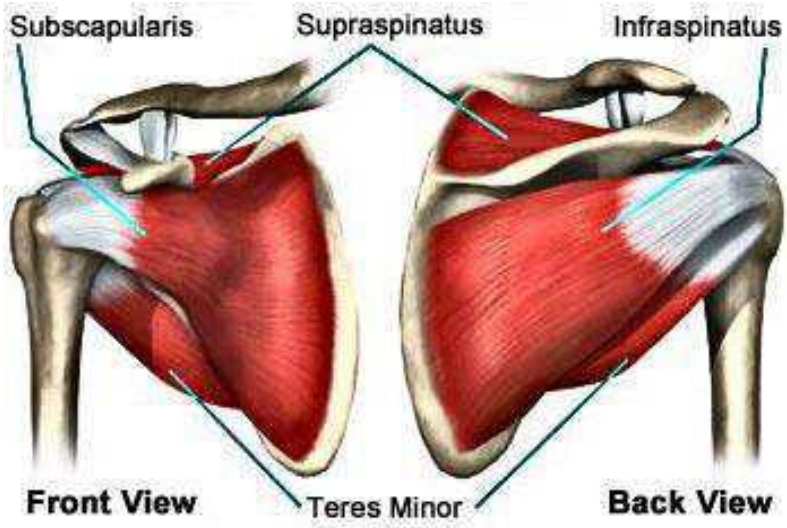
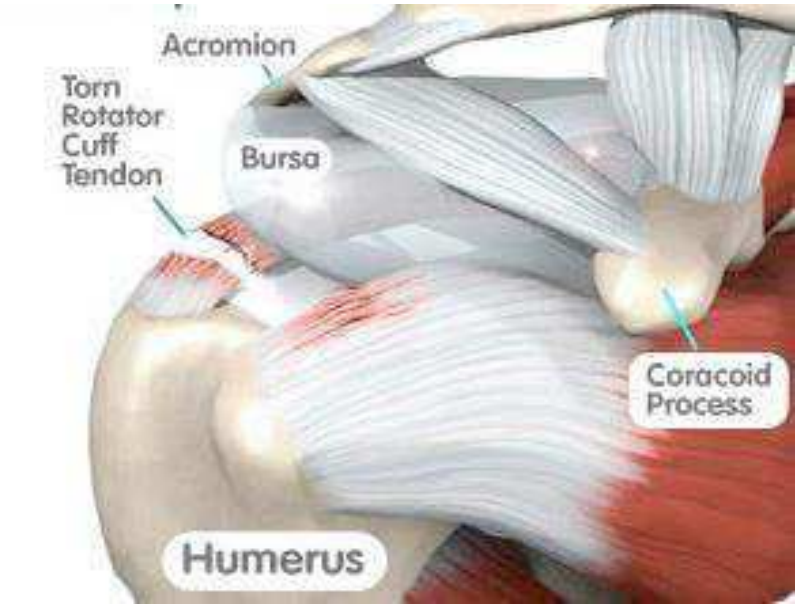
Superior Capsule Reconstruction

The shoulder is a “ball and socket” joint. The “ball” is at the top of the arm bone (humerus) and it fits into a “socket” called the glenoid, which is part of the shoulder blade (Scapula)

The Rotator cuff is the group of 4 tendons in the shoulder that provide support and helps with range of motion at the shoulder.



Injuries to these tendons may result in a tear and the condition is called as rotator cuff tear. Rotator cuff tears most commonly occur with repeated use of arm for over-head activities. Severe trauma (fall, car accident) can be another cause of rotator cuff tears. Rotator cuff tears can cause severe pain, weakness of the arm, and crackling sensation on moving shoulder in certain positions. There may be stiffness, swelling, loss of movements, and tenderness in the front of the shoulder.



ROTATOR CUFF TEAR

SYMPTOMS

- Pain at night is the most common complaint
- Pain with overhead activity – pain may be gradual in onset or acute after an injury
- There also may be stiffness, tenderness, and weakness

Sometimes these rotator cuff tears become so large they are not fixable. When patients have "unfixable" rotator cuff tears, damage also occurs in the upper lining of the shoulder joint, called the superior capsule. The superior capsule helps keep the humeral head "ball" centered on the glenoid "socket" which helps keep normal mechanics of the shoulder to raise your arm. When this capsule is torn (as is common in large rotator cuff tears) the humeral head "ball" can migrate up on the glenoid "socket" and results in pain, weakness, loss of motion, and limited activity.

