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Shoulder and Elbow Specialist

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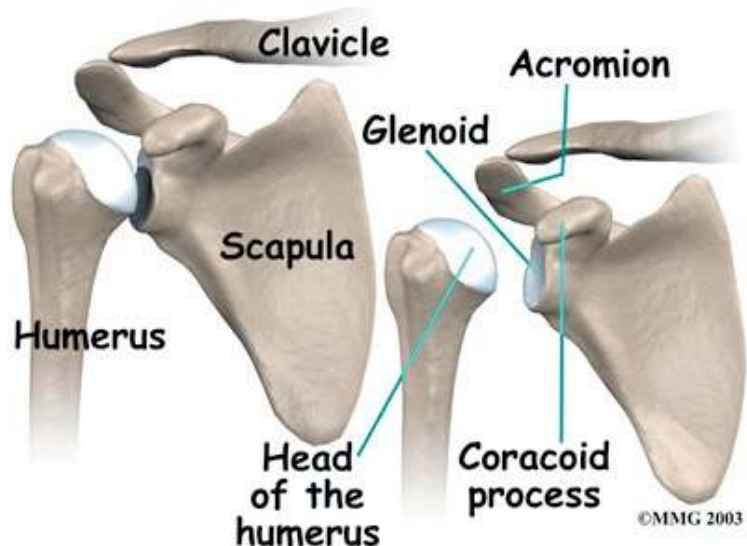
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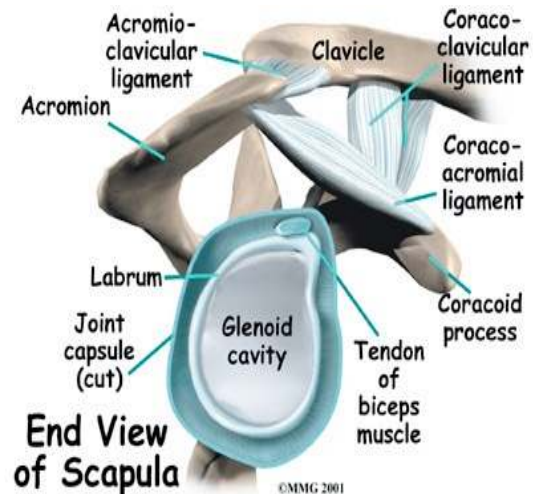
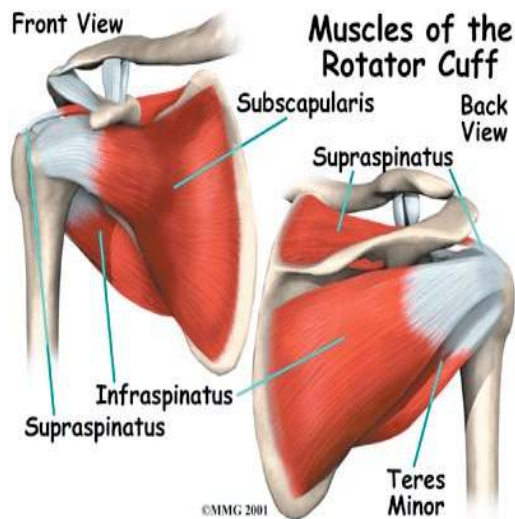
## Shoulder Arthroscopy

Shoulder arthroscopy is a minimally invasive surgical technique that allows your surgeon to evaluate and in some cases treat certain shoulder conditions. During the procedure your surgeon will make small incisions in your shoulder called portals. A tiny camera is then placed in the portals and the interior space of the shoulder can be visualized, proper diagnosis made, and then surgically repaired.

