to select an option directly rather than through a mouse movement or keyboard. Touch screens are either built into the computer monitor or can be added onto a computer monitor.
- Trackballs—movable balls on top of a base that can be used to move the cursor on screen. Useful for some people with mobility issues because it isolates pointer movement from button clicking.
- Wands and sticks—worn on the head, held in the mouth or strapped to the chin and used to press keys on the keyboard.

Alzheimer's Disease: A progressive degenerative disease of the brain that may involve a combination of symptoms including delirium, delusions, memory disturbance, depression and behavioural disturbances. There is no cure for it. It is not a normal part of the ageing process. For more information, see the ADA (Alzheimer's Disease Association) website - http://www.alz.org.sg/

Ambulant disabled person: Someone who is, either with or without personal assistance, and who may depend on prostheses (artificial limbs), orthoses (callipers), sticks, crutches or walking aids, able to walk on the level or negotiate suitably graded steps provided that convenient handrails are available.

Amputation: Removal of a limb or other appendage from the body.

Amputee: Someone who has had one or more limbs amputated.

Andersen-Tawil syndrome: One of a group of diseases, called inherited myopathies, that causes problems with the tone and contraction of skeletal muscles. It is considered more dangerous than the other periodic paralyses because of its potential to induce serious abnormalities in heart rhythm. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Apert syndrome: A genetic disorder characterised by the premature fusion of certain skull bones (craniosynostosis). This early fusion prevents the skull from growing normally and affects the shape of the head and face. In addition, a varied number of fingers and toes are fused together (syndactyly). Cognitive abilities in patients with Apert syndrome range from normal to mild or moderate intellectual disability. For more information, see the US National Institute of Health's Medline Plus Web site, produced by the National Library of Medicine at http://www.nlm.nih.gov/medlineplus/ency/article/001581.htm

Apraxia: A neurological condition characterised by loss of the ability to perform activities that a person is physically able and willing to do. There are several types of apraxia, including:

- Buccofacial or orofacial apraxia - the inability of a person to follow through on commands involving face and lip motions. These activities include

coughing, licking the lips, whistling, and winking. Also known as facial-oral apraxia

- Limb-kinetic apraxia - the inability to make precise movements with an arm or leg.
- Ideomotor apraxia - the inability to make the proper movement (e.g. waving) in response to a command
- Constructional apraxia - the inability to copy, draw, or build simple figures
- Ideational apraxia - the inability to do an activity that involves performing a series of movements in a sequence. A person with this condition could have trouble dressing, eating, or bathing. It is also known as conceptual apraxia.
- Oculomotor apraxia is characterized by difficulty moving the eyes
- Verbal apraxia is a condition involving difficulty coordinating mouth and speech movements. It is also known as apraxia of speech

For more information, see the US National Institute of Health's Medline Plus Web site, produced by the National Library of Medicine at http://www.nlm.nih.gov/medlineplus/ency/article/007472.htm

Arthritis: Refers to joint inflammation. There are many types of arthritis and the condition, which may be acute or chronic, ranges from mildly painful to severely disabling. The two most common forms of arthritis are osteoarthritis and rheumatoid arthritis.

- **Osteoarthritis** is caused by cartilage damage in the joints, whereby the padding protection has worn away, allowing bone to rub against bone. It is characterized by symptoms that usually develop gradually, including sore or stiff joints; stiffness after resting that improves with movement; pain that worsens after activity or toward the end of the day.
- **Rheumatoid arthritis** is caused by the body attacking its own tissues - an example of an autoimmune disease. The immune system attacks joints and other parts of the body, producing symptoms that vary by the individual, but often involving pain, fatigue and warm, swollen, inflamed-looking joints.

For more information, see the US website of the Arthritis Foundation at https://www.arthritis.org/

ASD / Autistic Spectrum Disorder: A relatively new term that recognises there are a number of sub-groups within the spectrum of autism. People with ASD

- find it difficult to understand and use non-verbal and verbal communication;
  Many are delayed in learning to speak and some never develop meaningful speech.
- have difficulty understanding social behaviour, which affects their ability to interact with others; They are literal thinkers and do not understand social context.
- find it difficult to think and behave flexibly, which may be shown in restricted, obsessional or repetitive activities. They can experience high levels of stress and anxiety in settings that do not meet their needs or when routines are changed. This can lead to inappropriate behaviour.
- in particular those with high functioning autism or Asperger's Syndrome, can have IQs well above average and can often achieve extremely highly. However they often retain particular social/expressive communication difficulties.
- may also experience over- or under-sensitivity to sounds, touch, tastes, smells, light or colours.

For more information, see the website of the Autism Resource Centre - http://www.autism.org.sg/main/index.php

Assistive technology: An umbrella term that includes assistive, adaptive and rehabilitative devices for people with disabilities. Assistive technology promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing, by providing enhancements to, or changing methods of interacting with, the technology needed to accomplish such tasks.

Below are descriptions of the various types of assistive technology products (Alternative input devices are listed separately):

- Braille embossers transfer computer generated text into embossed Braille output. Braille translation programs convert text scanned-in or generated via standard word processing programs into Braille, which can be printed on the embosser.
- CCTV (Closed Circuit Television) Magnifier or Video Magnifier - provides low vision aid for a full range of visual needs - generally a combination of a customised camera, mount arm for steady hands-free positioning of the camera, a viewing screen/monitor, lenses with the ability to zoom (sometime as great as 82x magnification), and viewing modes with lighting, colour, and contrast modes for optimal visual assistance. There is often a viewing platform, which allows easy positioning of the item, book, or image to be magnified.
- Closed captioning and subtitling allow people who are deaf/hard of hearing to view television or any visual display and understand what is being said. The words spoken are written across the bottom of the screen so the viewer can follow the dialogue. Closed captioning includes a description of non-speech elements, for example “[door slams]” or “[applause]”. Open captions are always in view and cannot be turned off: Closed captions can be turned on and off by the viewer.
- Descriptive Video / Described Video / Audio Description - a voiceover description of the program's key visual elements - narration occurs during natural pauses in dialogue - the blind or partially sighted viewer 'sees audibly' and engages with the story - TV shows, feature films, mobile media, visual media on the web or at museums can all be described.
- Keyboard filters / keyboard emulation - typing aids such as word prediction utilities and add-on spelling checkers that reduce the required number of keystrokes. Keyboard filters enable users to quickly access the letters they need and to avoid inadvertently selecting keys they do not want.
- Light signaler alerts monitor computer sounds and alert the computer user with light signals. This is useful when a computer user cannot hear computer sounds or is not directly in front of the computer screen. For

example, a light can flash alerting the user when a new e-mail message has arrived or a computer command has completed.

- On-screen keyboards provide an image of a standard or modified keyboard on the computer screen that allows the user to select keys with a mouse, touch screen, trackball, joystick, switch, or electronic pointing device. On-screen keyboards often have a scanning option that highlights individual keys that can be selected by the user. On-screen keyboards are helpful for individuals who are not able to use a standard keyboard due to dexterity or mobility difficulties.
- Reading tools and learning disabilities programs include software and hardware designed to make text-based materials more accessible for people who have difficulty with reading. Options can include scanning, reformatting, navigating, or speaking text out loud. These programs are helpful for those who have difficulty seeing or manipulating conventional print materials; people who are developing new literacy skills or who are learning English as a foreign language; and people who comprehend better when they hear and see text highlighted simultaneously.
- Refreshable Braille displays provide tactile output of information represented on the computer screen. A Braille "cell" is composed of a series of dots. The pattern of the dots and various combinations of the cells are used in place of letters. Refreshable Braille displays mechanically lift small rounded plastic or metal pins as needed to form Braille characters. The user reads the Braille letters with his or her fingers, and then, after a line is read, can refresh the display to read the next line.
- Screen enlargers, or screen magnifiers, work like a magnifying glass for the computer by enlarging a portion of the screen which can increase legibility and make it easier to see. Some screen enlargers allow a person to zoom in and out on a particular area of the screen.
- Screen readers are used to verbalize, or "speak," everything on the screen including text, graphics, control buttons, and menus into a computerized voice that is spoken aloud. In essence, a screen reader transforms a graphic user interface (GUI) into an audio interface. Screen readers are essential for computer users who are blind.

- Speech recognition or voice recognition programs, allow people to give commands and enter data using their voices rather than a mouse or keyboard. Voice recognition systems use a microphone attached to the computer, which can be used to create text documents such as letters or e-mail messages, browse the Internet, and navigate among applications and menus by voice.
- Text-to-Speech (TTS) or speech synthesizers receive information going to the screen in the form of letters, numbers, and punctuation marks, and then "speak" it out loud in a computerized voice. Using speech synthesizers allows computer users who are blind or who have learning difficulties to hear what they are typing and also provide a spoken voice for individuals who cannot communicate orally, but can communicate their thoughts through typing.
- Talking and large-print word processors are software programs that use speech synthesizers to provide auditory feedback of what is typed. Large-print word processors allow the user to view everything in large text without added screen enlargement.
- TTY/TDD conversion modems are connected between computers and telephones to allow an individual to type a message on a computer and send it to a TTY/TDD telephone or other Baudot equipped device.

Ataxia: A lack of muscle coordination which may affect speech, eye movements, the ability to swallow, walking, picking up objects and other voluntary movements. The term ataxia may also be used more broadly to indicate a lack of coordination in a physiological process, such as optic ataxia (usually part of Balint's syndrome which includes a lack of coordination between visual inputs and hand movements), or ataxic respiration (uncoordinated respiratory movements).

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Auditory: Relating to the sense of hearing or organs involved in hearing.

Auditory processing disorder (APD): Also known as Central auditory processing disorder (CAPD) – a disorder that affects the processing of auditory information within the brain. In its very broadest sense, APD refers to how the central nervous system (CNS) uses auditory information.

- APD is an auditory disorder that is not the result of higher-order, more global deficit such as autism, intellectual disabilities, attention deficits, or similar impairments.
- Not all learning, language, and communication deficits are due to APD.
- No matter how many symptoms of APD a child has, only careful and accurate diagnosis can determine if APD is, indeed, present.
- Although a multidisciplinary team approach is important in fully understanding the cluster of problems associated with APD, the diagnosis of APD can only be made by an audiologist.
- Treatment of APD is highly individualized. There is no one treatment approach that is appropriate for all children with APD.

Augmentative communication: The supplementation or replacement of speech through the use of aided or unaided techniques. Sign language, gestures, and fingerspelling are examples of unaided communication, whereas aided communication is associated with technology. An example of aided communication would be a computer-based system that supports verbal and written communication.

Aural: Of, relating to, or received by the ear.

B

Barrier: Obstacle preventing a person with disability from living independently, working, travelling and/or having access to buildings, services, forms and information.

Becker muscular dystrophy (BMD): One of nine types of muscular dystrophy, a group of genetic, degenerative diseases primarily affecting voluntary muscles. It is named after German doctor Peter Emil Becker, who first described this variant of Duchenne muscular dystrophy (DMD) in the 1950s. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Behaviour, emotional and social difficulties (BESD) or emotional and behavioural disorders (EBD): These terms describe a wide range of difficulties including children who are very withdrawn, children who are hyper-active, children with mental health problems, children who are unable to control their temper and those who are aggressive or disruptive.

Best disease (vitelliform macular degeneration): An eye condition that affects a tiny part of the retina at the back of your eye, which is called the macula. Best causes problems with your central vision, but does not lead to total loss of sight and is not painful. Best affects the vision you use when looking directly at something, for example when reading, looking at photos or watching television. Best may make this central vision distorted or blurry and, over a period of time, may cause a blank patch in the centre of your vision. Best will

not usually affect your peripheral (side) vision. For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

Birdshot retinochoroidopathy (also called **vitiliginous chorioretinitis**): Can be a severe and blinding disease if unrecognised or undertreated. The most common complaints are floaters and flashes, and blurry or hazy vision, sometimes described as looking through murky water. Colour and night vision are often decreased. For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

Birth defect: Use a neutral term such as “congenital condition” or rephrase the sentence using words like “disabled since birth” or “born with…” to avoid negative connotations.

