TWIN CITIES ORTHOPEDICS

Shoulder Impingement Book

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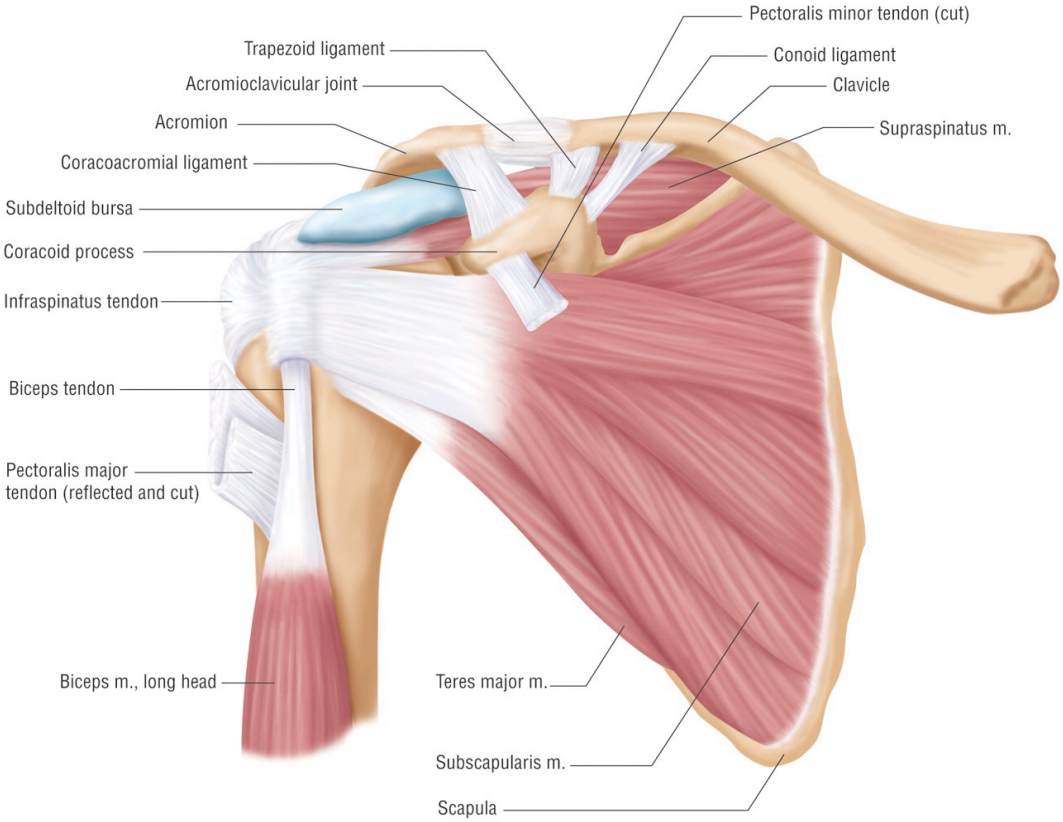


Normal shoulder function

The shoulder is the most flexible joint in the body, allowing you to move and rotate your arm in many different positions. Due to this extensive flexibility, the shoulder joint is susceptible to injury and instability.

The shoulder is made up of three bones: the humerus (arm bone), scapula (shoulder blade), and clavicle (collar bone). These three bones create two separate joints within the shoulder.

The shoulder joint is a ball and socket joint. It is created by the ball at the upper end of the humerus fitting into the shallow socket (glenoid) of the scapula. To improve the stability of the shoulder joint, there is a tough cartilage ring around the socket called the labrum. These structures make up the glenohumeral joint.

The glenohumeral joint is surrounded by a thick capsule that helps keep the joint fluid within the joint. The joint fluid helps nourish the articular cartilage, the smooth cartilage on the ends of your bones that help keep your shoulder movements smooth and friction-free.

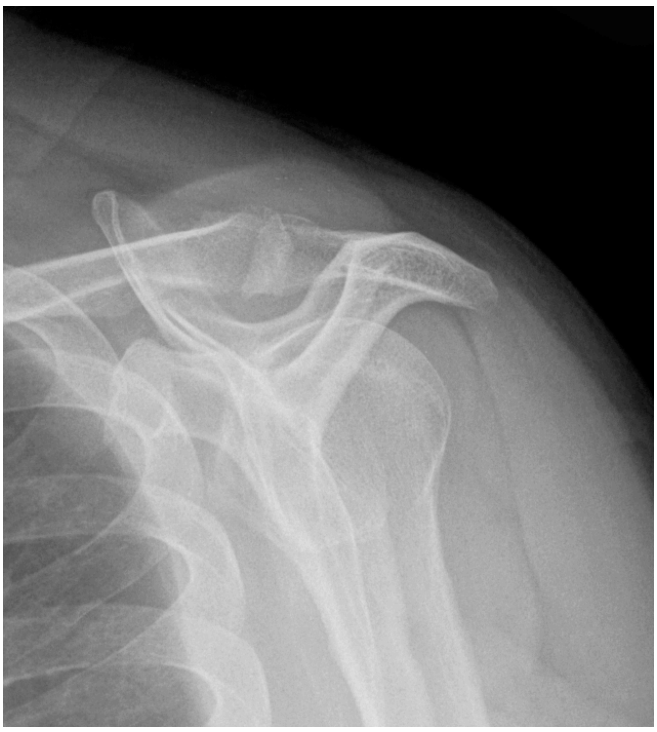
Outside of the capsule there is a group of four muscles and tendons that surround the shoulder joint to help keep the upper part of the arm attached to the scapula. These muscles are the rotator cuff muscles and are important for raising and rotating your arm, as well as other, more complex movements like throwing or swimming.

