



**Brian Gilmer, MD** US Ski Team Physician

Karly Dawson, PA-C Teaching Associate

# **REHABILITATION GUIDELINES FOR**

# MASSIVE ROTATOR CUFF REPAIR

PHASE I (0-6 WEEKS)

Appointments	Physical therapy 2 x per week
Rehabilitation Goals	<ul> <li>Maintain integrity of repair</li> <li>Diminish pain and inflammation</li> <li>Prevent muscular inhibition</li> <li>Independent with ADL's with modifications to protect repair.</li> </ul>
Precautions	<ul> <li>Keep wound clean and dry</li> <li>Maintain arm in sling per MD orders</li> <li>Control pain and inflammation</li> <li>Avoid lifting objects</li> <li>No active overhead motions</li> <li>No supporting of body weight with hands.</li> <li>Avoid sudden movements or excessive stretching</li> <li>Ice frequently or as dictated by pain and/or swelling</li> </ul>
Suggested Therapeutic Exercises	<ul> <li>ROM:</li> <li>Gentle mobilizations as needed to improve ROM</li> <li>No shoulder AROM for 6 weeks</li> <li>PROM to tolerance for flexion and ABD in scapular plane</li> <li>Limit ER/IR in neutral to 30 degrees</li> <li>PROM to elbow wrist and hand</li> <li>Subscapularis repair: limit ER to 30 degrees, read op report, may differ</li> <li>Tenodesis: no active biceps for 6 weeks</li> <li>HEP:</li> <li>Codman's 3-4 x daily</li> <li>Passive table slides</li> <li>PROM to elbow if tenodesis, otherwise AROM</li> <li>With glenohumeral joint totally supported: elbow, wrist, and hand AROM (no elbow flexion if tenodesis performed)</li> </ul>

Cardiovascular Exercises	• N/A
Progression Criteria	<ul> <li>PROM: <ul> <li>Flexion to at least 100 degrees</li> <li>ER in scapular plane to at least 45 degrees (30 degrees if a subscapularis repair)</li> <li>IR in scapular plane to at least 45 degrees (30 degrees if infraspinatus or teres minor repair)</li> <li>Abduction to at least 90 degrees in the scapular plane</li> </ul> </li> </ul>

PHASE II (6-12 WEEKS)

Appointments	Physical therapy 2 x per week
Rehabilitation Goals	<ul> <li>Educate on safety when out of sling</li> <li>Do NOT overstress healing tissues</li> <li>Once out of the sling, may begin to use arm for gentle ADL's at waist level</li> </ul>
Precautions	<ul> <li>No lifting heavier than a cup of water</li> <li>Supporting of body weight</li> <li>Reaching behind the back</li> </ul>
Suggested Therapeutic Exercises	<ul> <li>ROM: <ul> <li>Work toward full pain-free PROM by the end of 12 weeks</li> <li>May begin active biceps if tenodesis performed</li> <li>May begin active IR if subscapularis repair</li> <li>Continue with PROM: <ul> <li>flexion and abduction in scapular plane to tolerance</li> <li>ER and IR at 60–90 degrees of abduction</li> <li>Slow progression to full ER/IR ROM by the end of 12 weeks</li> </ul> </li> <li>Strength: <ul> <li>With glenohumeral joint completely supported:</li> <li>AROM 4 way wrist exercises</li> <li>AROM bicep curls</li> </ul> </li> <li>Scapular squeezes (careful not to fire cuff from 6-10 weeks)</li> <li>8 weeks: Submaximal isometrics: elbow bent shoulder flexion/extension, IR/ER, elbow flexors/extensors</li> <li>Begin pulleys at 8-10 weeks</li> <li>Start table slides and progress to wall slides toward the end of 12 weeks</li> </ul> </li> </ul>

(Phase II continued) Suggested Therapeutic Exercises	<ul> <li>Initiate gentle rhythmic stabilization for ER/IR in 45 degrees abduction</li> <li>Sidelying scapular rhythmic stabilization (not PNF)         <ul> <li>careful not to fire cuff musculature</li> </ul> </li> <li>Can begin aquatic ROM exercises if desired</li> <li>HEP:         <ul> <li>PROM to tolerance for the following:                 <ul> <li>Codmans</li> <li>Table slides</li> <li>6-12 weeks: Begin AAROM: pulleys, wall walks and rhythmic stabilization</li> <li>10 weeks: supine flexion and sidelying ABD</li> </ul> </li> </ul> </li> </ul>
Cardiovascular Exercises	Recumbent bike (no supporting of body weight)
Progression Criteria	<ul><li>Full PROM</li><li>AAROM without compensation</li></ul>