Blindness: Total inability to see.

Body functions: The physiological functions of body systems (including psychological functions). World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.

Body structures: Anatomical parts of the body such as organs, limbs and their components. World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.

Braille: System of printing/writing for people who are blind – consists of raised dots that can be interpreted by touch, each dot or group of dots representing a letter, numeral, or punctuation mark.

C

Caregiver or carer: A person, generally a professional, a friend or a relative, who looks after someone with a disability.

Carnitine deficiency: One of a group of metabolic muscle diseases that interferes with the processing of food (in this case, fats) for energy production. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Carnitine palmityl transferase deficiency (CPT deficiency): One of a group of metabolic muscle diseases that interferes with the processing of food (in this case, fats) for energy production. Symptoms usually are brought on by prolonged and intense exercise, especially in combination with fasting, but may not appear for several hours after activity stops. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Central core disease/CCD/malignant hyperthermia susceptibility: One of the inherited myopathies, a group of diseases that causes problems with the tone and contraction of skeletal muscles. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/

- Muscular Dystrophy Association (USA) - http://mda.org/disease

Centronuclear myopathies: Mislocation of cell nuclei in the muscle fibres. Normally, these nuclei are arranged around the periphery of the fibre. In these disorders, many of them are centrally located instead.

- Myotubular myopathy is the most common and severe form of centronuclear myopathy, a type of inherited myopathy that causes problems with the tone and contraction of skeletal muscles.
- Autosomal centronuclear myopathies are relatively mild forms of centronuclear myopathy, a group of inherited myopathies that causes problems with the tone and contraction of skeletal muscles. They are called autosomal in reference to their inheritance pattern.

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Cerebral palsy (CP): A group of disorders that affect a person's ability to move and maintain balance and posture. CP is the most common motor disability in childhood. Cerebral means having to do with the brain. Palsy means weakness or problems with using the muscles. CP is caused by abnormal brain development or damage to the developing brain that affects a person's ability to control his or her muscles. For more information, see the website of the Cerebral Palsy Alliance of Singapore - http://cpas.org.sg/

Charcot-Marie-Tooth disease (CMT/ Peroneal Muscular Atrophy): A neurological disorder which causes damage to the peripheral nerves. These nerves carry signals from the brain and spinal cord to the muscles, and relay sensations, such as pain and touch, to the brain and spinal cord from the rest of the body. There are many different types and sub-types of CMT. This list is not comprehensive:

- CMT1-CMT2
- CMT4

- CMTX
- Congenital Hypomyelinating Neuropathy (CHN)
- Dejerine-Sottas Disease

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Charles Bonnet Syndrome: A phenomenon experienced by many people who lose their sight. They start seeing things they know are not real. These hallucinations may be simple patterns or vivid, detailed images of people or buildings. They are only visual, and do not involve hearing things or any other sensations. It is important to understand that they are caused by failing eyesight and not any mental health problem or dementia. People with Charles Bonnet syndrome are normally aware that the visions are not real, even if they are vivid. For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

Cholesteatoma: Condition of the middle ear that generally starts with a hole in the ear drum; usually in the upper part of the drum. This can become infected and the ear drum sheds dead skin which mixes with other debris in the ear to form a mass - called a cholesteatoma. If left untreated this mass can grow causing damage to different parts of the ear; leading to hearing loss, tinnitus and sometimes balance problems. In very severe cases it can cause meningitis or brain infections, although this is very rare. For more information, see the websites of

- Singapore Association for the Deaf (SADeaf) - http://www.sadeaf.org.sg/
- Action on Hearing Loss (formerly known as the RNID/Royal National Institute for Deaf People, UK) http://www.actiononhearingloss.org.uk/your-

hearing/about-deafness-and-hearing-loss/glossary/levels-of-hearing-loss.aspx

Clear floor space: The minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

Coats' disease: Also known as **Exudative Retinitis**, is an uncommon eye condition which affects the smaller blood vessels (capillaries) found in the retina – the light sensitive layer which lines the inside of your eye. Coats' disease can make these blood vessels weak and grow incorrectly causing them to leak fluid and blood under the retina. If left undiagnosed the retina can detach and sight will be completely lost in the affected eye. For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

Cochlear implant: Medical device implanted within the ear to restore hearing.

Cognitive behaviour therapy (CBT): A short-term treatment which can help you to change how you think (cognitive) and what you do (behaviour). Changes in these areas can help you cope with your day-to-day life. CBT is used to solve a variety of problems, from anxiety, sleeping difficulties and depression to drug and alcohol addiction.

Communication: Includes languages, display of text, Braille, tactile communication, large print, accessible multimedia as well as written, audio, plain-language, human-reader and augmentative and alternative modes, means and formats of communication, including accessible information and communication technology (UNCRPD, Art 2 – Definitions)

Communication disabilities: Any visual, hearing, or speech difficulties that limit a person's ability to communicate.

Computer keyboard keyguard: A plastic or metal shield that covers a keyboard with holes over the keys - specially designed for computer users with limited motor skills **-** it improves the selection of the required keys.

Congenital condition: Condition present at birth.

Congenital muscular dystrophy (CMD): Refers to a group of muscular dystrophies that become apparent at or near birth. Muscular dystrophies in general are genetic, degenerative diseases primarily affecting voluntary muscles. CMD results in overall muscle weakness with possible joint stiffness or looseness, depending on the type, CMD may involve spinal curvature, respiratory insufficiency, intellectual disabilities, learning disabilities, eye defects or seizures. CMD has its onset at or near birth, and progression varies with type. Many types are slowly progressive; some shorten life span. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Congenital myasthenic syndromes (CMS): Like myasthenia gravis (MG), CMS is characterized by weakness and fatigue resulting from problems at the neuromuscular junction — the place where nerve and muscle cells meet. But while MG is autoimmune, CMS is an inherited disease caused by defective genes. There are many types of CMS, grouped into three main categories named for the part of the neuromuscular junction that's affected: presynaptic (the nerve cell), postsynaptic (the muscle cell) or synaptic (the space in between). Depending on the type, symptoms of CMS vary from mild to severe, but generally include weakness, fatigue and ptosis (droopy eyelids).

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) http://www.mdas.org.sg/

- Muscular Dystrophy Association (USA) - http://mda.org/disease

Corneal dystrophies: Rare conditions in which the cornea is altered without the presence of any inflammation, infection or other eye disease. The clearness (transparency) of the cornea is affected and vision may or may not be disturbed. Most corneal dystrophies run in families so if a corneal dystrophy is discovered in one family member, all other adult family members should be examined. The most common types of corneal dystrophy are:

1. Meesman's dystrophy
2. Epithelial basement membrane
3. Reis-Bücklers'
4. Granular dystrophy
5. Macular dystrophy
6. Lattice dystrophy
7. Fuchs' endothelial dystrophy
8. Keratoconus

For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

Cross-disability: (Of a charity, NGO or other body) existing to serve people of differing disabilities. For example, Disabled People's Association is a cross-disability advocacy organisation and as such advocates for the rights of persons with disabilities in Singapore.

Crouzon syndrome: A genetic disorder characterised by the premature fusion of certain skull bones (craniosynostosis). This early fusion prevents the skull from growing normally and affects the shape of the head and face. Many features of Crouzon syndrome result from the premature fusion of the skull bones. Abnormal growth of these bones leads to wide-set, bulging eyes

(hypertelorism) and vision problems caused by shallow eye sockets; eyes that do not point in the same direction (strabismus); a beaked nose; short upper lip and an underdeveloped upper jaw. In addition, some with Crouzon syndrome may have dental problems and hearing loss, which is sometimes accompanied by narrow ear canals.

CPRD: Refers to the United Nations Convention on the Rights of Persons with Disabilities. Singapore signed the CRPD 30th November 2012 and ratified it on 18 July 2013. CRPD came into effect (for Singapore) on 18 August 2013.

Cytomegalovirus (CMV): Part of the herpes family of viruses. Once infected the virus is permanently carried, as no cure exists. If a woman becomes infected for the first time during pregnancy, there is a risk she may pass the infection to the unborn baby. Infection in the baby is known as congenital CMV and can cause hearing loss or deafness.

D

Deaf-Blindness (also referred to as **dual sensory impairment**): A combination of both visual and hearing impairments. A person with deaf-blindness cannot be accommodated by services focusing solely on visual impairments or solely on hearing impairments, so services must be specifically designed to assist individuals with deaf-blindness.

Debrancher enzyme deficiency (Cori or Forbes disease, glycogenosis type 3): This disease is a metabolic muscle disorder, a group of diseases that interferes with the processing of food (in this case, carbohydrates) for energy production. This disease principally affects the liver. It causes swelling of the liver, slowing

of growth, low blood sugar levels and, sometimes, seizures. For more information, see the websites of

- Muscular Dystrophy Association (Singapore): http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA): http://mda.org/disease

Dementia: A general loss of cognitive abilities characterised by memory loss and one or more of several other symptoms including severe speaking difficulties, reduced organisational and planning abilities, and problems recognising the significance of sights, sounds and other sensory stimuli. The medical profession acknowledges many forms of dementia; examples are boxer's dementia, post-traumatic dementia, presenile and senile dementia, and vascular dementia. Two main types of dementia are Alzheimer's disease and multi-infarct dementia. It is important to note that dementia is an illness and not normal ageing. For more information, see the ADA (Alzheimer's Disease Association) website - http://www.alz.org.sg/

Dermatomyositis (DM): One of the inflammatory myopathies, a group of muscle diseases that involves inflammation of the muscles or associated tissues, such as the blood vessels that supply the muscles. A myopathy is a muscle disease, and inflammation is response to cell damage. Another word for inflammatory myopathy is myositis. The myo root means muscle, and the itis root means inflammation; so a myositis is an inflammatory muscle disease. DM is distinct among the muscle diseases for its manifestation in the skin ("dermato"). A reddish or purplish rash, presumably due to inflammation of surface blood vessels, may occur over the face, neck and chest; on the shoulders and upper back, resembling a shawl; and/or on the elbows, knees and ankles. The skin may be scaly, dry and rough. Sometimes it looks like a sunburn. Other symptoms of DM include a condition called calcinosis, in which calcium is deposited just under the skin in hard, painful nodules, and panniculitis, inflammation of the fat lying just under the skin.

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/

- Muscular Dystrophy Association (USA) - http://mda.org/disease

Detectable warning: A standardised surface feature built in or applied to walking surfaces or other elements to warn people with low (or no) vision of hazards on a circulation path.

Developmental disability / developmental: General term for a number of conditions involving mental and/or physical disabilities arising before the age of 18 years.

Developmental Co-ordination Disorder (DCD): A delay in acquiring gross motor (large movements of the limbs and body) or fine motor (smaller movements, eg of fingers) skills.

Digital divide: A term referring to the gaps in access to information and communications technology (ICT) between individuals, groups, countries and areas. The digital divide affects people with disabilities more than any other group, since they face intrinsic problems of accessibility ranging from a fundamental lack of training in ICT, to physical barriers, the lack of assistive computer technology and inaccessible multimedia design

Disability: The result of the interaction between persons with impairments and attitudinal and environmental barriers. Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, when in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.