A bony portion of the scapula (acromion) projects over the shoulder joint to help protect the joint and allow for attachments of different muscles in and around the shoulder. The lateral aspect of the clavicle attaches to the acromion just above the shoulder joint, creating the acromioclavicular, or AC joint.

There are areas of potential high friction within the shoulder. The body creates a lubricating structure (bursa) to help decrease the friction in these areas and allow easy motion in the shoulder.

Impingement

Impingement is one of the most common causes of shoulder pain in the adult. Normal anatomy and shoulder function allow for free and easy motion of the shoulder. If there is a bony abnormality, or chronic, repetitive use of the shoulder, the acromion can rub, or impinge on the rotator cuff tendons and bursa, causing irritation. The signs and symptoms include shoulder pain with or without weakness. It is possible if there is chronic or continued impingement on the rotator cuff tendons that it could progress to partial or full thickness tears in the tendons.



In order to diagnose impingement, Dr. Hunt will conduct a thorough history and physical exam. He will also obtain x-rays of the affected shoulder to help see what the bones in your shoulder look like. After gaining as much information as possible, Dr. Hunt will discuss with you your diagnosis and possible treatment plans.

Risks

There are some risks associated with surgery; any time we use a needle to penetrate your skin or make an incision, there is a very low risk of contracting an infection. We do everything we can to prevent infections from occurring. There is also a small risk of blood vessel or nerve damage, bleeding, blood clot formation, incomplete resolution of the pain, swelling and stiffness in the operative shoulder. There are also certain risks with anesthesia that will be addressed with you before your procedure.

Before Surgery

Before we can perform any surgical procedure, we need you to see your primary care provider for a pre-operative history and physical exam to make sure that you are healthy enough to tolerate the stress of the surgery. Your primary care provider may do some additional testing to assess your health in preparation for the surgery.

We ask that you refrain from using any non-steroidal anti-inflammatory medications (NSAIDs), such as ibuprofen, naproxen, Aleve or Advil for 10 days prior to your surgery. We also ask that you stop taking aspirin 7 days before your surgical date. Please contact your primary care provider regarding taking your other medications on the

day of surgery. You may take Tylenol or Celebrex as needed up until the day before surgery.

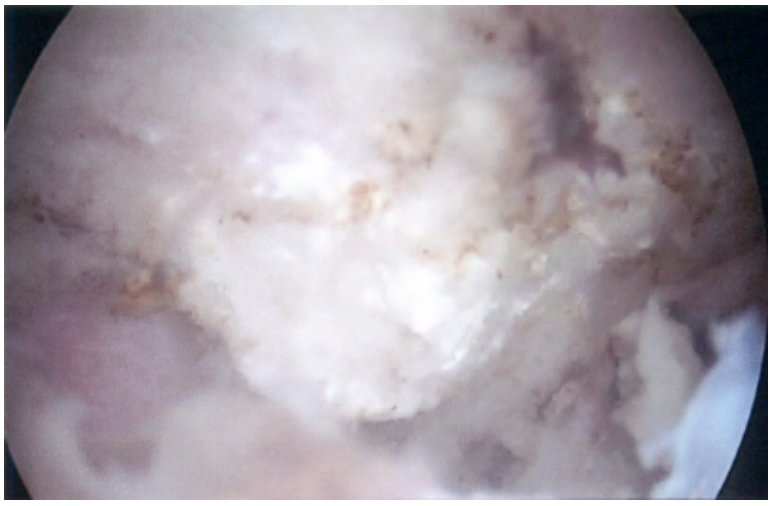
In order to ensure your health and the best possible outcome from your procedure, we ask that you quit using any and all kinds of tobacco. Quitting may be difficult, but it is important for the short-term outcomes related to your surgery and the long-term health of your body. Repairs may be delayed in healing or may not heal at all if you continue to use tobacco after your surgery. If you would like assistance finding the right method of smoking cessation for you, please contact us or your primary care provider.

