

STEVEN CHUDIK MD

SHOULDER, KNEE & SPORTS MEDICINE

Augmentation and Grafting of Massive Rotator Cuff Repairs with Tendon Grafts

Indications for Surgery

The rotator cuff is a group of four muscles that run from the scapula (shoulder blade) and attach to the humeral head (top of upper arm bone) by their tendons. When the rotator cuff is torn and left untreated for an extended period of time, the tendon retracts away from its attachment point and the muscle atrophies and degenerates (shrinks, weakens, and irreversibly turns to useless fat and scar tissue). This makes the repair technically more difficult and, in some cases, impossible. In these cases, an alternative method of repair is utilized. When one of the rotator cuff tendons is largely retracted and unrepairable, surgery using an extra portion of the biceps tendon, dermal allograft, or Iliotibial band to reinforce the rotator cuff repair can be helpful.

MRI of intact rotator cuff tendon.



MRI of massive supraspinatus tendon tear retracted almost to glenoid.

Contraindications to Surgery

- Infection
- Shoulder stiffness
- Inability or unwillingness to complete the postoperative program including immobilizing the shoulder in a sling for six to eight weeks and performing physical therapy three times per week for four to six months
- Patients with poor general health which is not sufficient to proceed with surgery
- Patients with advanced arthritis of the shoulder joint
- Chronic migration of the humeral head from the glenoid (socket)



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Potential Surgical Risks and Complications

- Infection
- Injury to nerves (numbness, weakness, paralysis) of the shoulder and arm from the nerve block
- Continued or recurrence of pain
- Re-tear of the rotator cuff tendon/graft
- Detachment of the deltoid muscle (if open surgery is performed)
- Stiffness or loss of motion of the shoulder
- Inability to return to the same level of athletics or work
- Persistent weakness of the shoulder
- Late acromioclavicular (AC) joint pain
- Finding an irreparable tear at the time of surgery. Preoperatively, MRI is limited and reparability of the rotator cuff tendon is not always completely predictable. Fortunately, most tears are technically repairable.
- Finding damage to other structures such as the biceps tendon, labrum, and articular cartilage that may require further treatment at the time of surgery.
- Arthritis

Hospitalization and Anesthesia

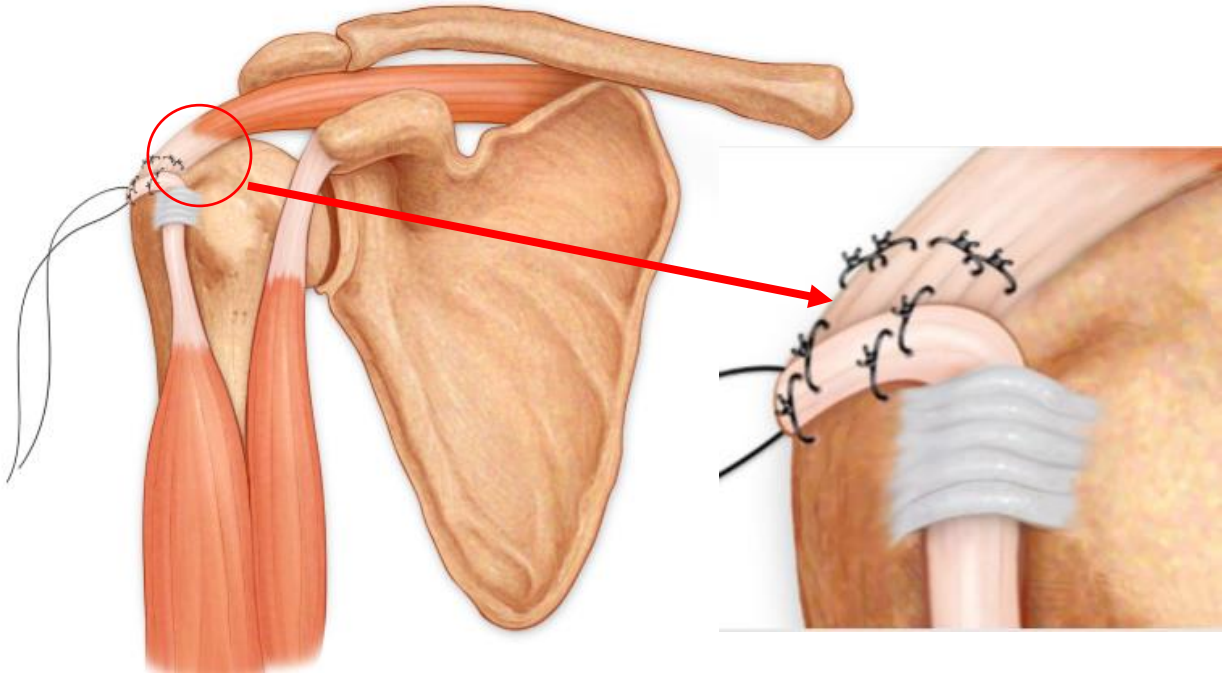
- Outpatient surgery (you go home the same day)
- General anesthetic with interscalene block (See *Your Surgical Experience* booklet)