Disability confident: Refers to an organisation that

- adopts employment policies that ensure people with disabilities are included
- considers the needs of people with disabilities when designing products and services

The phrase “Disability Confident” was first used in a UK campaign in 2013. It is a term describing the ethos of a corporate body and not the attitude of an individual person with disabilities.

Disability Culture: Describes the group identity and common history of discrimination shared by people with disabilities which have generated art, music, literature and other expressions of their lives and experience of disability.

Disability etiquette: Proposes recommendations regarding the interaction of non-disabled people with people with disabilities, both in terms of physical contact and the use of language/terminology.

Disability Proofing: The basic tool of inclusion, aims to ensure that people with disabilities participate (and their requirements considered) in the planning and development of all structures, policies and practices. The key stages include:

- raising awareness of activities and outcomes
- auditing relevant Information consulting with people with disabilities
- impact assessment activities

Disability Access Symbols: Intended advertise access services to customers, audiences, staff, etc. Advertisements, newsletters, conference and program brochures, membership forms, building signage, floor plans and maps are examples of material that might display these symbols.

Any language accompanying the symbols should focus on the accommodation or service, not on who uses it. For example, “Ramped Entrance” may accompany the wheelchair symbol. This is important because not only do individuals in wheelchairs use ramps, but so do people with baby carriages, luggage, packages, etc. Language that fosters dignity is important too. For example, “Reserved Parking” may be used with the wheelchair symbol to indicate that parking spaces designated for people with disabilities.

Access for individuals who are blind or have low vision: This symbol may be used to indicate access for people who are blind or have low vision, including: a guided tour, a path to a nature trail or a scent garden in a park; and a tactile tour or a museum exhibition that may be touched.

Symbol for accessibility: The wheelchair symbol should only be used to indicate access for individuals with limited mobility including wheelchair users. For example, the symbol is used to indicate an accessible entrance, bathroom or that a phone is lowered for wheelchair users. Remember that a ramped entrance is not completely accessible if there are no curb cuts, and an elevator is not accessible if it can only be reached via steps.

Audio description: A service for persons who are blind or have low vision that makes the performing arts, visual arts, television, video and film more accessible. Description of visual elements is provided by a trained Audio Describer through the Secondary Audio Program (SAP) of televisions and monitors equipped with stereo sound.

Telephone typewriter (tty): This device is also known as a text telephone (TT), or telecommunications device for the deaf (TDD). TTY indicates a device used with the telephone for communication with and between deaf, hard of hearing, speech impaired and/or hearing persons.

Volume control telephone: This symbol indicates the location of telephones that have handsets with amplified sound and/or adjustable volume controls.

Assistive listening systems: These systems transmit amplified sound via hearing aids, headsets or other devices. They include infrared, loop and FM systems. Portable systems may be available from the same audiovisual equipment suppliers that service conferences and meetings.

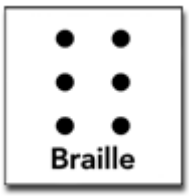
Sign language interpretation: The symbol indicates that Sign Language Interpretation is provided for a lecture, tour, film, performance, conference or other program.

Accessible print (18 pt. Or larger): The symbol for large print is “Large Print” printed in 18 pt. or larger text. In addition to indicating that large print versions of books, pamphlets, museum, guides and theatre programs are available, you may use the symbol on conference or membership forms to indicate that print materials may be provided in large print. Sans serif or modified serif print with good contrast is important, and special attention should be paid to letter and word spacing.

The information symbol: The most valuable commodity of today’s society is information; to a person with a disability it is essential. For example, the symbol may be used on a signage or on a floor plan to indicate the location of the information or security desk, where there is more specific information or materials concerning access accommodations and services such as “LARGE PRINT” materials, audio cassette recordings of materials, or sign interpreted tours.

Closed captioning (cc): This symbol indicates a choice for whether or not to display captions for a television program or videotape. TV sets that have a built-in or a separate decoder are equipped to display dialogue for programs that are captioned when selected by the viewer. Also, videos that are part of exhibitions may be closed captioned using the symbol with instruction to press a button for captioning.

Opened captioning (oc): This symbol indicates that captions, which translates dialogue and other sounds in print, are always displayed on the videotape, movie or television program. Open captioning is preferred by many including deaf and hard-of-hearing individuals, and people whose second language is English. In addition, it is helpful in teaching children how to read and in keeping sound levels to a minimum in museums and restaurants.



Braille symbol: This symbol indicates that printed material is available in Braille, including exhibition labelling, publications and signage.

Ramps: Ramps are essential for wheelchair users if elevators or lifts are not available to connect different levels. However, some people who use walking aids have difficulty with ramps and prefer stairs. Although ramp slopes between 1:16 and 1:20 are preferred the rule of thumb for constructing a ramp which is 12 inches of length for every inch of rise. The ability to manage an incline is related to both its slope and its length. Wheelchair users with disabilities affecting their arms or with low stamina have serious difficulty using inclines. In fact, many ambulatory people and most people who use wheelchairs can manage a slope of even 1:16.

Deaf / hard of hearing / hearing impaired / hearing loss: The deaf and hard of hearing community is diverse. How people “label” or identify themselves is

personal and may reflect identification with that community, the degree to which they can hear, or the relative age of onset. Some people believe that the term “people with hearing loss” is inclusive and efficient. However, some people who were born deaf or hard of hearing do not think of themselves as having lost their hearing.

Over the years, the most commonly accepted terms in the deaf community have come to be “deaf” (total inability to hear) and “hard of hearing” (partial loss of hearing). The term “hearing-impaired”, although meant well and regarded by those outside the deaf community as politically correct, is not accepted or used by many deaf and hard of hearing people. The term “hearing-impaired” is viewed as negative, establishing the standard as “hearing” and anything different as “impaired” or substandard. The terms “hearing impaired” and “hearing loss” are best used as medical (e.g. describing levels of hearing loss) or technical terms (e.g. when discussing the CRPD or relevant legislation).

Discrimination: Refers to any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. It includes all forms of discrimination, including denial of reasonable accommodation (CRPD, Art 2 – Definitions)

Distal muscular dystrophy (DD): Muscular dystrophies in general are a group of genetic, degenerative diseases primarily affecting voluntary muscles. DD is a class of muscular dystrophies that affect distal muscles, which are those of the lower arms, hands, lower legs and feet. Types of DD include:

- Distal myopathy with vocal cord and pharyngeal weakness
- Finnish (tibial) distal myopathy
- Gowers-Laing distal myopathy
- Hereditary inclusion-body myositis (myopathy) type 1 (HIBM1)
- Miyoshi distal myopathy
- Nonaka distal myopathy

- Welander distal myopathy

For more information, see the websites of
- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Diversity: Recognising and valuing differences between individuals and groups of people - an important concept in terms of the integration of people with disabilities into society.

Down's syndrome: A congenital (and usually chromosomal) disorder characterised by a flattened facial profile, moderate to severe mental disability and short stature. It is a lifelong condition and occurs because some babies' cells contain an extra chromosome 21.

For more information, see the websites of
- Down Syndrome Association - http://www.downsyndrome-singapore.org/
- Association for Persons with Special Needs - http://www.apsn.org.sg/

DSM / diagnostic and statistical manual of mental disorders: Published by the American Psychiatric Association. The manual offers a common language and standard criteria for the classification of mental disorders. It is used by clinicians, researchers, psychiatric drug regulation agencies, health insurance companies, pharmaceutical companies, the legal system, and policy makers. The DSM is now in its fifth edition, DSM-5, published on May 18, 2013.

Duchenne muscular dystrophy (DMD): A genetic disorder characterised by progressive muscle degeneration and weakness. It is one of nine types of muscular dystrophy. DMD is caused by an absence of dystrophin, a protein that helps keep muscle cells intact. For more information see the websites of
- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Dysarthria: A condition in which problems effectively occur with the muscles that help produce speech, often making it very difficult to pronounce words. It is unrelated to any problem with understanding cognitive language.

Dyscalculia: A specific learning difficulty typically presenting itself in one or more of the main areas of Math / numeracy – namely use of symbols, acquiring arithmetical skills particularly those requiring use of working memory, and spatial understanding. On the surface, these often relate to basic concepts such as: telling the time, calculating prices and handling change, and measuring and estimating things such as temperature and speed.

Dyslexia / dyslexic tendencies: A specific learning difficulty which mainly affects the development of literacy and language related skills. Areas of difficulty include: working memory, organisation, reading comprehension, handwriting, punctuation, concentration, sequencing words and numbers. Students with dyslexia may also mispronounce common words or reverse letters and sounds in words.

Dyslexia Bands: A-F
A - no signs of dyslexia
B/C – mild dyslexia
D/E - moderate
E/F – severe

Dyspraxia: A specific learning difficulty which impairs the ability to coordinate and organise movement. Areas of difficulty: development of gross and fine motor skills, balance and coordination, language development, working memory, handwriting, organisation, concentration, sequencing words and numbers.

Dystonia: A neurological movement disorder. Faulty signals from the brain cause muscles to spasm and pull on the body incorrectly. This forces the body

into twisting, repetitive movements or abnormal postures. For more information, see The Dystonia Society website - http://dystonia.org.uk/

E

Early detection: Discovery or diagnosis of a disability in the womb, shortly after birth or through screening in school.

Early intervention: A multidisciplinary and coordinated process of assessment and therapy designed to address identified developmental delays and/or disabilities of the child.

Echolalia: The constant repeating or copying of what has been said by others. People with autism and Tourette syndrome commonly exhibit echolalia.

Educational Psychologist: An EP provides detailed assessments for students with special educational needs. The assessments include recommendations for differentiating school work to meet the student's needs. An EP may also provide on-going support in the form of one-one or group work with students or consultations with teaching staff and parents.

Emery-Dreifuss muscular dystrophy (EDMD / Hauptmann-Thanheuser MD): One of nine types of muscular dystrophy, a group of genetic, degenerative diseases primarily affecting voluntary muscles. EDMD usually shows itself by age 10 and is characterised by wasting and weakness of the muscles that make up the shoulders and upper arms and the calf muscles of the legs. Another prominent aspect of EDMD is the appearance of contractures (stiff joints) in the elbows, neck and heels very early in the course of the disease. Finally, and very importantly, a type of heart problem called a conduction block is a

common feature of EDMD and requires monitoring. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Enlarged vestibular aqueduct: The vestibular aqueduct and the inner ear are housed in the temporal bone in the skull. The vestibular aqueduct is a narrow, bony canal containing the endolymphatic duct, which carries a fluid called endolymph from the inner ear to the endolymphatic sac. Endolymph is essential for normal inner ear function. Most people with enlarged vestibular aqueducts will have some degree of sensorineural (permanent) hearing loss and it can get worse over time. It can occur on its own or as part of a syndrome, such as Pendred syndrome and branchio-oto-renal (BOR) syndrome. Enlarged vestibular aqueducts can also be linked to balance problems.

For more information, see the websites of

- Singapore Association for the Deaf (SADeaf) http://www.sadeaf.org.sg/
- Action on Hearing Loss (formerly known as the RNID/Royal National Institute for Deaf People, UK) http://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/glossary/levels-of-hearing-loss.aspx

Environmental barrier: Obstacle preventing a person with a disability from travelling and/or having access to buildings. An example is a building with steps as the sole means of entry, which would prevent people in wheelchairs from visiting that building.

Environmental factors: The physical, social and attitudinal environment in which people live and conduct their lives. These are either barriers to or facilitators of the person's functioning. World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.

Equalisation: The process whereby people with disabilities take their rightful place in society alongside non-disabled people, brought about through many means, including legislation, promotion of barrier-free environments, community-based rehabilitation services, education and training and employment.

Equalisation of opportunities: (As defined in 1982 by the United Nations World Programme of Action concerning Disabled Persons). It refers to a process through which the various systems of society and the environment, such as services, activities, information and documentation, are made available to all, particularly to persons with disabilities.

