Thomas Bienz, MD

REHABILITATION GUIDELINES
ROTATOR CUFF RECONSTRUCTION- AVULSIVE TYPE REPAIR (FOR FIBROCARTILAGENOUS JUNCTION HEALING)

DURING REHABILITATION BE AWARE OF THESE THREE CONCEPTS:

1) STRENGTH, TIMING AND MUSCULAR BALANCE: Appropriate intensity and timing of the muscle contraction is essential around the shoulder complex. If the deltoid works alone it will pull the humeral head superior, increasing subacromial impingement. If the rotator cuff muscles are working and strong, they will help keep the humeral head in good position (rotator cuff down and in, deltoid up and in create balance in the gleno-humeral joint). Impingement or superior humeral head migration is attributed to overworking deltoid (i.e., at 90 degree of ABD, deltoid contracts and causes humeral head compression with rotator cuff contraction and some compression as well).

2) CRITICAL ZONE: Avascular region in the supraspinatus tendon (1 cm proximal to the insertion) age and position dependent (i.e., >40 years: adduction and distraction increases the avascularity).

3) HEALING TIME: After surgical intervention (reimplantation) the tendon transforms into fibrocartilage before inserting into bone. This transformation does not take place until approximately twelve weeks post surgery. Prior to this time, the tendon is vulnerable to re-rupture. Unassisted active gleno-humeral abduction against gravity should be avoided to allow time to transform the tendon at the insertion site into fibrocartilage.

ATTENTION:

To ensure healing of the repaired rotator cuff, it is imperative that you DO NOT ALLOW THE AFFECTED SHOULDER TO ADDUCT TO THE PATIENT'S SIDE. You may perform passive range of motion to the shoulder, but the lower limitations are set by the angle of the SCOI/pillow. This restriction stays in effect until brace is removed or physician indicates otherwise.

IMMEDIATE POST-OP — DOS:

- Instruct patient in the importance of wearing brace properly and how to REST in brace.
- Instruct patient to bring white t-shirt to first P.T. visit after surgery.
- At this time instruct patient in the importance of not firing middle deltoid with passive ROM.
- May attempt gentle passive ROM only if able to do without guarding by the deltoid. Included could be gentle passive oscillations for g-h joint movement; passive abduction, diagonal flexion and external rotation. Exercises should be performed in the restraints of the brace.

1 WEEK POST-OP — DATE:

- Check brace fit, ensure proper fit and usage. May assist in changing t-shirt.
- Encourage continued rest in brace.
- Continue to instruct in importance of not firing middle deltoid with rest and PROM
- Review exercises from hospital. Review relaxing deltoid with PROM.
- Begin working on axioscapular and axiohumeral muscles (lower trap and latissimus dorsi) This will be isometric only to begin.
- Therapist will begin gentle scapular mobility.

ROTATOR CUFF RECONSTRUCTION- AVULSIVE TYPE REPAIR

PREMIER Bone & Joint Centers

Thomas Bienz, MD

3 WEEKS POST-OP DATE:

- Progress with the Week 1 exercises. Continually educate patient on the importance of relaxing the deltoid.
- May begin isometric internal rotation.

3-4 WEEKS POST-OP DATE:

- Progressive resistive exercises for wrist and elbow.
- Continue gentle PROM. No unassisted active abduction!
- Passive internal rotation, external rotation, and extension.

5-6 WEEKS POST-OP DATE:

-Patient will be released from brace, may use sling or abduction sling for comfort
-Patient is encouraged to elevate arm on pillow, arm rest, etc.
-Continue PROM, scapular mobility, scapulohumeral and axioscapular muscle balancing.
-Active external and internal rotation within 60-120 degrees of abduction as long as no muscle guarding from deltoid. May want to unload deltoid with taping techniques for muscle reeducation and for deltoid insertion pain.
-May begin AA pulleys or wand exercises **IF ARM IS COMFORTABLE.**
-AA abduction though range. **NO UNASSISTED ABDUCTION.**

6-8 WEEKS POST-OP DATE:

- Follow and progress on six week instructions.
- May begin very light strengthening for rotator cuff, must isolate may want to keep arm supported while performing these initially for muscle balancing with the deltoid.
- Internal rotators will be stronger
-Isotonic strengthening of latissimus, middle, and lower trap.
- Work aggressively on muscle balancing (axioscapular and scapulohumeral force couples)

10-12 POST-OP DATE:

- Active abduction
-Continued strengthening of rotator cuff and U.E. muscles.