## Anatomy of the Shoulder

The shoulder is made up of two joints, the acromioclavicular joint and the glenohumeral joint. The acromioclavicular joint is where the acromion, part of the shoulder blade (scapula) and the collar bone (clavicle) meet. The glenohumeral joint is where the ball (humeral head) and the socket (the glenoid) meet. The rotator cuff connects the humerus to the scapula and is made up of the tendons of four muscles, the supraspinatus, infraspinatus, teres minor and the subscapularis. Tendons attach muscle to bone. Muscles in turn move bones by pulling on the tendons. The muscles of the rotator cuff keep the humerus tightly in the socket. The socket, or the glenoid, is shallow and flat. It is rimmed with soft tissue called the labrum that makes a deeper socket that molds to fit the humeral head. The joint capsule surrounds the shoulder joint. It is a fluid filled sac that lubricates the joint. It is made up of ligaments. Ligaments are soft tissue that holds bone to bone. Shoulder injuries can occur to any part of the shoulder.





### Common Conditions that Require Shoulder Arthroscopy

- *Frozen Shoulder* is a condition where the patient develops synovitis resulting in a contracture or tightening of the joint capsule, the tissue that makes up the joint space. This contracture restricts motion. To restore mobility the surgeon uses arthroscopy to release the contractures and scar tissue that are present.
- *Shoulder Impingement rotator cuff tendinitis* is a condition where the rotator cuff becomes inflamed or abraded. The overlying acromion is shaved down and smoothed down to remove bone spurs and the bursa is débrided to eliminate the source of inflammation.
- *Shoulder Debridement* can involve bone or soft tissue. In an arthritic shoulder arthroscopy can be used to remove frayed cartilage or loose bodies that cause discomfort. Debridement can also be performed on the rotator cuff or biceps tendon that has frayed or has formed calcium deposits. Arthroscopy can be used to smooth rough surfaces or remove painful calcium deposits.
- *Acromioclavicular joint arthritis* - painful arthritis where the collarbone meets the shoulder blade. This condition can be treated by removing a small wedge of bone from the end of the collar bone. This creates a space between the collar bone and the shoulder blade and helps prevent painful contact or grinding of these bones that occur with certain movements.

- *Biceps tendon disease* is inflammation, fraying or tearing of the biceps tendon. Half of the biceps muscle actually passes through the ball and socket joint as a thin tendon that glides in a bony groove during shoulder motion. If the tendon is damaged, this can be a significant source of shoulder pain. Biceps problems are more common in patients that also have damage to the rotator cuff tendons. Treatment of this problem involves either releasing the tendon (tenotomy) or reattaching the tendon (tenodesis) to a new spot. Both are effective in treating biceps pain. The decision to perform a tenotomy or tenodesis depends on the age and activity level of the patient and should be discussed with you by your surgeon prior to surgery.
- *Rotator cuff tears* can occur as we age due to degenerative change, and in some instances can occur or enlarge due to trauma. The rotator cuff is a group of four tendons (supraspinatus, infraspinatus, teres minor, and subscapularis) that help with rotational activities involving the shoulder joint. The tendons also help center the ball of the humerus on the socket (glenoid). In certain instances, large tears can cause migration of the humerus and cause a form of arthritis called rotator cuff tear arthropathy. Repairing these tendons can potentially prevent this disease from occurring. More immediate benefits of repair include improved shoulder function and decreased pain which is maintained even ten years after surgery (compared to non-operative treatment with physical therapy and steroid injections).



*Torn rotator cuff (left), repaired rotator cuff (right)*

## **Preoperative Planning**

Depending on the location of your surgery it may be required to have preoperative testing. In some cases blood work, EKG (heart tracing), or a chest X-ray may be needed. A chest x-ray is only done if you have a lung condition or a history of cigarette smoking. If any of these tests are needed they will be scheduled for you and will be done during pre-testing when you meet with the anesthesia staff. If it has been some time since you have seen your primary care physician and you have a lot of medical problems, it would be best that you see your medical doctor before your pre-test date.