General Surgical Technique

Dr. Chudik approaches rotator cuff tears arthroscopically through small incisions (arthroscopic portals). The surgery is generally performed as outpatient surgery (you go home the same day). Dr. Chudik uses the small incisions to look in the shoulder joint with a camera and special instruments are used to identify, release, mobilize and repair as much of the rotator cuff as possible. There are times when a large portion of the rotator cuff cannot be repaired. For these circumstances, Dr. Chudik developed and published an arthroscopic method to reinforce the rotator cuff repair site with an extra portion of the local biceps tendon to reconstruct (re-make) the rotator cuff tendon or make it thicker, more robust and less likely to fail. Dermal allografts on the iliotibial band are other options.



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Viewed from anterior aspect of right shoulder, this schematic demonstrates augmentation of double-row rotator cuff with long head of biceps tendon. The biceps tendon also can be left attached to the glenoid and used to reconstruct a portion of the tendon.

Preoperative Instructions

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin[®], Lovenox[®], Xarelto[®] according to the prescribing doctor's directions
- Stop anti-inflammatory medicines such as ibuprofen, Advil[®], Motrin[®], Naprosyn[®], Alleve[®], etc.)
- Stop nutritional supplements and drinks like Vitamin C, ginseng, ginkgo biloba, etc.
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper tissue healing
- **Do not eat or drink anything from midnight, the evening before surgery**



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Post-Operative Course

- You will use a sling at all times except for bathing, dressing and exercises for eight weeks following surgery, especially while you sleep. This prohibits driving.
- You **WILL NOT** be allowed to actively move your repaired shoulder (moving it with its own shoulder muscles) and possibly your elbow (if the biceps tendon is involved) for at least eight weeks following surgery in order to protect the repair and allow healing.
- You may feel more comfortable sleeping sitting upright (on a couch or recliner chair) after surgery.
- Keep the wound clean and dry for three days following all arthroscopic surgery and ten to 14 days following open surgery. You may shower lightly after three days (all arthroscopic) and 14 days (open surgery), but wounds cannot be submerged under water for three weeks.
- Driving after six to eight weeks when out of the sling.
- Return to school/sedentary work in less than one to two weeks as long as you are in your sling and do not use the extremity. No typing, writing or purposeful movement.
- Physical therapy should begin two to three days after surgery and continue for four to six months. The success of rotator cuff repair is highly dependent on the post-operative rehabilitation. It is crucial to follow through on and maintain a proper therapy schedule.

Return to Activity

You may return to unlimited activities when there is no pain and full shoulder range of motion, muscle strength and endurance, and functional use has been restored. This usually requires six months to a year following this type of repair. Dr. Chudik will tell you when it is safe to resume all activities. Dr. Chudik has special protocols for returning to golf.

Scheduling Surgery

Contact Dr. Chudik's surgery scheduler at 630-324-0402 or contactus@chudikmd.com to:

- Schedule the date and location of surgery (the hospital will call the day before with the confirmed arrival time)
- Schedule a pre-operative appointment
- Schedule a post-operative appointment to remove sutures and review post-operative instructions

Notify My Office if Symptoms Worsen



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