Equality: Disabled people should

- have access to education, employment, goods, services, facilities, transport and resources
- enjoy participation in any area of economic, social, political, cultural and civil life on an equal basis with any other person in society.

Exclusion: The process in which individuals or entire communities of people are systematically blocked from (or denied full access to) various rights, opportunities and resources that are normally available to members of a different group, and which are fundamental to social integration within that particular group (e.g., housing, employment, healthcare, civic engagement, democratic participation, and due process. The outcome of such exclusion is that affected individuals or communities are prevented from participating fully in the economic, social, and political life of the society in which they live. In the context of education, exclusion refers to the disciplinary sanction imposed as a result of a breach of a school's behaviour policy.

F

Facioscapulohumeral muscular dystrophy (FSHD): A genetic muscle disorder in which the muscles of the face, shoulder blades and upper arms are among the most affected. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Fetal alcohol spectrum disorders (FASDs): A group of conditions that can occur in a person whose mother drank alcohol during pregnancy. These effects can include physical problems and problems with behaviour and learning. Often, a person with an FASD has a mix of these problems. For more information, see the US website for the Centers for Disease Control and Prevention - http://www.cdc.gov/

Fetal Alcohol Syndrome (FAS): FAS represents the severe end of the FASD spectrum. Fetal death is the most extreme outcome from drinking alcohol during pregnancy. People with FAS might have abnormal facial features, growth problems, and central nervous system (CNS) problems. People with FAS can have problems with learning, memory, attention span, communication, vision, or hearing. They might have a mix of these problems. People with FAS often have a hard time in school and trouble getting along with others. For more information, see the US website for the Centers for Disease Control and Prevention - http://www.cdc.gov/

Fetal anti-convulsant syndrome (FACS): Can occur when a mother has to take epilepsy medications (anti-convulsants) during pregnancy. A child with FACS may have a delay in developing speech and language or may have difficulties

with social interaction, memory and attention. Some may also have other conditions, such as spina bifida.

Fragile X syndrome (FXS): Also known as Martin–Bell syndrome, or Escalante's syndrome (more commonly used in South American countries), FXS is a genetic disorder. It results in a spectrum of intellectual disabilities ranging from mild to severe as well as physical characteristics such as an elongated face, large or protruding ears, and large testes (macroorchidism), and behavioral characteristics such as stereotypic movements (e.g. hand-flapping), and social anxiety.

Friedreich's ataxia (FA): A neuromuscular disease that mainly affects the nervous system and the heart. FA's major neurological symptoms include muscle weakness and ataxia, a loss of balance and coordination. FA mostly affects the spinal cord and the peripheral nerves that connect the spinal cord to the body's muscles and sensory organs. FA also affects the function of the cerebellum, a structure at the back of the brain that helps plan and coordinate movements. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Functioning: An umbrella term for body functions, body structures, activities and participation. It denotes the positive aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors). World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.

G

Glaucoma: The name given to a group of eye conditions which cause optic nerve damage and can affect your vision.There are four main types of glaucoma:

1. Primary open angle glaucoma (POAG) or chronic
2. Acute glaucoma
3. Secondary glaucoma Developmental or congenital glaucoma

For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website http://www.rnib.org.uk/

Global Developmental Delay (GDD): The general term used to describe a condition that occurs during the developmental period of a child between birth and 18 years. It is usually defined by the child not having reached two or more traditional milestones in areas of development (motor skills, speech and language, cognitive skills and social and emotional skills).

GUI / Graphical User Interface: A type of interface that allows users to interact with electronic devices through graphical icons and visual indicators as opposed to text-based interfaces, typed command labels or text navigation. GUIs were introduced in reaction to the perceived steep learning curve of command-line interfaces (CLIs) which require commands to be typed on the keyboard.

H

Handrail: A rail designed to be grasped by the hand so as to provide stability or support - commonly used while ascending or descending stairways and escalators in order to prevent injurious falls. Other applications include bathroom handrails—which help to prevent falls on slippery, wet floors. Handrails are typically supported by posts or mounted directly to walls.

Harassment: Occurs when the actions of a person violate the dignity of another person or create an intimidating, hostile, degrading, humiliating or offensive environment for him/her. The actions may include;

- spoken or written words or abuse
- imagery, graffiti
- physical gestures
- facial expression
- mimicry, jokes, pranks.

Hearings Aids, Types of: *An overview of the different options available*

<u>Analogue or digital</u>

Analogue and digital hearing aids look very similar, but they process sound differently.Analogue aids amplify electronic signals, while digital aids use a tiny computer to process sound. This means it is possible to customise the aid to suit your hearing loss very precisely. Many digital aids can be programmed with different settings for different sound environments, for example a quiet living room or a crowded restaurant. Some even switch settings automatically to suit the environment.

Digital hearing aids are designed to reduce background noise, which makes listening in noisy places more comfortable. They are also less likely to 'whistle', or give feedback.

Behind the ear (BTE) hearing aids

BTE aids have an earmould that fits snugly inside your ear, while the rest of the aid rests behind your ear. Some models have twin microphones, which let you switch between all-round sound and a more directional setting that helps you focus on what you want to hear in noisy places. BTE hearing aids with 'open ear fitting' have a small, soft earpiece at the tip of the tubing instead of an earmould. This type of fitting can be less noticeable than an earmould but is only suitable if your hearing loss is mild or moderate. It can give you a very natural sound.

Receiver in the ear (RITE) hearing aids

Receiver in-the-ear (RITE) (or loudspeaker in-the-ear) aids are often smaller than BTE aids because some part of the device sits inside the ear. Like open ear BTEs, they can be easier to put in than an earmould if you find fiddly tasks awkward.There are different RITE hearing aids for different levels of hearing loss. If your hearing loss is severe, you may need a type where the receiver sits in an earmould. In the ear (ITE) hearing aids: These fit entirely into your ear. The working parts are either in a small compartment clipped to the earmould or inside the moulded part itself. ITE aids tend to need repairing more often than BTE aids.

Completely in the canal (CIC) hearing aids

These are even smaller than ITE aids, so they are less visible. They are unlikely to be suitable if you have severe hearing loss or frequent ear infections.

Body worn hearing aids

These have a small box that you clip to your clothes or put in your pocket. This is connected by a lead to the earphone. Some people find the controls less

fiddly than those on smaller hearing aids. Some body-worn aids are very powerful.

Bone conduction hearing aids

These are for people with conductive hearing loss or people who can't wear conventional hearing aids. They deliver sound through the skull via vibrations. For more information, see the websites of

- Singapore Association for the Deaf (SADeaf) - http://www.sadeaf.org.sg/
- Action on Hearing Loss (formerly known as the RNID/Royal National Institute for Deaf People, UK) - http://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/glossary/levels-of-hearing-loss.aspx

Hearing loss, Levels of: The term 'hearing loss' to cover all kinds of deafness. There are four different levels of hearing loss, defined by the quietest sound that people are able to hear, measured in decibels (dB).

1. Mild hearing loss:

Quietest sound: 25 - 39 dB.
Can sometimes make following speech difficult, particularly in noisy situations.

2. Moderate hearing loss:

Quietest sound: 40 - 69 dB.
May have difficulty following speech without hearing aids.

3. Severe hearing loss:

Quietest sound: 70 - 94 dB.
Usually need to lipread or use sign language, even with hearing aids.

4. Profound deafness:

Quietest sound: 95 dB+

Usually need to lipread or use sign language.

For more information, see the websites of

- Singapore Association for the Deaf (SADeaf) - http://www.sadeaf.org.sg/
- Action on Hearing Loss (formerly known as the RNID/Royal National Institute for Deaf People, UK) - http://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/glossary/levels-of-hearing-loss.aspx

Hemifacial Microsomia / Goldenhar: An underdevelopment of the tissues on one side of the face. Also known as Goldenhar syndrome when eye involvement is present. This condition results in an asymmetry of the face with malformation of the ear and an underdeveloped jaw on the affected side. The functional challenges of this condition include an abnormal bite, hearing loss and related psychosocial issues.

Hydrocephalus: Refers to an abnormal accumulation of fluid (cerebrospinal fluid) within cavities, called ventricles, inside the brain. Hydrocephalus can be congenital, caused by complex genetic and environmental factors, or acquired from spina bifida, intraventricular hemorrhage, head trauma, meningitis, tumors and cysts. Individuals with hydrocephalus often experience mental and physical impairments and a variety of health problems.

Hyperactivity: Excessive increased muscular activity.

Hyperacusis: A condition that arises from a problem in the way the brains central auditory processing centre perceives noise. It can often lead to pain and discomfort. People with hyperacusis have difficulty tolerating everyday sounds which do not seem loud to others, such as the noise from running water from a tap, riding in a car, walking on leaves, dishwasher, fan on the refrigerator, shuffling papers. Although all sounds may be perceived as too loud, high frequency sounds may be particularly troublesome.

Hyperlexia: An intense fascination with letters or numbers or, in younger people, an ability to read far beyond their age. People with hyperlexia may, nevertheless, have difficulty understanding verbal language and interacting and socialising with others.

Hyperthyroid myopathy: A muscle disease caused by overproduction of thyroid hormones from the thyroid gland. This disease commonly involves weakness and wasting of muscles around the shoulders and sometimes the hips. Some people with hyperthyroid myopathy develop Grave's disease, damage to muscles that control movement of the eye and eyelids, which can lead to vision loss. Others develop thyrotoxic periodic paralysis, which involves temporary but profound attacks of muscle weakness in association with low serum potassium. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Hypothyroid myopathy: A muscle disease caused by deficient hormone production from the thyroid gland. The most common symptoms include weakness around the hips and sometimes the shoulders, and a slowing of reflexes.

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Impairment: Problems in body function and structure such as significant deviation or loss. World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013. (Due to its negative connotations, it is best to avoid this controversial word and its derivatives, although there is no agreement about the word even among people with disabilities and associations representing them.)

Inclusion:

- addresses first and foremost, the need for cultural transformation
- advocates that any person with a disability should be accommodated freely, openly and without pity, without restrictions or limitations of any kind
- emphasises universal design for policy-oriented physical accessibility issues

Inclusion-Body Myositis (IBM): One of the inflammatory myopathies, a group of muscle diseases that involves inflammation of the muscles or associated tissues, such as the blood vessels that supply the muscles. A myopathy is a muscle disease, and inflammation is response to cell damage. Another word for inflammatory myopathy is myositis. The *myo* root means muscle, and the *itis* root means inflammation; so a myositis is an inflammatory muscle disease. Inflammatory cells invading muscle tissues is one characteristic of IBM, but the disease is distinct from other inflammatory myopathies in that muscle degeneration also occurs. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Inclusive education: The education of children with disabilities side-by-side with non-disabled children, rather than in segregated education institutions such as special schools. There is a growing preference for inclusive education. For more information, please the websites of:

- Enabling Eduction Network – http://www.eenet.org.uk/what_is_ie.php
- UNESCO – http://www.unesco.org and in particular http://www.unescobkk.org/education/inclusive-education/what-is-inclusive-education/

Independent Living: This concept involves the belief that people with disabilities should have the same choice, control and freedom over their lives as other people in society. This means:

- Greater choice and control over any assistance needed to go about everyday life
- Access to housing, transport, health, social care, education, employment and other services and opportunities
- Participation in family, community and civic life

Independent Living is a reaction to the tendency in the past of grouping people with disabilities into specialised homes, which alienates them from the community.