You will arrive at the hospital approximately two hours before your scheduled surgery time. Procedures are performed on a “to follow” basis. Occasionally, a procedure scheduled ahead of yours may take longer than expected, so there may be some delay before your surgery. Regardless, it is important that you arrive on time. Sometimes an earlier procedure will cancel and we run ahead of schedule. You should not have anything to eat or drink after midnight the night before surgery. You may be advised to take some of your medications with a sip of water only. The anesthesia staff will discuss this with you at the time of your pre-testing. Upon arrival to the hospital you will go through a check-in process. At the appropriate time you will be brought into a pre-operative holding area. At this point the nurse will see you, review your records, and an IV will be started. A member of the anesthesia team will meet with you to discuss any anesthesia concerns and anesthetic options. Your surgery will be performed under general anesthesia (you will go to sleep.) In addition, the anesthesiologist may recommend a regional block if they think that you are a good candidate. This involves an injection of local anesthetic (numbing medicine) or placement of a catheter near the nerves at the base of the neck. These blocks are generally recommended to help control your pain following surgery. The anesthesiologist will discuss the risks of the block and the decision to perform this is a mutual decision between the patient and the anesthesiologist.

You can anticipate that your surgery will last approximately 1 ½ to 2 ½ hours, although this varies depending on the type of shoulder arthroscopy for which you are scheduled. If you have family members with you they will wait for you in the waiting room. Your doctor will speak with them immediately after your surgical procedure to let them know that you are finished. During your surgery, family members should plan on remaining in or near the waiting area in order to be accessible at the completion of the procedure. Belongings will be stored in a locker in the pre-operative area.

When you wake from surgery you will be located in the post-operative recovery room. Unfortunately, family members cannot be present with you at this time as there are many other patients and many nurses in this area. Once you have been stabilized and are comfortable family members will be invited to sit with you while you continue recovering from surgery. Criteria for discharge include that your pain is under control and that you are eating, drinking, and able to walk to the bathroom with minimal assistance. You will have a dressing on your shoulder and your arm will be immobilized in a sling.

## **Risks and Complications**

The list below includes some of the common possible side effects from this surgery. Fortunately, complications are very rare in your doctor's practice. Please note that this list includes some, but not all, of the possible side effects or complications. Complications may include complications from anesthesia, infection (very rare with arthroscopic procedures), nerve injury (extremely rare), blood vessel injury (extremely rare), bleeding (extremely rare), shoulder stiffness, failure of repair, failure of the anchors or sutures, failure to improve your symptoms as much as you had hoped, a blood clot can form in your arms or legs and very rarely travel to your lungs, complex regional pain syndrome (a painful condition involving the arm).

## **Postoperative Care**

1. Sling instructions. After surgery your shoulder will be placed in a sling. The sling should be worn as directed by your doctor. The sling is used to limit motion of your shoulder. In some cases where the repair must be carefully protected, your arm may be placed in a sling with a pillow that is attached around your waist. It is very important to wear your sling as directed by your doctor after surgery. You may remove your arm from the sling to bend and straighten your elbow and to move your fingers several times a day. You may remove the sling to bathe, dress, and perform elbow range of motion several times a day. In some cases where no soft tissue repairs are performed your surgeon may ask you to discontinue sling use as soon as possible to prevent stiffness of the shoulder.
2. Diet. We recommend that you eat a light diet the evening of surgery and the next day but you may resume eating a regular diet as soon as you tolerate it.
3. Pain control. When you are discharged from the hospital you will be given a prescription for pain medicine. You may take this medicine as prescribed. You will be given the option to purchase a cold pack machine. This machine has a sleeve which is attached to an ice cooler. You place ice and some water in the cooler and plug this in to a regular outlet. This circulates cold water through the shoulder sleeve providing relief of pain and swelling after surgery. You should keep ice on the shoulder frequently for the first 48-72 hours after surgery. We recommend icing 2-3 times pre day for the first week especially before sleep. We do recommend that you put a t-shirt or a thin towel between you and the sleeve so that it doesn't injure your skin.
4. Wound care. You may remove your dressing and shower 48 hours after surgery if your surgery was performed arthroscopically and you do not have a pain catheter. If you have a pain catheter, this should be removed by a family member 72 hours after surgery along with the shoulder dressing. If your surgery was performed with an open incision, you may remove your dressing 5 days after surgery. After the dressing is removed you may then shower. You may not get in a hot tub or pool and immerse the incisions underwater for six weeks but you may get in the shower and let the water run over them. Pat the incisions

