Preoperative Screening/Instruction

1. Rehabilitation for the rotator cuff will vary in length depending on several factors:
   - Age of patient
   - Acute versus chronic
   - Location/size
   - Preoperative strength/ROM status
   - Associated injuries/surgeries
   - Desired activity level.
2. Teach exercise program.
3. Anatomy and existing pathology.
4. Surgical technique.
5. Precaution/activity modification.

Precautions

1. If open repair, portion of anterior deltoid muscle detached/splint.
   - Avoid active forward flexion for a minimum of 6 weeks.
   - Avoid extension past neutral for 4 weeks.
2. Sling at side 4-6 weeks or until physician discharge.
3. Usually takes 6-12 months for full recovery, with remodeling occurring for up to 2 years.
4. Precautions to internal rotation exercise with subscapularis involvement.
5. No supporting of body weight by hands.
6. Avoid excessive stretching or sudden movement.
7. No resistive weight training/gravity resisted motion of rotator cuff for 6 weeks with external rotation or abduction.
8. All VA repairs.
Goals for Discharge

1. Maintain full non-painful ROM.
2. Improve muscle strength and power.
3. Return to function and use of shoulder.

REHABILITATION

Phases of Program based on soft tissue healing.

PHASE I: PROTECTION PHASE (0-6 weeks)

A. Goals
   - Decrease pain and inflammation.
   - Protection of repair site.
   - Increase ROM.
   - Increase strength

Weeks 0-3

A. Brace 4-6 weeks in sling.

B. PROM (pain free limitations).
   - Six times daily, immobilizer removed for exercises.
   - Pendulum exercises.
   - Supine flexion/tabletop slide
     - Use uninvolved arm to lift involved arm to 90 degrees of shoulder flexion (grasp wrist of involved arm; remain passive in involved shoulder).
   - External rotation with arm adducted to side holding towel roll between arm and trunk. Help involved hand to neutral.

C. AROM.
   - Elbow and hand (precautions if biceps involved).
   - Cervical spine AROM.
   - Hand
     - Watch for hand swelling

NOTE: Watch for ulnar nerve irritation or olecranon bursitis from leaning on elbow or pressure from sling.

D. Scapular stabilization
   - Scapular pinch
   - Sternal lift
• Lawn mower exercise beginning in sling with arm remaining adducted to body working on scapular retraction.

E. Pain modalities as needed

**PHASE II: (Weeks 4-6)**

✓ Coincides with late fibroplasia stage

A. Discharge of sling/immobilizer per physician approval.

B. Continue with exercises above.

• Begin pulleys at 4 weeks, advance to 150 degrees of flexion by 6 weeks.
• Supine external rotation to 45-60 degrees, shoulder abduction to approximately 30-45 degrees in the scaption plane, progress to 90 degrees.
• Internal rotation @ 30-45 degrees of abduction, progress to 60 degrees.
• Supine flexion to 150 degrees with use of cane (AAROM).
• Tabletop abduction.
• Treatment additions
  – Isometric motions - in adducted position
    o Shoulder flexion
    o Shoulder extension
    o IR to neutral
    o Adduction
  – Active IR/ER in sitting arm adducted to side (6 weeks)

C. Joint mobilization

• Grade I, II, and III in inferior and anterior directions

**PHASE III: INTERMEDIATE PHASE (Weeks 7-12)**

A. Goals

• Full non-painful PROM by 9 weeks
• Increase strength
• Increase proprioception

**Weeks 7-9**

A. AROM with cane/wand

• Supine AAROM advancing to standing flexion in scapular plane to 90 degrees (advance to AROM as tolerated and pain free range).
• Supine external rotation to 75-85 degrees with shoulder abducted to 90 in scapular plane degrees.
• Begin internal rotation stretch, behind back
  – This can be done in side lying position with scapular stabilizers
    using uninvolved U/E to push involved arm to hip/table (Caution
    with this stretch).
  – Can do the towel internal rotation stretch or using countertop
    surface to help pull arm up and back.

B. Begin U/E closed chain stabilization exercises
  • Scapular clock at 30 degrees advancing to 45 degrees of shoulder scaption.
  • Wall washes remaining at 90 degrees in the forward flexed position.

C. Thera-Band resisted exercises
  • Resisted extension, internal rotation, and adduction
    – Low row and bent arm row exercises may be initiated. Limit
      extension to neutral.

D. AROM.
  • Begin side lying external rotation and abduction with non-weighted
    resistance.
  • Standing shoulder flexion to 90 degrees.

E. Joint mobilization
  • Posterior capsule stretch, inferior capsule stretch as needed.

**Weeks 10-14**

A. Continue above listed exercises

B. Strengthening exercises
  • Axial loading
    – Wall washes in PNF patterns
    – Physioball U/E weightbearing activity
  • Humeral head stabilization exercises
    – Including serratus anterior and infraspinatus training
  • Inertia training
    – Flexion and extension to 45 degrees
    – Begin light internal/external rotation with arm adducted to side
      with resistance of Thera-Band
  • Start light weight training
  • Fitter exercises in standing progressing to push up position
PHASE IV: ADVANCED STRENGTHENING (Weeks 15-26)

A. Goals
   - Full non-painful AROM.
   - 80% strength of uninvolved U/E for shoulder abduction and external rotation testing with handheld MicroFET.
   - Good U/E proprioception

Weeks 15-20

A. Resisted exercises
   - Progress resistive exercise through available ROM.
B. Strengthening additions
   - Continue weight training for:
     - Shoulder flexion
     - Shoulder abduction
     - Scapion with ER
     - Internal/external rotation
     - Scapular stabilization
     - Elbow flexion and extension
C. Isokinetics to enhance strength
D. Initiate conditioning program
   - Return to swimming with elbow on kick board at 4 months.
     - Breast stroke at 5 months
     - Crawl stroke at 6 months
   - Golf (14-16 weeks)

Weeks 21-26

A. Continue above listed exercises
B. Biodex testing
C. Plyometrics
   - Medicine ball
   - Ball on tramp
   - Resisted Sportcord PNF motions and return to sport motions
D. Return to activities

PHASE V: DISCHARGE TO INDEPENDENT ACTIVITY

A. Independent with HIP
B. Functional progression for throwing athletes
   - Discharge to throwing program
BIBLIOGRAPHY

SURGICAL CUFF REPAIR I, II, III


