Arthroscopic Rotator Cuff Repair Protocol

Michael J. Huang, MD
Sports Medicine
Colorado Springs Orthopaedic Group
4110 Briargate Parkway, Suite 300
Colorado Springs, CO 80920
(719) 632-7669
Fax: (719) 632-0088
www.huangortho.com

SHOULDER SURGERY

The recovery process after Shoulder surgery is straight-forward and this document is designed to help you and your physical therapist to get the best outcome!

Please visit Dr. Huang's website for post-operative care and early motion exercises. This page has many resources for you including training videos on dressing removal, crutch instruction, brace instruction, and even range of motion exercises!

The website is: https://www.huangortho.com/shoulder-surgery-patients

General recommendations:

- Do not hesitate to contact Dr. Huang's team with any questions or concerns
- Less is more! Do not push too hard, rest is an important aspect to recovery
- Manual therapy is an important part of your recovery, make sure your therapist includes range of motion, soft tissue manipulation, and joint mobilizations throughout your recovery.
- Setbacks are normal, recovery is never a smooth and straight line. Try not to get frustrated if you hit a setback and aim to work through it with your therapist

AFTER SURGERY

1. Medications: we give you a variety of medications to try to make the recovery go smoothly. Remember that most of these medications are AS NEEDED. So, if you do not need them, do not use them.
    a. Pain medication (usually oxycodone or hyrdrocodone). This is the narcotic. It is to take the edge off of surgical pain. It will not eliminate the pain. These are addictive so please use sparingly.
    b. Stool softener (Colace). While taking the narcotic, please take a stool softener to counteract the constipation caused by the pain medication.
    c. Anti-nausea (ondansetron or phenergan). This is provided if you have nausea after surgery.
    d. Muscle relaxant (cyclobenzaprine or other). This is provided to help with muscle spasms that can occur after surgery. This can be taken with the pain medication or all by itself. Please be aware that it makes most patients sleepy.
    e. Blood thinner (aspirin or other). All surgical patients are at risk for blood clots. Based on your personal risk, we will prescribe one. Duration is based on the complexity of the surgery and the duration of risk.
2. Shoulder Sling: Prior to leaving the operating room a shoulder sling will be applied.
    a. The sling helps to keep the shoulder in relative position. It WILL NOT be rigid.

b. For the first 24 hours, we recommend keeping it on at all times. After removing the dressing on the first day, you may remove the remove. The sling should be on when you are up and walking/standing. The sling should be on when you laying down and sleeping. See video on Dr. Huang's website (www.huangortho.com)

c. When sitting or reclining, the sling is NOT necessary and may be removed. This includes removing it during bathroom activities and also when showering.

3. If you chose to have a N'Ice or GameReady machine, we will help you set this up ahead of time. Please give us advanced notice.

   a. For either machine, you can leave the cold compression on for 30-45 minutes before giving it a break. **Please note that the N'Ice or GameReady may not be reimbursed by your insurance company and that the patient may incur the cost of these devices.**

   b. Ice packs or frozen bag of peas can be a great way to provide cold therapy to the knee. We recommend keeping these on for 20 minutes at a time and then allowing the knee to warm back up for another 20 minutes. Always keep a wash cloth or other layer between the skin and the ice pack.

RETURN TO WORK

1. As far as returning to work, if you have a desk type job you can return to work when your pain medication requirements decrease. Typically, this is between 5 - 10 days after surgery.
2. Patients who have jobs where light duty is not permitted will be out of work for a minimum of 6 - 12 weeks. Please discuss this with us as soon as possible so we can help you get all the details right!

WHEN CAN I DRIVE A CAR?

REMEMBER, IT IS ILLEGAL TO TAKE PRESCRIPTION PAIN MEDICATIONS AND OPERATE A MOTOR VEHICLE!

1. First, you must not be taking any prescription pain medications.
2. Patients who have had surgery on the shoulder should not drive until they have good muscular control of the arm and feel that they can control the vehicle safely. This usually takes 1-6 weeks.

Arthroscopic Rotator Cuff Repair Protocol

The intent of this protocol is to provide the therapist and patient with guidelines for the post-operative rehabilitation course after arthroscopic rotator cuff repair. This protocol is based on a review of the best available scientific studies regarding shoulder rehabilitation. It is by no means intended to serve as a substitute for one's clinical decision making regarding the progression of a patient's post-operative course. It should serve as a guideline based on the individual's physical exam/findings, progress to date, and the absence of post-operative complications. If the therapist requires assistance in the progression of a post-operative patient they should consult with Dr. Huang.

Progression to the next phase based on Clinical Criteria and/or Time Frames as Appropriate.