Inherited and endocrine myopathies: Myopathies are diseases that cause problems with the tone and contraction of skeletal muscles (muscles that control voluntary movements.) Inherited myopathies have a genetic basis, meaning they can be passed from parent to child. Endocrine myopathies are not inherited and result from abnormal activity of the thyroid gland. Myopathies can cause weakness or stiffness in all of the body's voluntary muscles. Muscles support the body's posture so muscle weakness can lead to skeletal deformities.

Inherited myopathies include:

- central core disease/malignant hyperthermia susceptibility
- centronuclear myopathies, including myotubular myopathy
- myotonia congenita (Thomsen disease and Becker type)
- nemaline myopathy (rod body disease)
- paramyotonia congenita (Eulenberg disease)
- periodic paralyses (hyperkalemic, hypokalemic, Andersen-Tawil syndrome)

Endocrine myopathies include:
- hyperthyroid myopathy
- hypothyroid myopathy

For more information, see the websites of
- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Integration: The inclusion, participation and acceptance of people with disabilities in society at large.

Intelligence Quotient / IQ: A number arrived at by intelligence tests intended as a measure of intelligence.

Irlen Syndrome: A specific learning difficulty – commonly linked with dyslexia - that affects the way the brain processes visual information. This typically presents itself as an inability to read fluently and with ease, sensitivity to light and sensitivity to colour combinations (varying according to each individual).

J

Juvenile macular degeneration: Macular degeneration affecting younger people. Whether it is present at birth or develops later, it is almost always caused by an inherited genetic disorder, such as:

- Stargardt's disease – the most common cause of juvenile macular degeneration, which can start in childhood or early adulthood.
- Best's disease (also known as Best's vitelliform macular dystrophy).
- Sorsby's dystrophy – often begins between the ages of 30 and 40 and causes some loss of vision.

For more information, visit the UK website of The Macular Society at http://www.macularsociety.org/

K

King Kopletzky syndrome: Also known as Obscure Auditory Dysfunction and is an example of Auditory Processing Disorder (APD). An auditory disability, where an individual has difficulty hearing speech in the presence of background noise, but hearing test results present normal hearing thresholds.

Kyphosis: Medical term for greatly increased convex curvature of the spine. “A person with a spinal disability” is an acceptable way to refer to someone with such a condition.

L

Lactate dehydrogenase deficiency (glycogenosis type 11): A metabolic muscle disorder, a group of diseases that interferes with the processing of food (in this case, carbohydrates) for energy production. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Lambert-Eaton myasthenic syndrome (LEMS): An autoimmune disease — a disease in which the immune system attacks the body's own tissues. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Landau-Kleffner Syndrome (Also called **acquired epileptic aphasia):** An epileptic syndrome of childhood characterised by partial or generalised seizures and other symptoms. For more information, see the website of the Singapore Epilepsy Foundation http://www.epilepsy.com.sg/

Language: Includes spoken and signed languages and other forms of non spoken languages (CRPD, Art 2 – Definitions)

Large-print (also **large-type** or **large-font):** Refers to the formatting of a book or other text document in which the typeface (or font), and sometimes the medium, are considerably larger than usual, to accommodate people who have low vision. Most ordinary print is six to ten points in height (about 1/16 to 1/8 of an inch). Large type is fourteen to eighteen points (about 1/8 to 1/4 of an inch) and sometimes larger. The format of large print books is also proportionately larger (usually 8 1/2 x 11 inches).

Learning disability (also known as **intellectual disability** or **learning difficulty**):

- a significantly reduced ability to understand new or complex information or to learn new skills;
- a reduced ability to cope independently;
- an impairment that started before adulthood, with a lasting effect on development.

There is a wide range of different abilities:

Profound – People with profound intellectual and multiple disabilities, or profound and multiple learning disabilities (PMLD) have an intelligence quotient (IQ) estimated to be under 20 and therefore they have severely limited understanding. In addition, they may have multiple disabilities, which can include impairments of vision, hearing and movement as well as other challenges such as epilepsy and autism. Most people in this group need support with mobility and many have complex health needs requiring extensive support. People with profound intellectual and multiple disabilities may have considerable difficulty communicating and characteristically have very limited understanding. Many people express themselves through non-verbal means, or at most through using a few words or symbols. In addition some people need support with behaviour that is seen as challenging, such as self-injury.

Severe – People with a severe learning disability often use basic words and gestures to communicate their needs. Many need a high level of support with

everyday activities such as cooking, budgeting, cleaning and shopping, but many can look after some if not all of their own personal care needs. Some people have additional medical needs and some need support with mobility issues.

Moderate – People with a moderate learning disability are likely to have some language skills that mean they can communicate about their day to day needs and wishes. People may need some support with caring for themselves, but many will be able to carry out day to day tasks with support.

Mild – A person who is said to have a mild learning disability is usually able to hold a conversation, and communicate most of their needs and wishes. They may need some support to understand abstract or complex ideas. People with mild learning disabilities are often able to independently care for themselves and do everyday tasks. They usually have some basic reading and writing skills. People with a mild learning disability quite often go undiagnosed. Most people still need appropriate support with tasks such as budgeting and completing forms.

Limb-girdle muscular dystrophy (LGMD): Refers to a group of disorders affecting voluntary muscles, mainly those around the hips and shoulders. The shoulder girdle is the bony structure that surrounds the shoulder area, and the pelvic girdle is the bony structure surrounding the hips. Collectively, these are called the limb girdles, and it is the muscles connected to the limb girdles that are the most affected in LGMD. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Lip-reading / visual hearing: The ability to understand someone's speech by observing their lip movements.

M

Mainstreaming disability: Describes a strategy for making the concerns and experiences of people with disabilities an integral part of the design, implementation, monitoring and evaluation of policies and programmes. The goal is to achieve disability equality in all political, economic and societal areas so that people with disabilities benefit equally. This requires that all measures, programmes, services and practices are assessed to determine their impact on the participation of people with disabilities, instead of simply assuming their neutrality.

Marfan syndrome: A genetic disorder of connective tissue that can affect the eyes, skeleton, lungs, heart and blood vessels - and may be life-threatening. The effects of Marfan syndrome vary between individuals, some people only being mildly affected. For more information, see the US website of The Marfan Foundation at http://www.marfan.org/

Means of egress: A continuous and unobstructed way of exit travel from any point in a building or facility to a public way. A means of egress comprises vertical and horizontal travel and may include intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits, courts, and yards. An accessible means of egress is one that complies with guidelines for use by people with disabilities and does not include stairs, steps or escalators. Areas of rescue assistance or evacuation elevators may be included as part of accessible means of egress.

Mental disability: Refers to any illness or disorder of the mind that: has significant psychological or behavioural manifestations, is associated with

painful or distressing symptoms, and impairs an individual's level of functioning in certain areas of life. There are several different types of mental illness with differing levels of severity. The cause may be genetic, congenital, or as a result of physical, psychological, chemical, environmental, or social factors. People with mental disabilities often face stigmatisation due to a general lack of understanding about their disability and the barriers they face. This is often called an invisible disability due to it not being immediately apparent. Many people with this disability do not like to make the fact they have a mental disability public due to the stigmatisation they are likely to face. This is especially the case when seeking employment.

Metabolic diseases of muscle: Can affect all of the body's voluntary muscles, such as those in the arms, legs and trunk. Some also can involve increased risk of heart or liver disease, and the effects can damage the kidneys. Each of these disorders is caused by a different genetic defect that impairs the body's metabolism (the collection of chemical changes that occur within cells during normal functioning).

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Ménière's disease: A long term, progressive condition affecting the balance and hearing parts of the inner ear. Symptoms are acute attacks of vertigo (severe dizziness), fluctuating tinnitus, increasing deafness, and a feeling of pressure in the ear. For more information, visit the US website of National Institute on Deafness and Other Communication Disorders (NIDCD) at http://www.nidcd.nih.gov/health/balance/pages/meniere.aspx

Microcephaly: A rare neurological condition in which an infant's head is significantly smaller than the heads of other children of the same age and sex. Microcephaly can be caused by a variety of genetic and environmental factors. There is a wide range of effect and some children will have normal speech and

academic ability, however most will have a moderate learning difficulty or delay, particularly with speech and spatial ability.

For more information visit the US website of the National Institute of Neurological Disorders and Stroke (NINDS) at http://www.ninds.nih.gov/disorders/microcephaly/microcephaly.htm

Micro and Anophthalmia: Refers to people who were born without eyes or with underdeveloped eyes: Microphthalmia (small eyes), Anophthalmia (no eyes) and/or **Coloboma** (cleft of the eye). For more information visit the Genetics Home Reference website, a service of the US National Library of Medicine at http://ghr.nlm.nih.gov/condition/microphthalmia

Mitochondrial Myopathies (MM): Just as some diseases are named for the part of the body they affect (like heart disease), mitochondrial diseases are so named because they affect a specific part of the cells in the body. Specifically, mitochondrial diseases affect the mitochondria — tiny energy factories found inside almost all our cells. A mitochondrial disease that causes prominent muscular problems is called a mitochondrial myopathy (myo means muscle, and pathos means disease), while a mitochondrial disease that causes both prominent muscular and neurological problems is called a mitochondrial encephalomyopathy (encephalo refers to the brain).

The nine most common mitochondrial myopathies and encephalomyopathies are:

1. Kearns-Sayre syndrome (KSS)
2. Leigh syndrome (subacute necrotizing encephalomyopathy) and maternally inherited Leigh syndrome (MILS)
3. Mitochondrial DNA depletion syndrome (MDS)
4. Mitochondrial encephalomyopathy, lactic acidosis and strokelike episodes (MELAS)
5. Mitochondrial neurogastrointestinal encephalomyopathy (MNGIE)
6. Myoclonus epilepsy with ragged red fibers (MERRF)

7. Neuropathy, ataxia and retinitis pigmentosa (NARP)
8. Pearson syndrome
9. Progressive external ophthalmoplegia (PEO)

For more information see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Mobility aid: A device designed to assist walking or otherwise improve the mobility of people with a mobility disability. Examples are crutches, walking frames, wheelchairs and mobility scooters. For people who are blind or visually impaired, the white cane and guide dog have a long history of use. Other aids can help with mobility or transfer within a building or where there are changes of level.

Mobility disability: Preferred general term to replace “limp” or “lameness”.

MS / Multiple sclerosis (also known as **disseminated sclerosis** or **encephalomyelitis disseminate**): A chronic, typically progressive disease involving damage to the sheaths of nerve cells in the brain and spinal cord. Symptoms may include numbness, impairment of speech and of muscular coordination, blurred vision, and severe fatigue. For more information, see the US website - http://www.nationalmssociety.org/

Multiple disability / Multi-Sensory Impairment (MSI): (of a person) having two or more disabilities, for example being both blind and deaf simultaneously.

Muscular dystrophies: A group of diseases caused by defects in a person’s genes. Over time, this muscle weakness decreases mobility and makes the tasks of daily living difficult. Different types of muscular dystrophy affect specific groups of muscles, have a specific age when signs and symptoms are first seen, vary in how severe they can be, and are caused by imperfections in different genes. For more information see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Myasthenia gravis (MG): An autoimmune disease — a disease that occurs when the immune system attacks the body's own tissues. MG causes weakness in muscles that control the eyes, face, neck and limbs. Symptoms include partial paralysis of eye movements, double vision and droopy eyelids, as well as weakness and fatigue in neck and jaws with problems in chewing, swallowing and holding up the head. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Myoadenylate deaminase deficiency: A metabolic muscle disease that interferes with the muscle cell's processing of adenosine triphosphate (ATP), the major energy molecule of the cell. The disease may cause exercise intolerance, cramps and muscle pain; although, in many cases, people with deficiencies in this enzyme may experience no symptoms. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Myopia: Often known as 'being short sighted', myopia causes your vision to be blurry in the distance but clearer when looking at things up close. It is a very common condition of the eyes. For most people it can easily be dealt with using contact lenses or glasses, which will make your vision clear and crisp.