dry afterwards, and place band-aids over the incisions. There is no need to place any ointment over the incisions. Sometimes significant bruising is seen in the front of the shoulder or along the biceps muscle. This is normal and is related to mild internal bleeding after surgery. It is better to keep them dry. If you notice drainage from the incisions, swelling or increased pain 5 days after surgery please call the office. Redness around the incision is very common and should not be a concern unless it is associated with drainage 5 days after surgery, redness spreading away from the incision or fevers.

5. Sleep. It is often very difficult to sleep in the week or two following shoulder surgery. The surgery itself may interfere with your sleep-wake cycle. In addition, many patients have increased shoulder pain lying flat on their back. We recommend that you try sleeping in a recliner or in a reclined position in bed. This is often much more comfortable. You may place a pillow between your body and your arm and also behind your elbow in order to move your arm away from your body slightly. This often helps with the pain. You should wear your sling when you sleep.
6. Driving. Operating a motor vehicle may be difficult due to your inability to use your operative arm. If you should have an accident or get pulled over while wearing a sling, the authorities may consider that driving while impaired. The decision to drive is based on your comfort level with driving essentially one-handed. If you need to drive you should wait at least until you have seen your doctor at the first postoperative visit. Once you are out of your sling you may drive once you feel safe operating a vehicle. No one should operate a motor vehicle while taking narcotic medications. Please limit car driving until you are off narcotics.
7. Physical therapy. The decision to prescribe physical therapy and when to start these activities is made on a case by case basis. This will be discussed with you on your first postoperative visit. It is rare that your surgeon will prescribe therapy before your first postoperative visit. You may be instructed by your surgeon /recovery room nurse to begin gentle range of motion exercises on the day of surgery. These will be self directed exercises that you start on your own.

## **Medications to Avoid Before and After Surgery**

Medications that increase the chances that you will bleed excessively after surgery include:

1. Aspirin, enteric-coated, baby, and plain aspirin or any other product containing aspirin. In some cases, we may recommend stopping your aspirin 1 week before surgery. In others cases, low-dose aspirin may be continued based on your medical condition. Please discuss with your surgeon.
2. Coumadin – discuss this with the prescriber as to the best time to stop this medication before surgery.
3. Celebrex- stop 1 week prior to surgery.
4. Ibuprofen (Advil, Motrin) - stop 1 week prior to surgery
5. Naprosyn (Aleve) - stop 1 week prior to surgery
6. Plavix – discuss this with the prescriber as to the best time to stop this medication before surgery
7. Some over-the-counter herbs can also effect bleeding. These include chondroitin, dan shen, feverfew, garlic tablets, ginger tablets, ginkgo, ginseng, and quilinggao and fish oil.

After shoulder surgery, you should avoid all anti-inflammatory medications including ibuprofen (Advil, Motrin) and Naprosyn (Aleve) and any other prescription anti-inflammatories, unless your surgeon prescribes them. Do not resume these medications until your doctor says that it is okay. You may take Tylenol unless otherwise instructed not to do so.

## **Follow Up Appointment**

A follow up appointment is usually scheduled at the time that surgery is scheduled. Patients are seen in the office 10-14 days after surgery for suture removal. If you have not been scheduled for a follow up, please call the office to set up an appointment. We will then schedule your second follow up appointment for approximately 3 to 4 weeks thereafter.

## **Emergencies**

Signs of an emergent situation include increasing redness, swelling, and significant drainage from the incision site, a fever greater than 101.5, inability to tolerate food and fluids after surgery. In rare cases, temporary breathing difficulties can occur in patients who have had a regional block or a pain catheter. If you find that you have any of these situations, it is advisable that you call our office or the hospital. If the office is closed please call the respective Beaumont Orthopaedic Unit so that emergent care can be initiated for you.

## **Contact Information**

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