PHASE III (12-16 WEEKS)

Appointments	Physical therapy 2 x per week
Rehabilitation Goals	<ul> <li>Full PROM by 12 weeks</li> <li>Emphasis on low resistance/high repetitions (30 reps), using no weight initially</li> <li>Strength phase</li> </ul>
Precautions	<ul> <li>Patient must demonstrate good glenohumeral and scapular mechanics prior to beginning isotonic strengthening.</li> </ul>
Suggested Therapeutic Exercises	<ul> <li>AAROM:</li> <li>UBE minimal to no resistance low arms (standing)</li> <li>Active scapular protraction/retraction</li> <li>Sidelying easy resisted scapular protraction/retraction</li> <li>Supine ER/IR with tubing in neutral abduction with a towel roll, progress to standing theraband, then sidelying</li> <li>Gentle PNF patterns</li> <li>Light weight bicep and tricep curls</li> <li>Prone rows at 30 degrees abduction</li> <li>Prone extension (elbows bent to 90 degrees)</li> </ul>

(Phase III continued) Suggested Therapeutic Exercises	<ul> <li>Prone horizontal abduction (elbow bent to 90 degrees or straight arm to 45 degrees)</li> <li>Sub-maximal rhythmic stabilizations for flexion at 45 degrees, 90 degrees, 120 degrees (nearing 16 weeks)</li> <li>Rhythmic stabilizations for ER/IR</li> <li>Palm on hip lift to 90 degree and end with palm up)</li> <li>Aquatic exercises for light AROM</li> <li>HEP:         <ul> <li>Codmans as needed</li> <li>Progress scapular exercises as determined safe</li> </ul> </li> </ul>
Cardiovascular Exercises	UBE, stationary bike
Progression Criteria	<ul> <li>Full PROM</li> <li>Full AROM without compensation</li> </ul>

PHASE IV (16-22 WEEKS)

Appointments	Physical therapy 1-2 x per week
Rehabilitation Goals	<ul> <li>Negative impingement signs</li> <li>No compensatory movements present</li> <li>Continue with total body conditioning</li> <li>Rehab geared toward return to sport or work</li> </ul>
Precautions	• None
Suggested Therapeutic Exercises	ROM: • Goal is full AROM without compensation Strength: • Begin WB wall, semi- prone, prone exercises • Progress diagonals • Progress functional reach Week 20 onward: • Plyomentric chest tosses • Resisted ER/IR at 90°/90° • Oscillation work (body blade) • Begin weight training: • Bench press, flys, lat pull-downs, PNF with pulley

Cardiovascular Exercises	As tolerated
Progression Criteria	<ul> <li>Negative impingement signs</li> <li>Full AROM without compensation</li> <li>Return of UE strength and overhead strength</li> </ul>
Return to Activity Phase (weeks 22-26)	<ul> <li>Gradual return to strenuous work activities</li> <li>Gradual return to recreational activities</li> <li>Gradual return to sport activities</li> <li>Continue strengthening and stretching</li> <li>Continue stretching, if motion is tight</li> <li>May initiate interval sport program (i.e. golf, etc.), if appropriate</li> </ul>

References:

PT name and date: Rachel Georgeson, MPT 2015 / new template March 2017 MD name and date: Timothy Crall, MD 2015 / Brian Gilmer, MD 2017

#### MAMMOTH ORTHOPEDIC INSTITUTE

85 Sierra Park Road • Mammoth Lakes, CA 93546 • 760.924.4084 162 South Main Street • Bishop, CA 93514• 760.872.7766 SIERRA PARK PHYSICAL AND OCCUPATIONAL THERAPY

85 Sierra Park Road • Mammoth Lakes, CA 93546 • 760.934.7302 162 South Main Street • Bishop, CA 93514• 760.872.2942