This protocol provides appropriate guidelines for the rehabilitation of patients following a massive rotator cuff repair. The protocol draws evidence from the current literature and accounts for preferences of the providers at Sports & Orthopaedic Specialists. The program may be modified by the referring provider for an individual patient. If questions arise regarding the application of the protocol or the progress of the patient, contact Sports & Orthopaedic Specialists:

Main line: (952) 946-9777  
Physical therapy: (952) 914-8631

PRECAUTIONS
For all rotator cuff repairs, protect the anterior supraspinatus by adhering to the following precautions:

**Rotator Cuff Repair (Supraspinatus)**

ER (0 abduction): 30° max for 4 weeks post-op. 50° max for 8 weeks.

If the following procedures were also completed, adhere to the additional precautions below:

**Subscapularis Repair**

ER (0 abduction): 0° max for 4 weeks post-op. 20° max for 8 weeks.  
Striving toward symmetrical ER ROM at 6-8 months.

ER (90 abduction): 0° max for 6 weeks post-op.

IR:  
No IR behind the back for 6 weeks post-op.
No resisted IR for 12 weeks post-op.

Extension:  
No extension behind mid-axillary line for 6 weeks post-op.

**Biceps Tenodesis/Transplantation**

No elbow flexion or supination against resistance for 6 weeks post-op.

**AC Joint Resection / Distal Clavicle Excision**

No cross body adduction for 2-3 weeks post-op  
No internal rotation behind the back for 2-3 weeks post-op

**Deltoid Precautions**

Apply to patients with super-sling, abduction pillow, or sling with bump  
No resisted abduction until 12 weeks postop.

**PT FREQUENCY & DURATION**

-Eight to 15 physical therapy visits over 6-12 months  
-Begin physical therapy 6+ weeks after surgery as instructed by surgeon
REHAB PRINCIPLES
- Focus on active engagement of the patient through patient education and therapeutic exercise. Establish a home exercise program that can be progressed gradually throughout the postoperative period.

- Respect tissue healing. The surgeons at Sports & Orthopaedic Specialists uniformly prefer a slow progression of postop patients with minimal postoperative pain.

- Postoperative pain may be experienced. However physical therapy, including the home exercise program, should result in minimal to no symptom exacerbation. The patient should call the PT for recommendations if pain increases during or after exercise.

- The therapeutic exercises listed in this protocol convey the appropriate load for the shoulder given the time elapsed since surgery in regards to tissue healing. It is acceptable for a patient to progress more slowly. However, it is not acceptable for a patient to progress more quickly unless directly indicated by the surgeon.

- Recommended max of 6 exercises for home exercise program. Select a well-rounded program that targets each area of insufficiency identified during physical exam.

MODALITIES
Cold Therapy / Ice: Instruct patient to use ice daily until pain free or 8 weeks after surgery.
Other Modalities: DO NOT USE

MANUAL THERAPY
- No passive range of motion (physiologic/long arc).
- Joint mobilization to address shoulder hypomobility after 12 weeks ONLY if prescribed by surgeon
- Soft tissue techniques to upper trapezius/levator scapula/pect minor are permitted

THERAPEUTIC ACTIVITY AND PATIENT EDUCATION
Patient education is very important in getting the patient to take an active role in therapy and recovery. Educate the patient at the appropriate level regarding:

- Anatomy of the shoulder girdle
- Basics of surgical procedure in layman’s terms
- Surgical precautions
- Shoulder girdle mechanics: Typical and pathomechanical
- The inhibitory effect of pain on the rotator cuff
- Avoidance of pain provoking activities
- Effect of posture on shoulder girdle mechanics
- Preferred positioning of the shoulder during sleep
MASSIVE ROTATOR CUFF REPAIR PROTOCOL

THERAPEUTIC EXERCISE
-Free Weights: Use only as directed throughout protocol.

-Exercise Band: DO NOT USE
The use of Yellow Theraband®, the least resistive color in the Theraband series, results in 2.9 pounds of resistance when elongated by 100%. In addition, length-tension principles of muscle function do not align with exercise band properties; the muscle is asked to provide maximum force at a shortened and inefficient length. Therefore, exercise band use is not permitted for use during rotator cuff conditioning.