Myotonia congenital: An inherited myopathy, a disease that causes problems with the tone and contraction of skeletal muscles. It doesn't cause muscle atrophy (shrinkage); instead, it sometimes can cause muscle enlargement and increased muscle strength. There are two types of myotonia congenita: Becker-type myotonia is the most common form, while Thomsen disease is a very rare, relatively mild form. The main problems faced by people with this

disease are delayed muscle relaxation and muscle stiffness, typically provoked by sudden movements after rest.

For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Myotonic Muscular Dystrophy - (MMD, Steinert disease, dystrophia myotonica / DM): A form of muscular dystrophy that affects muscles and many other organs in the body. The word myotonic is the adjective for the word myotonia, an inability to relax muscles at will. The term muscular dystrophy means progressive muscle degeneration, with weakness and shrinkage of the muscle tissue. For more information see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

N

Nager Syndrome: A rare condition that mainly affects the development of the face, hands and arms. People with Nager syndrome are born with underdeveloped cheek bones (malar hypoplasia) and a very small lower jaw (micrognathia). They often have an opening in the roof of the mouth called a cleft palate. Nager syndrome does not affect a person's intelligence, although speech development may be delayed due to hearing impairment.

Nemaline myopathy (rod body disease): An inherited myopathy, a group of diseases that causes problems with the tone and contraction of skeletal muscles. Nemaline myopathy causes weakness and poor tone (hypotonia) in

the muscles of the face, neck and upper limbs, and often affects the respiratory muscles (those that control breathing). For more information see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Neurofibromatoses: A group of three genetically distinct disorders that cause tumours to grow in the nervous system. Tumours begin in the supporting cells that make up the nerve and the myelin sheath (the thin membrane that envelops and protects the nerves), rather than the cells that actually transmit information. The type of tumour that develops depends on the type of supporting cells involved. Scientists have classified the disorders as **neurofibromatosis type 1** (NF1, also called von Recklinghaus disease), **neurofibromatosis type 2** (NF2), and a type that was once considered to be a variation of NF2 but is now called **schwannomatosis**.

For more information visit the US website of the National Institute of Neurological Disorders and Stroke (NINDS) at http://www.ninds.nih.gov/disorders/neurofibromatosis/detail_neurofibromatosis.htm

Non-disabled: Person or people without a disability and preferred antonym for disabled.

Nystagmus: Continuous uncontrolled to and fro movement of the eyes. The movements may be in any direction. This means that the eyes will look like they are moving from side to side or up and down or even in circles. Most people with nystagmus have reduced vision. For more information see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/
- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

O

Obsessive-Compulsive Disorder (OCD): An anxiety disorder that presents itself as recurrent, persistent obsessions or compulsions. Obsessions are intrusive ideas, thoughts or images while compulsions are repetitive behaviours or mental acts that person feels they must perform.

Occupational Therapy: A profession concerned with promoting health and well-being through occupation. The primary goal of occupational therapy is to enable people to achieve and maintain independence in the activities of everyday life. Occupational therapists achieve this outcome by enabling people to do things that will enhance their ability to participate or by modifying the environment to better support participation.

Oculopharyngeal muscular dystrophy (OPMD): One of nine types of muscular dystrophy, a group of genetic, degenerative diseases primarily affecting voluntary muscles. Although named for the muscles it affects first — the eyelids (oculo) and throat (pharyngeal) — OPMD also can affect facial and limb muscles. Symptoms of OPMD include difficulty swallowing and keeping the eyes open. Later on, some people with OPMD may have mobility problems. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Oppositional Defiant Disorder (ODD): A psychological condition presenting itself as an ongoing pattern of disobedient, hostile, defiant and deliberately subversive behaviour toward authority figures / systems of authority which

goes beyond the bounds of normal childhood behaviour. Often linked with ADHD, learning disabilities and anxiety disorders.

Optical character recognition (OCR): The mechanical or electronic conversion of images of typewritten or printed text into machine-encoded text. It is widely used as a form of data entry from printed paper data records, whether passport documents, invoices, bank statement, receipts, business card, mail, or other documents. It is a common method of digitizing printed texts so that it can be electronically edited, searched, stored more compactly, displayed on-line, and used in machine processes such as machine translation, text-to-speech, key data and text mining. OCR is a field of research in pattern recognition, artificial intelligence and computer vision.

Orthotics: A specialty within the medical field concerned with the design, manufacture and application of orthoses. An **orthosis** (plural: orthoses) is an externally applied device used to modify the structural and functional characteristics of the neuromuscular and skeletal system. An **orthotist** is the primary medical clinician responsible for the prescription, manufacture and management of orthoses. An orthosis may be used to:

- Control, guide, limit and/or immobilize an extremity, joint or body segment for a particular reason
- To restrict movement in a given direction
- To assist movement generally
- To reduce weight bearing forces for a particular purpose
- To aid rehabilitation from fractures after the removal of a cast
- To otherwise correct the shape and/or function of the body, to provide easier movement capability or reduce pain

Patients benefiting from an orthosis may have a condition such as spina bifida or cerebral palsy, or have experienced a spinal cord injury or stroke. Equally, orthoses are sometimes used prophylactically or to optimise performance in sport.

Otosclerosis: A condition which results in the abnormal growth of bone in the middle ear. It can cause conductive hearing loss. Hearing loss of this type causes sounds to become quieter rather becoming distorted.

For more information visit the US website of the National Institute of Deafness and other Communication Disorders (NIDCD) at http://www.nidcd.nih.gov/health/hearing/pages/otosclerosis.aspx

P

Paralympic Games: a major international multi-sport event, involving athletes with a range of physical disabilities, including impaired muscle power (e.g. paraplegia and quadriplegia, muscular dystrophy, Post-polio syndrome, spina bifida), impaired passive range of movement, limb deficiency (e.g. amputation or dysmelia), leg length difference, short stature, hypertonia, ataxia, athetosis, vision impairment and intellectual impairment. There are Winter and Summer Paralympic Games, which since the 1988 Summer Games in Seoul, South Korea, are held almost immediately following the respective Olympic Games. All Paralympic Games are governed by the International Paralympic Committee (IPC).

IPC Classification – Classification provides a structure for competition. Athletes competing in Paralympic sports/Paralympic Games have an impairment that leads to a competitive disadvantage in sport. Consequently, a system has to be put in place to minimise the impact of impairments on sport performance and to ensure the success of an athlete is determined by skill, fitness, power, endurance, tactical ability and mental focus. This system is called classification.

Classification determines who is eligible to compete in a Paralympic sport and it groups the eligible athletes in sport classes according to their activity limitation in a certain sport.

IPC Classification - Eligible Impairments

The Paralympic Movement offers sport opportunities for athletes with physical, visual and intellectual impairments and these can be divided into 10 eligible impairment types.

There are eight different types of physical impairments in the Paralympic Movement: • Impaired muscle power: With impairments in this category, the force generated by muscles, such as the muscles of one limb, one side of the body
or the lower half of the body is reduced, e.g. due to spinal-cord injury, spina bifida or polio.

1. Impaired passive range of movement: Range of movement in one or more joints is reduced in a systematic way. Acute conditions such as arthritis are not included.
2. Loss of limb or limb deficiency: There is a total or partial absence of bones or joints as a consequence of amputation due to illness or trauma or congenital limb deficiency (e.g. dysmelia).
3. Leg-length difference: Significant bone shortening occurs in one leg due to congenital deficiency or trauma.
4. Short stature: Standing height is reduced due to shortened legs, arms and trunk, which are due to a musculoskeletal deficit of bone or cartilage structures.
5. Hypertonia: Hypertonia is marked by an abnormal increase in muscle tension and reduced ability of a muscle to stretch. Hypertonia may result from injury, disease, or conditions which involve damage to the central nervous system
6. (e.g. cerebral palsy).

7. Ataxia: Ataxia is an impairment that consists of a lack of co-ordination of muscle movements (e.g. cerebral palsy, Friedreich's ataxia).
8. Athetosis: Athetosis is generally characterized by unbalanced, involuntary movements and a difficulty maintaining a symmetrical posture (e.g. cerebral palsy, choreoathetosis).

In addition to athletes with physical impairment, athletes with a visual or intellectual impairment are also included in the Paralympic Movement.

9. Visual impairment: Visual Impairment occurs when there is damage to one or more of the components of the vision system, which can include:
    - impairment of the eye structure/receptors
    - impairment of the optic nerve/optic pathways
    - impairment of the visual cortex

10. Intellectual Impairment: Athletes with an intellectual impairment are limited in regards to intellectual functions and their adaptive behaviour, which is diagnosed before the age of 18 years.

Paralysis: Condition involving loss of sensation or of muscle function.

Paramyotonia congenita (Eulenberg disease): An inherited myopathy, a disease that causes problems with the tone and contraction of skeletal muscles. It causes episodes of muscle stiffness and weakness — mostly in the face, neck and upper extremities — that can last from minutes to hours. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Paraplegia: Paralysis of the lower limbs

Parkinson's disease: PD (also known as idiopathic or primary parkinsonism, hypokinetic rigid syndrome/HRS, or paralysis agitans) is a degenerative disorder of the central nervous system. The motor symptoms of Parkinson's disease result from the death of dopamine-generating cells in the substantia nigra, a region of the midbrain; the cause of this cell death is unknown. Early in the course of the disease, the most obvious symptoms are movement-related; these include shaking, rigidity, slowness of movement and difficulty with walking and gait. Later, thinking and behavioural problems may arise, with dementia commonly occurring in the advanced stages of the disease, whereas depression is the most common psychiatric symptom. Other symptoms include sensory, sleep and emotional problems. For more information see the website of the Parkinson Society Singapore - http://www.parkinsonsingapore.com/

Participation: Involvement in a life situation. World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.

Participation restrictions: Problems an individual may experience in involvement in life
situations. World Health Organisation: International Classification of Functioning, Disability and Health (ICF) - Definitions in the context of health, Exposure Draft, Oct 2013.