Procedure

The day of the procedure, we ask that you do NOT eat or drink any food or liquids before coming to the surgery location. Once you are registered at the surgery center, we will start an IV in your arm and prepare you for your surgery. You will meet with the anesthesiologist and have every opportunity to ask questions you may have. You will also see and speak with Dr. Hunt on the day of your procedure. Before you are taken to the operating room, the anesthesiologist will administer a scalene block on the side of the operative shoulder. This is an injection of a long-acting local anesthetic that will help control pain during and after the procedure. When ready, you are taken to the operative suite and placed on a flat bed. We use a very light general anesthetic to put you to sleep, but light enough where you continue to breathe on your own. We then position you around a beanbag and prep your shoulder for surgery. The surgical procedure itself takes approximately 30 minutes.

The entire procedure is performed using an arthroscope, or a small camera that is inserted into small portal sites in your shoulder. We are able to visualize your entire shoulder through the arthroscope and perform the planned procedure without having to make large incisions in your skin. Using the arthroscopic method versus an open approach decreases the chance of infection and tends to decrease post-operative stiffness in the operative shoulder. After assessing all of the structures in the shoulder, Dr. Hunt will use a small burr to shave off the bone spur causing the impingement on the bottom surface of the acromion, as well as remove about 5 millimeters of the distal end of your collar bone.

After the surgery, a long-acting numbing medication is injected into your shoulder to help with pain control the day of surgery. Sutures are used to close the 3 small portal sites; these sutures are buried underneath the surface of your skin and will not have to be removed. Your body will dissolve these sutures after adequate healing of the skin has taken place. There are



dressings placed on your shoulder and you are put in a simple sling before you are taken to the post-operative area where you are allowed to recover until you are ready to go home.

After Surgery

For the first 3 days after surgery, we suggest that you pack your operative shoulder in ice constantly. This will help prevent swelling and lead to a much shorter recovery period. We have placed enough dressings on your shoulder that you will not experience any frostbite to your skin from the ice.

You may remove the bandages from your shoulder 72 hours after surgery. After removal of the bandages, there will be Steri-strips over the incisions. Keep these Steri-strips on until they fall off on their own. At this point you are able to shower, letting water and soap run over the shoulder and patting it dry. Do not submerge the incisions under water.

It is normal for your shoulder to be mildly warm after your surgery. This is due to the increase in blood flow to the area in response to the surgery. The shoulder and arm may swell up in response to the surgery as well. You may also experience a low-grade fever while recovering. This is a normal part of the inflammatory response your body mounts after an invasive procedure.

Pain Relief

After surgery, we provide you with a few different strategies for pain control. Most of the pain after surgery is associated with swelling- to prevent the swelling and discomfort we ask that you try to keep ice packs on the operative shoulder constantly for the first 3 days after surgery. We also provide you with 3 different prescription medications to help control your pain. Two of these medications are narcotic pain medications; one is a long-acting pain medication that gives you good baseline relief, and the other is a short-acting medication that you should use for breakthrough pain. Some of the side effects of the narcotic pain medications are drowsiness, dry mouth and constipation. Drink plenty of water while taking these medications. You may want to use a stool softener during the treatment period as well to help prevent any bowel discomfort.

We will also prescribe you a medication for nausea and/or vomiting that you can use if the other medications cause any discomfort in your stomach. You can use this medication as needed for nausea or vomiting that you may experience.

If there is an increase in pain after the first 3 days, rest the operative arm by staying off of your feet and icing constantly for 12-16 hours. This should help calm the inflammation in your shoulder and your discomfort should abate. Use ice as much as you need to control the pain and swelling.

Recovery

After surgery, you will be in your sling until the feeling returns in your operative arm- the block usually lasts 8-12 hours. After coming out of the sling, you have full use of your operative arm. You are able to move your arm in any position that is comfortable and that you are able to tolerate.

From our point of view, you have no restrictions as long as you are able to tolerate the activities. The incisions may be tender to direct pressure for a couple months. The AC joint on the top of your shoulder may be tender for 2-3 months while the scar tissue that forms continues to mature.

Follow-up

You will follow up with Nick Meath, Dr. Hunt's physician assistant, 10-14 days after surgery. This appointment is made for you at the time you schedule your surgery. At this appointment, your pain control, restrictions, incisions and work/school status will all be discussed. Your intra-operative photos of your surgery will be reviewed with you at this appointment as well. You will have a follow up appointment with Dr. Hunt 6-8 weeks after your surgery.

If you miss any of your post-operative appointments, we reserve the right to deny any medication refill requests you have until you are seen in clinic.

If any questions, concerns or issues arise, feel free to contact Kendra, our care coordinator at **952-456-7089** during regular business hours, or call our main number at **952-456-7000**.

When to Call

There are certain situations after surgery in which you should contact your surgeon. Please call if you experience any of the following:

-Fever over 101 degrees for more than 24 hours
-Foul drainage, redness or warmth at the operative site
-Large amounts of bleeding or drainage
-Severe or uncontrolled pain
-Persistent nausea or vomiting
-Hives, rash or medication intolerance

*** Call 911 or go to the nearest Emergency Room if you experience shortness of breath, redness, warmth and extreme pain in the calf. These are signs of a blood clot.***