-Pulleys: DO NOT USE

REHABILITATION PROGRESSIONS
For the massive rotator cuff repair, the surgeon determines the length of time in a sling based on basic principles of tissue healing as well the size of the tear and tissue quality. Six weeks in a sling is typical after a massive rotator cuff repair. However, the surgeon may extend the time in sling to protect the repair if the tear is larger or tissue quality is poor. If the patient is instructed to wear a sling for more than 6 weeks, the therapist should delay this protocol by the number of weeks in a sling beyond six.

Page numbers below reference the THERAPEUTIC EXERCISE HANDOUT. A PDF of this handout containing instructions and pictures for each exercise can be printed from the Sports & Orthopaedic Specialists website: www.sportsandortho.com Click on Rehabilitation Center.

WEEK 0-6+ (CONTINUOUS USE OF SLING):
-Patient receives postop instructions after surgery that include:

-Wear sling continuously for 6+ weeks as instructed by surgeon. Sling may be removed to shower & dress.

-Begin pendulum exercises the day after surgery. Ten reps in each direction four times per day.

-AROM of the elbow, wrist, and hand.

-Application of ice with shoulder ice wrap (Bird & Cronin).

-Remove wound dressing 2 days after surgery (or as instructed). Leave steri-strips in place.

-Ok to drive once off narcotic pain medication. Check with auto insurance regarding driving in sling.

-Ok to write, type, eat, shave, wash face, brush teeth within pain tolerance.
WEEK 6-7:

- Begin physical therapy 0-2 weeks after discontinued use of sling
- Educate the patient regarding:
  - Allowable ADL’s (writing, typing, self-cares, not to lift anything heavier than a coffee cup).
  - No overhead reaching.
  - Surgical precautions (see page 1)
- If early postoperative stiffness is noted, contact the surgeon.
- HEP 5-7x/week (up to two days off per week to allow for good/bad days)
- Ice after PT/HEP
- Appropriate exercises:

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<tr>
<th>Page</th>
<th>Exercise</th>
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<tr>
<td>1</td>
<td>Pendulum/Codman</td>
<td>20 each direction</td>
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<tr>
<td>20</td>
<td>Ceiling punch (active assisted)</td>
<td>2x10 with goal of 2x20</td>
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<tr>
<td>17</td>
<td>Seated ER to neutral</td>
<td>2x10 with goal of 2x30</td>
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<td>22</td>
<td>Table circles</td>
<td>10 with goal of 20 clockwise and counterclockwise</td>
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<tr>
<td>9</td>
<td>Prayer stretch</td>
<td>5x10” with goal of 10x10”</td>
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WEEK 8-16:

- Continue physical therapy
- Educate the patient regarding:
  - Allowable ADL’s (not to lift anything heavier than a coffee cup)
  - No overhead reaching
  - Surgical precautions (see page 1)
- If postoperative stiffness is noted, contact the surgeon.
- Assess active elevation looking for compensatory shoulder hiking.
- HEP 5-7x/week (up to two days off per week to allow for good/bad days)
- Ice after PT/HEP
- Appropriate exercises (if exercises from week 6-7 result in a max of 3/10 pain):

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<td>Reverse Codman (active)</td>
<td>2x10 with goal of 2x20</td>
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<tr>
<td>17</td>
<td>Seated ER – full pain free ROM</td>
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<td>13</td>
<td>Table press</td>
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<tr>
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<td>Isometric adduction</td>
<td>If compensatory shoulder hiking is noted</td>
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<td>11</td>
<td>Anterior deltoid isometric</td>
<td>Gentle</td>
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<tr>
<td>11</td>
<td>Middle deltoid isometric</td>
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4-5 MONTHS:
-Continue physical therapy.
-Educate the patient regarding:
  - Allowable ADL’s, not to lift anything heavier than one pound.
  - Limited overhead reaching – max of one plate/cup
- If postoperative stiffness is noted, contact the surgeon.
- HEP 3-4x/week (every other day)
- Ice after PT/HEP as needed
- Appropriate exercises (if exercises from week 8-16 result in a max of 3/10 pain):

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<tr>
<td>20</td>
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<td>Side lying ER</td>
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<td>19</td>
<td>Bear hug</td>
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6+ MONTHS:

-Continue physical therapy.
-Educate the patient regarding:
  -ADL’s as pain free
  -Gradual return to activities as directed by surgeon
-HEP 3-4x/week (every other day)
-Ice after PT/HEP as needed
-Appropriate exercises (if exercises from 3-4 months result in a max of 3/10 pain):

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-After discharge from formal physical therapy, continue HEP 2x/week until TWO year anniversary of surgery.

RETURN TO SPORT

Must be discussed with physician.