Pathological demand avoidance syndrome (PDA): People with PDA will avoid demands made by others, due to their high anxiety levels when they feel that they are not in control. PDA is increasingly recognised as part of the autism spectrum. The main features of PDA are: obsessively resisting ordinary demands; appearing sociable on the surface but lacking depth in their understanding (often recognised by parents early on); excessive mood swings, often switching suddenly; comfortable (sometimes to an extreme extent) in role play and pretending; language delay, seemingly as a result of passivity, but often with a good degree of 'catch-up'; obsessive behaviour, often focused on

people rather than things. For more information visit the UK website of the PDA Society at http://www.pdasociety.org.uk/

People-first language: Aims to avoid perceived and subconscious dehumanization when talking with or about people with disabilities. The basic idea is to impose a sentence structure that names the person first and the condition second, for example "people with disabilities" rather than "disabled people" thus

• acknowledging the person before the disability
• shifting the focus away from the condition

Periodic paralyses (hyperkalemic, hypokalemic, Andersen-Tawil syndrome): The different types of periodic paralyses are distinguished by what happens to potassium levels in the blood (specifically the serum, or fluid, portion of the blood). In the hyperkalemic type (hyperKPP), high serum potassium levels cause attacks of temporary muscle weakness that can result in paralysis when severe. In the hypokalemic type (hypoKPP), low serum potassium levels can trigger attacks. (Kalemic refers to potassium; hyper means too much and hypo too little.) In the Andersen-Tawil type, irregularities in the potassium channel gene can affect the heartbeat as well as the ability of muscles to stay ready to contract. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Peripheral neuropathy: A condition that develops as a result of damage to the peripheral nervous system — the vast communications network that transmits information between the central nervous system (the brain and spinal cord) and every other part of the body. (Neuropathy means nerve disease or damage.) Symptoms can range from numbness or tingling, to pricking sensations (paresthesia), or muscle weakness. Areas of the body may become abnormally sensitive leading to an exaggeratedly intense or distorted experience of touch (allodynia). In such cases, pain may occur in response to a stimulus that does not normally provoke pain. Severe symptoms may include

burning pain (especially at night), muscle wasting, paralysis, or organ or gland dysfunction. Damage to nerves that supply internal organs may impair digestion, sweating, sexual function, and urination. In the most extreme cases, breathing may become difficult, or organ failure may occur. Peripheral nerves send sensory information back to the brain and spinal cord, such as a message that the feet are cold. Peripheral nerves also carry signals from the brain and spinal cord to the muscles to generate movement. Damage to the peripheral nervous system interferes with these vital connections. Like static on a telephone line, peripheral neuropathy distorts and sometimes interrupts messages between the brain and spinal cord and the rest of the body. For more information, visit the US website of the National Institute of Neurological Disorders and Stroke (NINDS) at http://www.ninds.nih.gov/disorders/peripheralneuropathy/detail_peripheralneuropathy.htm

Pervasive Developmental Disorder (PDD): The term was coined by the American Psychiatric Association. It covers autism and related conditions such as Rett's syndrome or Fragile X syndrome. It can broadly be seen as the umbrella term for all autism spectrum disorders and related disorders. In Europe the term autism spectrum disorder (ASD) is more commonly used to describe conditions which clearly fall on the autism spectrum such as Asperger syndrome. Rett's syndrome et al are perceived as separate conditions with some related symptoms.

Pervasive Development Disorder Not Otherwise Specified (PDD-NOS): Also sometimes incorrectly referred to as atypical autism. It is one of a number of PDD, along with autism, Asperger syndrome, Retts syndrome, and childhood disintegrative disorder. Erroneously, PDD-NOS is often shortened to PDD (the umbrella category under which PDD-NOS is found). At present, the diagnostic criteria for all such disorders are under review as there is a need for greater clarity.

Pfeiffer syndrome: A genetic disorder characterised by the premature fusion of certain skull bones (craniosynostosis). This early fusion prevents the skull from growing normally and affects the shape of the head and face. Pfeiffer syndrome also affects bones in the hands and feet. For more information, visit the Genetics Home Reference website, a service of the US National Library of Medicine at http://ghr.nlm.nih.gov/condition/pfeiffer-syndrome

Phosphofructokinase deficiency (Tarui disease, glycogenosis type 7): One of a group of metabolic muscle disorders that interferes with the processing of food (in this case, carbohydrates) for energy production. The condition results in exercise intolerance, with pain, cramps and, occasionally, myoglobinuria (acute muscle breakdown leading to rust-coloured urine). For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Phosphoglycerate kinase deficiency (glycogenosis type 9): One of a group of metabolic muscle diseases that interferes with the processing of food (in this case, carbohydrates) for energy production. This disease may cause anemia, enlargement of the spleen, intellectual disability and epilepsy. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Phosphoglycerate mutase deficiency (glycogenosis type 10): One of a group of muscle diseases that interferes with the processing of food (in this case, carbohydrates) for energy production. This disease causes exercise intolerance, cramps, muscle pain and, sometimes, myoglobinuria (acute muscle breakdown leading to rust-coloured urine). For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Phosphorylase deficiency (McArdle disease, myophosphorylase deficiency, glycogenosis type 5): One of a group of metabolic muscle diseases that interferes with the processing of food (in this case, carbohydrates) for energy production. Phosphorylase deficiency causes exercise intolerance, such as cramps, muscle pain and weakness, shortly after beginning exercise. A person with this disorder may tolerate light-to-moderate exercise such as walking on level ground, but strenuous exercise usually will bring on symptoms quickly. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Physical Difficulty: General term that covers a wide range of conditions including arthritis, muscular dystrophy and paralysis.

Physiotherapy: The treatment of disease, injury, or deformity by physical methods such as massage, heat treatment, and exercise rather than by drugs or surgery.

Poliomyelitis / Polio: A highly infectious viral disease, which mainly affects young children. The virus is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and can cause paralysis. Initial symptoms of polio include fever, fatigue, headache, vomiting, stiffness in the neck, and pain in the limbs. In a small proportion of cases, the disease causes paralysis, which is often permanent. There is no cure for polio, it can only be prevented by immunization. For more information, visit the World Health Organization website at http://www.who.int/topics/poliomyelitis/en/

Polymyositis: One of the inflammatory myopathies, a group of muscle diseases that involves inflammation of the muscles or associated tissues, such as the blood vessels that supply the muscles. The muscles of the shoulders, upper arms, hips, thighs and neck display the most weakness in Polymyositis. There

also can be pain or tenderness in the affected areas, as well as swallowing problems and inflammation of the heart and lung muscle tissues. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Positive discrimination or **reverse discrimination (in the context of the allocation of resources or employment):** The practice or policy of favouring individuals belonging to groups which experience discrimination.

Presbycusis: Age-related hearing loss with gradually progressive inability to hear, especially high frequency sounds. Presbycusis most often occurs in both ears, although not necessarily at the same time or rate. Because the loss of hearing is so gradual, people with presbycusis may not realise that their hearing is diminishing. They may have trouble distinguishing and understanding conversation in a noisy setting. Environmental exposures (such as to guns, power tools, industrial machinery, or very loud music) contribute significantly to presbycusis. For more information, visit the US website of the National Institute of Deafness and other Communication Disorders (NIDCD) at http://www.nidcd.nih.gov/health/hearing/Pages/Age-Related-Hearing-Loss.aspx

Prader-Willi Syndrome (PWS): A complex genetic condition that affects many parts of the body. In infancy, this condition is characterized by weak muscle tone (hypotonia), feeding difficulties, poor growth, and delayed development. Beginning in childhood, affected individuals develop an insatiable appetite, which leads to chronic overeating (hyperphagia) and obesity. Some people with PWS syndrome, particularly those with obesity, also develop type 2 diabetes mellitus (the most common form of diabetes). People with PWS typically have mild to moderate intellectual impairment and learning disabilities. Behavioural problems are common, including temper outbursts, stubbornness, and compulsive behaviour such as picking at the skin. Sleep abnormalities can also occur. For more information, visit the Genetics Home

Reference website, a service of the US National Library of Medicine at http://ghr.nlm.nih.gov/condition/prader-willi-syndrome

Prosthesis: An artificial substitute or replacement of a part of the body such as a tooth, eye, a facial bone, the palate, a hip, a knee or another joint, the leg, an arm, etc. A prosthesis is designed for functional or cosmetic reasons or both.

Q

Quadriplegia or **tetraplegia:** partial or total paralysis of all four limbs and torso.

R

Reasonable accommodation: Refers to necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms (CRPD, Art 2 – Definitions) The idea behind this principle is that accommodation should be made to include and support persons with disabilities as long as the adjustments are reasonably possible to do. In order to be reasonable the accommodation should be within

the financial and technological capabilities of the people doing the adjustments. For example, it is not reasonable to expect a small business of limited resources to renovate their entire office to hire a wheelchair user, but it could install a ramp and renovate the toilet to accommodate that new employee's needs.

Rehabilitation: Planned process with defined goals, timeframes and means in which professions and/or services co-operate in assisting the efforts of a person to achieve best possible functioning and coping capabilities, thereby promoting independence and participation in society.

Repetitive strain injury (RSI) and **cumulative trauma disorders:** Umbrella terms used to refer to several discrete conditions that can be associated with repetitive tasks, forceful exertions, vibrations, mechanical compression, or sustained/awkward positions. Examples of conditions that may sometimes be attributed to such causes include edema, tendinosis (or less often tendinitis), carpal tunnel syndrome, cubital tunnel syndrome, De Quervain syndrome, thoracic outlet syndrome, intersection syndrome, golfer's elbow (medial epicondylitis), tennis elbow (lateral epicondylitis), trigger finger (so-called stenosing tenosynovitis), radial tunnel syndrome, and focal dystonia.

Respite care: The provision of short-term accommodation in a facility outside the home in which a family member may be placed. This provides temporary relief to those who are caring for family members. Respite programs provide planned short-term and time-limited breaks for families and other unpaid care givers of children with a developmental delay and adults with an intellectual disability in order to support and maintain the primary care giving relationship. Respite also provides a positive experience for the person receiving care. It has been shown to help sustain family caregiver health and well-being, avoid or delay out-of-home placements, and reduce the likelihood of abuse and neglect.

Retinitis pigmentosa (RP): The name given to a diverse group of inherited eye disorders. These eye conditions affect a part of the eye called the retina. RP causes permanent changes to your vision, but how much and how quickly can really vary from person to person. These retinal changes can affect side vision, which makes it harder to see in dim light or the dark, and central vision, which causes difficulty with detailed activities such as reading or watching television. With RP, sight loss is gradual and usually progresses over a period of many years. Some people with RP might become blind but most people with RP keep some useful vision well into old age. Almost all types of RP are inherited, caused by a fault in the genetic information passed down to you from a parent. In most cases, the inherited gene defect only affects the eyes. Sometimes, other parts of the body are also affected. One example of this is **Usher syndrome**, where people develop both hearing loss and sight loss. Others include **Refsum, Alström, and Laurence-Moon-Bardet- Biedl (LMBB) syndromes**. For more information, see the websites of

- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/
- RP Fighting Blindness (The British Retinitis Pigmentosa Society) - http://www.rpfightingblindness.org.uk/

Rett syndrome: A rare non-inherited genetic postnatal neurological disorder that occurs almost exclusively in girls and leads to severe impairments, affecting nearly every aspect of the child's life: their ability to speak, walk, eat, and even breathe easily. The hallmark of Rett syndrome is near constant repetitive hand movements while awake. For more information, see http://www.rettsyndrome.org

Rheumatism: An obsolete medical term - may refer to rheumatoid arthritis.

S

Savant syndrome: A rare condition in which people with severe mental disabilities have some spectacular talent or 'island of genius' which stands in marked contrast to their overall disability. One in 10 persons with autism have such remarkable abilities in varying degrees, although savant syndrome also occurs in other developmental disabilities and some CNS (central nervous system) injuries/diseases. Savant skills are usually demonstrated in five areas (music, art, calendar calculating, mathematics and mechanical/spatial) and are always accompanied by extraordinary memory. The term "idiot savant" is now little used because of its inappropriate connotations. Another term "autistic savant" is widely used: This is misleading as not all savants are autistic.

Schizophrenia: A long-term mental health condition illnesses marked by major distortions of reality, withdrawal from social contact, and disturbances of thought, language, perception and emotional response.

Screen resolution: The term used to describe the number of dots, or pixels, used to display an image. Higher resolutions mean that more pixels are used to create the image, resulting in a crisper, cleaner image.

Semantic pragmatic disorder (SPD): a language disorder that affects semantic processing and the pragmatics of language use. Pragmatics refers to the use of language in a social context (knowing what to say and when to say it to people). Semantics refers to the meanings of words and phrases. For more information, visit the UK website of the National Autistic Society at http://www.autism.org.uk/about-autism/related-conditions/semantic-pragamtic-disorder.aspx

Sensory impairment: A disability that affects touch, sight and/or hearing.

Sensory Processing Disorder (**SPD**, formerly known as "sensory integration dysfunction"): A complex brain disorder that causes a child to misinterpret everyday sensory information like movement, sound and touch. Children with SPD may seek out intense sensory experiences or feel overwhelmed with information. For more information, see the US website for the Sensory Processing Disorder Foundation - http://spdfoundation.net/index.html

Service animal: Any animal trained to provide assistance or perform tasks for the benefit of a person with a physical or mental disability. Guide dogs are the best-known examples of service animal or companion dog. These latter terms are used extensively in North America and Europe but less so in Asia-Pacific and other regions of the world.