TREATMENT

Generally patients with large unfixable rotator cuff tears have very limited options. A newer procedure called, a Superior capsular reconstruction, has been developed to treat these "unfixable" rotator cuff tears. By repairing the superior capsule, it is felt the surgery can help stabilize the shoulder joint and make it easier to raise the arm.

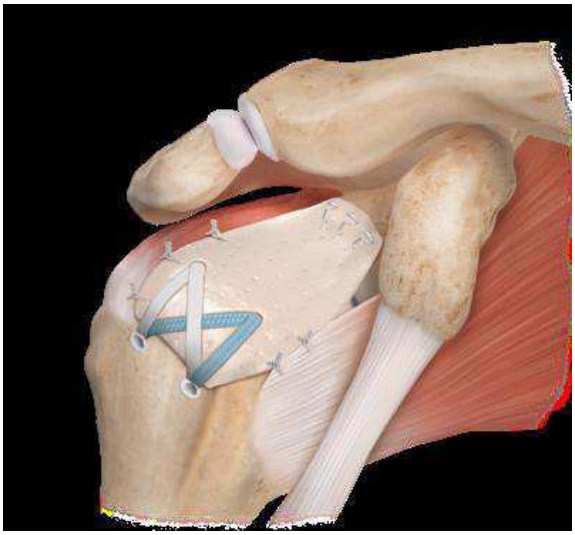
This procedure, which is done on an outpatient basis and uses a cadaver graft (human skin tissue) to reconstruct the superior capsule when the rotator cuff tendon tears are too large to repair. By reconstructing the capsule, a cushion is placed between the ball of the shoulder joint and the acromion bone. Additionally, the joint is held in proper position, allowing for more normal shoulder function.

It is sewn into the top of the socket and then into the insertion of the rotator cuff and again essentially

serves as a blanket or roof to help recover the humeral head. Theoretically this helps maintain the natural mechanics of the shoulder and can restore function and reduce pain.

While this is a newer surgery, the early outcomes in multiple studies have been promising with reducing pain, maintaining range of motion and helping to prevent progression of arthritis.

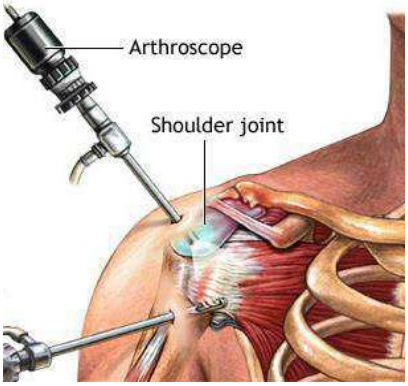
TORN ROTATOR CUFF NOT FIXABLE



AFTER SUPERIOR CAPSULE RECONSTRUCTION

SURGERY

The superior capsule reconstruction is usually an arthroscopic procedure. In arthroscopy, small incisions are made. An arthroscope (camera) is placed inside the shoulder and fluid is pumped into the shoulder with expands the shoulder giving the surgeon a clear view and room to work.



COMPLICATIONS can include the following:

1. Infection
2. Tear of the superior capsule reconstruction
3. Continued Stiffness
4. Continued pain
5. Fracture of either the humerus (arm) or the glenoid (socket)
6. Nerve injury

BEFORE SURGERY

If you and Dr Muh decide you are going to have surgery, several steps may be necessary before surgery:

1. You may need some special xrays, a CT scan or an MRI
2. You may need to see your primary care physician if you have a history of medical problems (high blood pressure, diabetes, asthma, etc). They may need to draw some blood.
3. In some cases you may need to obtain an EMG (electromyography) study in order to determine if the nerves which make the muscles work properly in your shoulder are functioning normally.
4. You will schedule your physical therapy to start 1 week after surgery

Be sure to tell the office the medications you take. Some medicines may need to be stopped before surgery. For example, the following over-the counter medicines may cause excessive bleeding and should be stopped 2 weeks before surgery:

1. Non-steroidal anti-inflammatory medications such as aspirin, ibuprofen (Motrin), and naproxen sodium (Aleve)
2. Blood thinners (Coumadin, Plavix, pradaxa, lovenox, etc)
3. Most arthritis medications
4. Some herbal medicines (Vitamin c, Ginseng, etc)

YOUR SURGERY DAY

This is an outpatient surgery, therefore you will go home the same day as surgery. On the day of surgery you will arrive at the hospital 2-3 hours prior to your scheduled surgery to check in and be prepared by the anesthesiologist and nursing staff. It is important to follow the instructions given to you by the hospital for the night before surgery. You should not eat or drink anything after midnight on the night before your surgery. Your primary care physician or the hospital will tell you whether or not to take your usual medications before surgery. Wear loose-fitting clothes and a button-front shirt when you go to the hospital for your surgery. After surgery, you will be wearing a sling and will have limited use of your arm

The surgery usually takes 1 – 2 hours. The time spent in the recovery room is usually an additional 1 – 3 hours. Pain is usually controlled with a combination of oral medications as well as a nerve block that the anesthesiologist gives before surgery. The nerve block may last well into the evening after your surgery. You will be discharged with oral pain medications to take at home.

When you are discharged from the hospital you will need someone to take you home. This can be a family or friend. Some patients will need assistance at home, so family should be aware that you will need help with simple daily living chores such as dressing, cooking, and feeding yourself. You will be given instructions on coming out of the sling daily to work on elbow, wrist, and hand range of motion to avoid stiffness of those joints.

PHYSICAL THERAPY

With this type of surgery, you should have your first physical therapy appointment about 1 week after surgery. This should be scheduled before your surgery day. After 1 week you will see Dr. Muh for a post-operative visit. Dr. Muh will provide a detailed physical therapy protocol to be followed by your therapist.

AFTER SURGERY

It is important to be on the lookout for signs and symptoms of infection following surgery. These include: fever, chills, nausea, vomiting, diarrhea, redness around your incision, and yellow/green drainage from your incision. Should you have any of these symptoms please contact Dr. Muh's office immediately.

Dressings stay on for 3 days: The dressing on your shoulder is placed in a sterile manner at the end of the procedure. It should remain on to allow for the wounds to be protected for 72 hours.

DO NOT remove the band-aid like portion of the dressing. These are Steri-strips and allow for more cosmetic healing to your wounds. They will fall off on their own after 10-14 days. Dissolving stitches are used, so no stitches will need to be removed after surgery.

Keep wounds dry until follow-up: Once the dressings are removed, keeping the wound dry is important. Identifying redness or drainage is the purpose of removing the dressing prior to follow-up. This does not mean that you should be allowing the wound to get damp. You are allowed to shower 3 days after surgery. Do not use soap on the wounds and immediately dry the area with a clean towel. There are few exceptions to this that will be communicated on your individualized post-operative instructions.

No submerging the wounds in water for 6 weeks. This includes bathing, Jacuzzi, whirlpool, or sauna use. The water involved in these activities can encourage an infection to occur.

Icing the shoulder is recommended. All patients will be sent home with an ice machine (cryotherapy). This can be performed at a twenty minutes on-twenty minutes off-cycle. There must always be some form of protection between the ice and the skin.

Fevers over 101 F, chills, and night sweats should be reported to the doctor. Difficulty breathing, chest pain, or new onset calf pain should be reported to the doctor. Walking is important to prevent the development of blood clots in the lower legs. Resting in bed and not moving for days after surgery is not recommended

Flying immediately post-operatively is not allowed and should be discussed with the surgeon Pain medicines will be prescribed post-operatively. Typically, Percocet can be used 1-2 pills every 4 hours as needed. Narcotic pain medications should be weaned off per the Surgeon depending on the procedure performed. Physical therapy should begin 1 week after surgery. A Therapy referral is always given at the time the surgery is booked in the office. Please hold on to this referral for the therapist. Calling to reserve an appointment should be done prior to the surgical date

DO's

1. DO follow the program of home exercises prescribed for you. You may need to do the exercises 2 – 3 times a day
1. DO keep the sling on at all times for the first 6 weeks. You can only come out of the sling for showers and to perform your shoulder exercises

DON'Ts

1. DON'T come out of the sling unless you are doing your exercises or for showers
2. DON'T lift anything with the arm.