Phase I – Immediate Post Surgical (Weeks 1-4):

Goals: Maintain / protect integrity of repair
- Gradually increase passive range of motion (PROM)
- Diminish pain and inflammation
- Prevent muscular inhibition
- Become independent with activities of daily living with modifications

Precautions:
- Maintain arm in abduction sling / brace, remove only for exercise
- No active range of motion (AROM) of shoulder
- No lifting of objects
- No shoulder motion behind back
- No excessive stretching or sudden movements
- No supporting of any weight
- No lifting of body weight by hands
- Keep incision clean and dry

Criteria for progression to the next phase (II):
- Passive forward flexion to at least 125 degrees
- Passive external rotation (ER) in scapular plane to at least 75 degrees
- Passive internal rotation (IR) in scapular plane to at least 75 degrees
- Passive Abduction to at least 90 degrees in the scapular plane

Phase I – Immediate Post Surgical (Weeks 1-4) continued:

DAYS 1 TO 6:

- Abduction brace/sling
- Pendulum exercises, table slides
- Finger, wrist, and elbow AROM
- Begin scapula musculature isometrics / sets; cervical ROM
- Cryotherapy for pain and inflammation
  -Day 1-2: as much as possible (20 minutes of every hour)
  -Day 3-6: post activity, or for pain
- Sleeping in abduction sling
- Patient Education: posture, joint protection, positioning, hygiene, etc.

DAYS 7 TO 28:

- Continue use of abduction sling / brace
- Pendulum exercises and table slides
- Begin passive ROM to tolerance (these should be done supine and should be pain free)
  - Flexion to at least 90 degrees, preferably to full forward elevation
  - ER in scapular plane to at least 35 degrees
  - IR to body/chest
- Continue Elbow, wrist, and finger AROM / resisted
- Cryotherapy as needed for pain control and inflammation
- May resume general conditioning program – walking, stationary bicycle, etc.
- Aquatherapy / pool therapy may begin at 3 weeks postop

Phase II – Protection / Active motion (weeks 4 - 10):

Goals: Allow healing of soft tissue
Do not overstress healing tissue
Gradually restore full passive ROM (week 4-5)
Decrease pain and inflammation

Precautions:
No lifting
No supporting of body weight by hands and arms
No sudden jerking motions
No excessive behind the back movements
Avoid upper extremity bike or upper extremity ergometer at all times.

Criteria for progression to the next phase (III):
Full active range of motion

WEEK 4-6:

- Continue use of sling/brace full time until end of week 4
- Between weeks 4 and 6 may use sling/brace for comfort only
- Discontinue sling/ brace at end of week 6
- Initiate active assisted range of motion (AAROM) flexion in supine position
- Progressive passive ROM until approximately Full ROM at Week 4-5.
  -Gentle Scapular/glenohumeral joint mobilization as indicated to regain full passive ROM
- Initiate prone rowing to neutral arm position
- Continue cryotherapy as needed
- May use heat prior to ROM exercises
- May use pool (aquatherapy) for light active ROM exercises
- Ice after exercise

Weeks 6-8

- Continue active and active assisted ROM and stretching exercises
- Begin rotator cuff isometrics
- Continue periscapular exercises
- Initiate active ROM exercises
  - flexion scapular plane
  - abduction
  - external rotation
  - internal rotation

Phase III – Early strengthening (weeks 10-14):

Goals: Full active ROM (week 10-12)
Maintain full passive ROM
Dynamic shoulder stability
Gradual restoration of shoulder strength, power, and endurance
Optimize neuromuscular control
Gradual return to functional activities

Precautions:
No heavy lifting of objects (no heavier than 5 lbs.)
No sudden lifting or pushing activities
No sudden jerking motions
No overhead lifting
Avoid upper extremity bike or upper extremity ergometer at all times.

Criteria for progression to the next phase (IV):
Able to tolerate the progression to low-level functional activities
Demonstrates return of strength/dynamic shoulder stability
Re-establish dynamic shoulder stability
Demonstrates adequate strength and dynamic stability for progression to higher demanding work/sport specific activities.

WEEK 10:

- Continue stretching and passive ROM (as needed)
- Dynamic stabilization exercises
- Initiate strengthening program
  - External rotation (ER)/Internal rotation (IR) with therabands/sport cord/tubing
  - ER side-lying (lateral decubitus)
  - Lateral raises*
  - Full can in scapular plane* (avoid empty can abduction exercises at all times)
  - Prone rowing
  - Prone horizontal abduction
  - Prone extension
  - Elbow flexion
  - Elbow extension

*Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonics; if unable, continue glenohumeral joint exercises

WEEK 12:

- Continue all exercise listed above
- Initiate light functional activities as Dr. Huang permits

WEEK 14:

- Continue all exercise listed above
- Progress to fundamental shoulder exercises

Phase IV – Advanced strengthening (weeks 16-22):

Goals: Maintain full non-painful active ROM
Advance conditioning exercises for enhanced functional use
Improve muscular strength, power, and endurance
Gradual return to full functional activities

WEEK 16:

- Continue ROM and self-capsular stretching for ROM maintenance
- Continue progression of strengthening
- Advance proprioceptive, neuromuscular activities
- Light sports (golf chipping/putting, tennis ground strokes), if doing well

WEEK 20:

- Continue strengthening and stretching
- Continue stretching, if motion is tight
- May initiate interval sport program (i.e. golf, doubles tennis, etc.), if appropriate.