Sign language / signing: The system of manual signs for communication with and among people who are deaf or hard of hearing and deaf-blind people.

Special Educational Needs (SEN): A child or young person has SEN if they have a learning difficulty or disability which calls for special educational provision to be made for him or her. A child of compulsory school age or a young person has a learning difficulty or disability if he or she has a significantly greater difficulty in learning than the majority of others of the same age, or has a disability which prevents or hinders him or her from making use of educational facilities of a kind generally provided for others of the same age in mainstream schools or mainstream post-16 institutions. (UK SEND Code 2014)

Special educational provision: Provision that is different from or additional to that normally available to pupils or students of the same age, which is designed to help children and young people with SEN or disabilities to access the National Curriculum at school or to study at college.

Special Education School: School which is specifically organised to make special educational provision for pupils with Special Educational Needs.

Specific Learning Disability: Disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in difficulties listening, thinking, speaking, reading, writing, spelling, or doing mathematical calculations. When these difficulties are clustered together, often more definitive sub-sets are used such as 'dyslexia', 'dyscalculia', ADHD'.

Speech delay: Inability to produce normal or age-appropriate speech - language is developing in the right sequence, but at a slower rate.

Speech and language disorders (also known as **speech and language impairments** and **speech and language disabilities)**

- A **speech disorder** is an impairment of the articulation of speech sounds, fluency and/or voice
- A **language disorder** is impaired comprehension and/or use of spoken, written and/or other symbol systems.

Speech input or speech recognition: A method of controlling a computer and creating text by dictation. Speech input software is combined with a microphone.

Speech and Language Therapy: A health care profession, the role and aim of which is to enable children, young people and adults with speech, language and communication difficulties (and associated difficulties with eating and swallowing) to reach maximum communication potential and achieve independence in all aspects of life.

Spina bifida: A condition where the spine does not develop properly, leaving a gap in the spine. There are different types of spina bifida:

1. Occult Spinal Dysraphism (OSD) - infants with this have a dimple in their lower back. Because most babies with dimples do not have OSD, a doctor has to check using special tools and tests to be sure. Other signs are red marks, hyperpigmented patches on the back, tufts of hair or small lumps. In OSD, the spinal cord may not grow the right way and can cause serious problems as a child grows up.
2. Spina Bifida Occulta - often called “hidden Spina Bifida” because about 15% of healthy people have it and do not know it. Spina Bifida Occulta usually does not cause harm, and has no visible signs. The spinal cord and nerves are usually fine. People find out they have it after having an X-ray of their back. It is considered an incidental finding because the X-Ray is normally done for other reasons. However, in a small group of people with SBO, pain and neurological symptoms may occur.
3. Meningocele - causes part of the spinal cord to come through the spine like a sac that is pushed out. Nerve fluid is in the sac, and there is usually no nerve damage. Individuals with this condition may have minor disabilities.
4. Myelomeningocele (Meningomyelocele), also called Spina Bifida Cystica - the most severe form of Spina Bifida. It happens when parts of the spinal cord and nerves come through the open part of the spine. It causes nerve damage and other disabilities.

For more information, visit the

- UK NHS website at http://www.spinabifidaassociation.org/site/c.evKRI7OXIoJ8H/b.8277225/k.5A79/What_is_Spina_Bifida.htm
- US Spina Bifida Association at http://www.spinabifidaassociation.org/site/c.evKRI7OXIoJ8H/b.8277225/k.5A79/What_is_Spina_Bifida.htm

Spinal-bulbar muscular atrophy (SBMA, Kennedy disease, bulbospinal muscular atrophy): A genetic disorder in which loss of motor neurons — nerve cells in the spinal cord and brainstem — affects the part of the nervous system

that controls voluntary muscle movement. The adjective bulbar refers to a bulblike structure in the lower part of the brain that contains nerve cells controlling muscles in the face, mouth and throat. SBMA causes weakness of the facial and swallowing muscles, as well as limb weakness and some hormonal abnormalities. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Spinal Muscular Atrophy (SMA, Kugelberg-Welander Disease, sma1, sma2, sma3, sma4, sma not linked to chromosome 5): A genetic disease affecting the part of the nervous system that controls voluntary muscle movement. Most of the nerve cells that control muscles are located in the spinal cord, which accounts for the word spinal in the name of the disease. SMA is muscular because its primary effect is on muscles, which don't receive signals from these nerve cells. Atrophy is the medical term for getting smaller, which is what generally happens to muscles when they are not active. SMA involves the loss of nerve cells (called motor neurons) in the spinal cord and is classified as a motor neuron disease. For more information, see the websites of

- Muscular Dystrophy Association (Singapore) - http://www.mdas.org.sg/
- Muscular Dystrophy Association (USA) - http://mda.org/disease

Stammering or stuttering: Speaking with involuntary breaks and pauses, or with spasmodic repetitions of syllables or sounds.

Stargardt disease (or fundus flavimaculatus): An inherited form of juvenile macular degeneration that causes progressive vision loss usually to the point of legal blindness. The progression usually starts between the ages of six and twelve years old and plateaus shortly after rapid reduction in visual acuity. Symptoms typically develop by twenty years of age, and include wavy vision, blind spots, blurriness, impaired colour vision, and difficulty adapting to dim lighting. For more information, see the websites of

- Singapore Association of the Visually Handicapped (SAVH) - http://www.savh.org.sg/

- Royal National Institute of Blind People (RNIB) website - http://www.rnib.org.uk/

Stickler syndrome (hereditary progressive arthro-ophthalmopathy): A group of genetic disorders affecting connective tissue, specifically collagen. It is characterised by distinctive facial features, ocular problems, hearing loss, and joint problems. For more information, visit the websites of

- National Organization for Rare Disorders (NORD) at https://rarediseases.org/rare-diseases/stickler-syndrome/
- Stickler Syndrome Support group (SSSG) at http://www.stickler.org.uk/index.html

Suffers: We do not use expressions like 'suffers from depression', but refer instead to a 'person living with depression'.

T

Tinnitus: The name given to the condition of noises in the ears and/or head with no external source. Tinnitus noises are described variously as ringing, whistling, buzzing and humming.

Tourette's Syndrome: A neurological disorder characterised by repetitive, stereotyped, involuntary movements and vocalisations called tics. Although the media often portray people with Tourette's as involuntarily shouting out swear words (called coprolalia) or constantly repeating the words of other people (called echolalia), these symptoms are rare. For more information, visit the US website of the National Institute of Neurological Disorders and Stroke (NINDS) at http://www.ninds.nih.gov/disorders/tourette/detail_tourette.htm

Traumatic Brain Injury (TBI): An acquired injury to the brain caused by an external physical force resulting in impairments in one or more areas, including cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behaviour; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital, degenerative, or induced by birth trauma.

Treacher Collins Syndrome, also termed Franceschetti Syndrome (TCFS): A condition that affects the development of bones and other tissues of the face. The signs and symptoms of this disorder vary greatly, ranging from almost unnoticeable to severe. Most affected individuals have underdeveloped facial bones, particularly the cheek bones, and a very small jaw and chin (micrognathia). This condition is also characterised by absent, small, or unusually formed ears. Hearing loss occurs in about half of all affected individuals. For more information visit the Genetics Home Reference website, a service of the US National Library of Medicine at http://ghr.nlm.nih.gov/condition/treacher-collins-syndrome

Turner syndrome: A chromosomal condition that affects development in females. The most common feature of Turner syndrome is short stature, which becomes evident by about age 5. An early loss of ovarian function (ovarian hypofunction or premature ovarian failure) is also very common. Developmental delays, nonverbal learning disabilities, and behavioural problems are possible, although these characteristics vary among affected individuals. For more information, visit the Genetics Home Reference website, a service of the US National Library of Medicine at http://ghr.nlm.nih.gov/condition/turner-syndrome

U

Universal design: Refers to the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed (UNCRPD, Art 2 – Definitions).

Universal design – "Design for all"- 7 principles: The design of the building, product, communication or service:

1. is useful and marketable to people with diverse disabilities (**Equitable Use)**
2. accommodates a wide range of individual preferences and abilities **(Flexibility in Use)**
3. is easy to understand regardless of the user's experience, knowledge, language skills, or current concentration level (**Simple and Intuitive Use)**
4. communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities (**Perceptible Information**)
5. minimises hazards and the adverse consequences of accidental or unintended actions (**Tolerance for Error)**
6. can be used efficiently and comfortably, helping reduce fatigue **(Low Physical Effort)**
7. is of the proper size and provides appropriate space for approach, reach, manipulation, and use, regardless of the user's body size, posture or mobility **(Size and Space for Approach and Use)**

Universal design of instruction: The design of instructional materials and activities that make learning achievable by students with a wide variety of abilities and disabilities.

V

Visual impairment / visual disability: Fully or partially reduced functioning in one eye's or both eyes' ability to detect and/or process images. Caused by a wide range of biological and environmental factors, loss of vision typically arises in young people from a genetic / biological condition or injury to part/s of the eye. The term "blind" is not necessarily offensive and is sometimes used within the Blind/Visually Impaired Community. If in doubt, use "visually impaired".

W

Wheelchair: Mobility aid used by people with physical disabilities that make walking difficult or impossible. Avoid phrases such as "Confined to a wheelchair" or "wheelchair-bound", since wheelchair users (also sometimes known as wheelchair riders) view their wheelchairs as liberating or enabling rather than confining. The word "wheelchair" or its derivatives occurs in terms such as "wheelchair dancer" to describe a performing artiste and "marathon wheeler" or "wheelchair marathoner" to describe a marathon participant.

White cane / white stick: This long white walking-stick provides sufficient information to the blind traveller to ensure safe, efficient and independent travel in both familiar and unfamiliar environments. The cane, when used

appropriately, previews the environment to detect obstacles and/or surface changes in one's path of travel, allowing the traveller sufficient time to stop or change course as necessary. Its length allows it to be used as a probe to extend one's reach for exploring the environment or detecting objects of interest and its distinctive coloration identifies its user as being either blind or partially sighted. It is an indication of ability as opposed to disability and serves as a symbol of independence for its user.

Williams syndrome (WS): A developmental disorder that affects many parts of the body. This condition is characterised by mild to moderate intellectual disability or learning problems, unique personality characteristics, distinctive facial features and heart and blood vessel (cardiovascular) problems. People with WS typically have difficulty with visual-spatial tasks such as drawing and assembling puzzles, however they tend to do well with tasks that involve spoken language, music and learning by repetition (rote memorisation). Affected individuals have outgoing, engaging personalities and tend to take an extreme interest in other people. Attention deficit disorder (ADD), problems with anxiety, and phobias are common among people with this disorder. WS has many names: Beuren syndrome, Elfin Facies Syndrome, Elfin Facies with hypercalcemia, Hypercalcemia-Supravalvar Aortic Stenosis, Infantile hypercalcemia, Supravalvar aortic stenosis syndrome, WBS, Williams-Beuren Syndrome and WMS. For more information, see the

- Genetics Home Reference website, a service of the US National Library of Medicine at http://ghr.nlm.nih.gov/condition/williams-syndrome
- Williams Syndrome Association website at https://williams-syndrome.org/

Working memory: Ability to hold information in memory whilst performing a cognitive task. Affects ability to sequence, perform mathematical calculations requiring a series of steps, organisation, ability to follow complex instructions etc.

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Tel: 65.6791 1134
Email: info@dpa.org.sg
Website: www.dpa.org.sg
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