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Shoulder Fracture Fixation

Post-Operative Rehabilitation Program

The goal of the rehabilitation process is to allow for fracture healing and regain mobility to pre-trauma levels. In addition, stability of the shoulder is vital and essential to normal non-painful shoulder function.

Precautions:

1. In hospital use immobilizer.
2. Discontinue immobilizer at Day 1-3 and use sling for 1 month

Physician appointments:

- 1 week after surgery
- 4 weeks after surgery
- 8 weeks after surgery
- 12 weeks after surgery

I. PHASE I - Fracture Healing phase (Weeks 0-4) - [1 visit per week]

Goals:

Decrease shoulder pain and inflammation
Allow for fracture and tuberosity healing
Retard muscular atrophy and prevent RTC inhibition

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
- Relative rest to reduce inflammation

Exercises:

- Sling at all times: may come out for elbow/wrist/hand ROM
- Exercises:
 - Elbow/Wrist ROM
 - Gripping Exercise for Hand
 - Ice & Modalities
 - Elbow flexors
 - Electrical Muscle Stimulation (if needed)

- 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

II. PHASE TWO - MOTION PHASE (Week 5-8) [1-2 visit per week]

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
- Decrease pain/inflammation Increase Functional Activities

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

Exercises:

- Passive and active assistive range of motion for the shoulder in all cardinal planes
- 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
- Biceps/triceps
- Isometrics for deltoid

Cardiovascular Fitness

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

III. PHASE THREE - Strengthening PHASE (WEEKS 9-12) [1 visit per week]

Goals:

- Functional shoulder active range of motion in all planes
- Normal (rated 5/5) strength for shoulder
- Correct any postural dysfunction

Precautions:

- As functional ability allows

Exercises:

- 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

IV. PHASE Four – Return to Activities PHASE (WEEKS 13-16) [1 visit every week]

Goals:

- Normal (rated 5/5) rotator cuff strength and endurance at 90 degrees of shoulder abduction and scaption
- Advance proprioceptive and dynamic neuromuscular control retraining
- Achieve maximal shoulder external rotation (no limitations)
- Correct postural dysfunctions with work and sport specific tasks
- Develop strength and control for movements required for work or sport

Precautions:

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

Exercises:

- 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
- Work and Sport specific strengthening
- Work specific program, golf program, swimming program or overhead racquet program as needed

Cardiovascular Fitness

- Walking, stationary bike, and stairmaster

- 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

** Full return to sports and work will occur with the approval of both the physician and therapist **