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Shoulder Arthroplasty (Reverse and Regular) Rehabilitation Protocol

Phase 1 (surgery to 4 weeks after surgery)

Appointments

- Physician appointment 2-4 weeks after surgery
- Rehabilitation appointments begin within 1 week of surgery

Rehabilitation Goals

- Reduce pain and swelling in the post-surgical shoulder
- Maintain active range of motion of the elbow, wrist and neck
- Protect healing of repaired tissues and implanted devices

Precautions

- Use sling continuously except while doing therapy or light, protected activities – such as desk work, for 4 weeks
- Wear sling while sleeping for 6 weeks
- No active shoulder motion for 4 weeks, all planes
- No active internal rotation for 6 weeks
- External rotation range of motion limited to 20 degrees
- Relative rest to reduce inflammation

Suggested Therapeutic Exercise

- Elbow, wrist and neck active range of motion
- Ball squeezes
- Passive and active assistive range of motion for shoulder flexion and abduction to patient tolerance
- Codmans/Pendulum exercises
- Painfree submax isometrics for shoulder flexion, abduction, extension and external rotation

Cardiovascular Fitness

- Walking and/or stationary bike with sling on • No treadmill

Progression Criteria

- The patient must be at least 4 weeks post-operative

Phase 2 (begin after meeting phase 1 criteria, usually 4-6 weeks after surgery)

Appointments

- Rehabilitation appointments are usually one time every week

Rehabilitation Goals

- Controlled restoration of passive and active assistive range of motion
- Activate shoulder and scapular stabilizers in a protected position of 0 degrees to 30 degrees of shoulder abduction)
- Correct postural dysfunctions

Precautions

- Wean out of the sling slowly based on the safety of the environment during weeks 5 and 6. Discontinue use of the sling by the end of week 6
- Wear sling while sleeping for 6 weeks
- No active internal rotation for 4 weeks
- External rotation range of motion limited to 30 degrees weeks 5 and 6, then to 45 degrees for weeks 7 and 8

Suggested Therapeutic Exercise

- Passive and active assistive range of motion for the shoulder in all cardinal planes (shoulder internal rotation should be passive only until 4 weeks)
- Pain free, progressive, low resistance shoulder isotonic
- Gentle, low velocity rhythmic stabilizations to patient tolerance
- Gentle shoulder mobilizations as needed
- Scapular strengthening with the arm in neutral
- Cervical spine and scapular active range of motion
- Postural exercises
- Core strengthening

Cardiovascular Fitness

- Walking and stationary bike
- No treadmill or stairmaster
- Avoid running and jumping due to forces that can occur at landing

Progression Criteria

- The patient must be at least 6 weeks post-operative

Phase 3 (begin after meeting phase 2 criteria, usually 6-8 weeks after surgery)

Appointments

- Physician appointment 6-8 weeks after surgery
- Rehabilitation appointments are one time every 1-2 weeks

Rehabilitation Goals

- Functional shoulder active range of motion in all planes
- Normal (rated 5/5) strength for shoulder internal rotators and external rotators with the shoulder in 0 degrees of abduction
- Correct any postural dysfunction

Precautions

- External rotation range of motion limited to 60 degrees

Suggested Therapeutic Exercise

- Shoulder internal rotation and external rotation with theraband or weights that begin at 0 degrees of shoulder abduction - gradually increase shoulder abduction as strength improves
- Open kinetic chain shoulder rhythmic stabilizations in supine (eg. stars or alphabet exercises)
- Gentle closed kinetic chain shoulder and scapular stabilization drills – wall ball circles and patterns
- Proprioceptive neuromuscular facilitation patterns
- Side lying shoulder flexion
- Scapular strengthening
- Active, active assistive, and passive range of motion at the shoulder as needed
- Core strengthening
- Begin trunk and hip mobility exercises

Cardiovascular Fitness

- Walking and stationary bike

No treadmill, stairmaster or swimming

- Avoid running and jumping until the athlete has full rotator cuff strength in a neutral position due to forces that can occur at landing

Progression Criteria

- The patient must be at least 12 weeks post-operative

Phase 4 (begin after meeting phase 3 criteria, usually 12 weeks after surgery)

Appointments

- Physician appointment 12 weeks after surgery
- Rehabilitation appointments are one time every 2-3 weeks

Rehabilitation Goals

- Normal (rated 5/5) rotator cuff strength
- Advance proprioceptive and dynamic neuromuscular control retraining
- Achieve maximal shoulder external rotation (no limitations)
- Correct postural dysfunctions with work and sport specific tasks
- Post-rehabilitation soreness should alleviate within 12 hours of the activities

Suggested Therapeutic Exercise

- Multi-plane shoulder active range of motion with a gradual increase in the velocity of movement while making sure to assess scapular rhythm
- Shoulder mobilizations as needed
- Rotator cuff strengthening in 90 degrees of shoulder abduction, and overhead (beyond 90 degrees of shoulder abduction)
- Scapular strengthening and dynamic neuromuscular control in open kinetic chain and closed kinetic chain positions
- Core and lower body strengthening

Cardiovascular Fitness

- Walking, stationary bike, and stairmaster
- No treadmill or swimming.
- May begin light jogging and running if the patient has normal (rated 5/5) rotator cuff strength in neutral and normal shoulder active range of motion

Progression Criteria

- Full shoulder active range of motion in all planes and multi-plane movements
- Normal (rated 5/5) strength at 90 degrees of shoulder abduction

Phase 5(begin after meeting phase 4 criteria, usually 18 weeks after surgery)

Appointments

- Physician appointment only if needed
- Rehabilitation appointments are one time every 2-3 weeks

Rehabilitation Goals

- Normal (rated 5/5) rotator cuff strength at 90 degrees of shoulder abduction

Advance proprioceptive and dynamic neuromuscular control retraining

- Correct postural dysfunctions with work and sport specific tasks
- Develop strength and control for movements required for work or sport
- Develop work capacity cardiovascular endurance for work and/or sport

Precautions

- Post-rehabilitation soreness should alleviate within 12 hours of the activities

Suggested Therapeutic Exercise

- Multi-plane shoulder active range of motion with a gradual increase in the velocity of movement while making sure to assess scapular rhythm
- Shoulder mobilizations as needed
- Rotator cuff strengthening in 90 degrees of shoulder abduction as well as in provocative positions and work/sport specific positions, including eccentric strengthening, endurance and velocity specific exercises
- Scapular strengthening and dynamic neuromuscular control in overhead positions and work/sport specific positions
- Work and Sport specific strengthening
- Core and lower body strengthening
- Work specific program, golf program, swimming program or overhead racquet program as needed

Cardiovascular Fitness

- Design to use work or sport specific energy systems

Progression Criteria

- The patient may return to sport after receiving clearance from the physical therapist or athletic trainer
- Return to sport decisions are based on meeting the goals of this phase