

Katherine J. Coyner, MD
UCONN Musculoskeletal Institute

Medical Arts & Research Building
263 Farmington Ave.
Farmington, CT 06030
Office: (860) 679-6600
Fax: (860) 679-6649
www.DrCoyner.com

Avon Office
2 Simsbury Rd.
Avon, CT 06001
Office: (860) 679-6600
Fax: (860) 679-6649



ROTATOR CUFF REPAIR with EXTRACELLULAR MATRIX GRAFT GUIDELINES

Patients with Conexa grafts do not always have the same pain response as other rotator cuff patients secondary to the lack of innervation to the graft. It is imperative that ROM precautions be followed to allow for appropriate healing because pain may not be an accurate indicator of stress to graft. Patient must refrain from any active motion until cleared by MD (minimum 8 weeks).

Phase 1:

Begins immediately post-op through 6-8 weeks.

1. Sling use at all times (with or without abduction pillow as directed by MD). May be removed for exercises and bathing.
2. Cryotherapy PRN for pain and swelling control
3. Pendulum exercises with elbow flexed (supported by non-involved arm)
4. Elbow, wrist, hand ROM exercises
5. Grip exercises
6. Gentle scapular retraction, postural awareness
7. Day 7-14 - suture removal
8. Begin Passive ROM within precautionary ROM (no forceful stretching)
 - Elevation to 140°
 - ER to 40° at 0°, 45°, 90° elevation in the scapular plane
 - IR at 0°, 45° abduction to 30° for 4 weeks, then progress as tolerated
9. Aquatic therapy (2-4 weeks)
 - Shoulders totally submerged
 - Slow active motion within precautionary ROM with emphasis on good biomechanics.
 - No coronal plane abduction.
10. NO ACTIVE ROM ON LAND

Phase 2:

6-10 weeks (treat like massive tears >3 cm)

1. Wean from sling/abduction pillow. Sling wear discouraged except as a visible sign of vulnerability in uncontrolled environment.
2. Passive ROM - Joint mobilization and stretching towards full ROM in all directions (emphasize isolated glenohumeral elevation)
3. Aquatic therapy- continue same exercises as in phase 1 without ROM limitations. Increase speed of movement as tolerated.

4. Initiate Active ROM/Initial Strengthening at 8 weeks
 - Minimal manual resistance for isometric ER/IR at 0°, 45°, and 90° in supine with arm supported as needed
 - Minimal manual resistance for rhythmic stabilization of glenohumeral joint at multiple angles in supine (60°, 90°, 120°)
 - AAROM progressing to AROM for elevation in supine. Elevate head of bed as appropriate maintaining good mechanics.
 - ER in sidelying
 - Light periscapular strengthening as appropriate (prone rowing, prone shoulder extension)
 - NO PULLEYS

Home Exercise Program

1. Stretching for full ROM in all directions
2. Active exercise as directed by physical therapist
3. Cryotherapy PRN

Phase 3:

10-14 weeks or as directed by physician

1. Glenohumeral/scapulothoracic joint mobilization, passive ROM - Goal: full ROM by 12 weeks
2. AROM elevation/scaption in standing (must be performed in ROM that allows for good biomechanics, scapular stabilization; use mirror for visual feedback)
3. Strengthening
 - Continue manual resistance - rhythmic stabilization for IR/ER (0, 45, 90 degrees abduction) and rhythmic stabilization (flex, ext, hor abd/add) at 45, 60, 90, 120 degrees elevation in scapular plane
 - AROM progressing to light manual resistance for PNF patterns
 - Aquatic therapy- increase speed of movement, progress to using hand as a "paddle" and then to webbed gloves for increased resistance as tolerated.
 - Add light resistance (theraband or light dumbbells) as patient gains control of movement with good biomechanics. Include the following exercises:
 - Elevation in scapular plane (initially supine, progress to inclined, then upright)
 - Prone rowing
 - Serratus "punches"
 - Sidelying ER
 - Prone extension, hor abduction
 - ER and Extension with theraband
 - Progress to IR on light pulleys or theraband – no sooner than 10 weeks
 - Progress to Upper Body Ergometer (low resistance) – no sooner than 12 weeks

Home Exercise Program

1. Passive stretching for full ROM
2. Light strengthening exercises as directed by PT

Phase 4:

(14-20 weeks)

- Refer to physician for advice regarding specific activity restriction
- 1. Joint mobilization (glenohumeral/scapulothoracic) and PROM as needed if full ROM not yet achieved
- 2. Progress strengthening exercises in phase 3 with increasing weight as tolerated
- 3. Add gym machines as appropriate (chest press, rowing, latissimus pulldown, triceps, biceps) and IR/ER at 90 degree abduction
- 4. May start isokinetics for IR/ER beginning in a modified position with moderate speeds (120°-240°)

Home Exercise Program

1. Stretching to maintain ROM as needed
2. Strengthening as directed by PT. Pt should have independent strengthening program prior to discharge from PT

Phase 5:

(20-24 weeks)

1. Functional progression for sports and activity-specific tasks (i.e. golf, tennis...)
2. Interval sport programs as indicated
3. Plyometrics with pitchback
4. Advanced strengthening as indicated