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PATIENT GUIDE TO SHOULDER ARTHRITIS & SHOULDER REPLACEMENT

What is osteoarthritis?

Osteoarthritis (**Figure 1**), also known as degenerative joint disease, or DJD, is a common cause of shoulder pain in middle aged and older adults. Osteoarthritis is a disease which causes loss of the articular cartilage, the cartilage which lines the surface of the joints. The loss of cartilage can eventually result in changes in the bone and deformity.

How does osteoarthritis occur?

Most commonly, osteoarthritis occurs from no known cause. However, it can be a result of joint injuries or trauma, following surgery, infections, or hereditary or developmental problems.

How do I know I have osteoarthritis?

Osteoarthritis most commonly leads to pain in the joint. The most common areas affected are the knees, hips, hands, shoulders and foot and ankle. When affecting the shoulder it can cause joint pain, stiffness, lack of motion, crepitation or cracking with motion, and joint swelling.

Do I need x-rays, a MRI or any other tests?

A set of x-rays is most commonly ordered to evaluate the shoulder for osteoarthritis. The lack of cartilage can be seen on the x-rays because there is decreased space between the bones. In addition, other changes to the bone which occur with osteoarthritis can be seen on a standard x-ray. Other causes of arthritis can be evaluated as well on a standard x-ray. A MRI is only occasionally necessary to rule out other suspected injuries of the shoulder, such as an injury to the rotator cuff.

Is there usually any other damage to the shoulder with Osteoarthritis?

In addition to affecting the joint surface (articular cartilage), the cartilage ring (labrum) or biceps tendon can be torn as well. This usually occurs as part the disease process. Damage to the rotator cuff can occur as well, although this is usually not a significant problem.

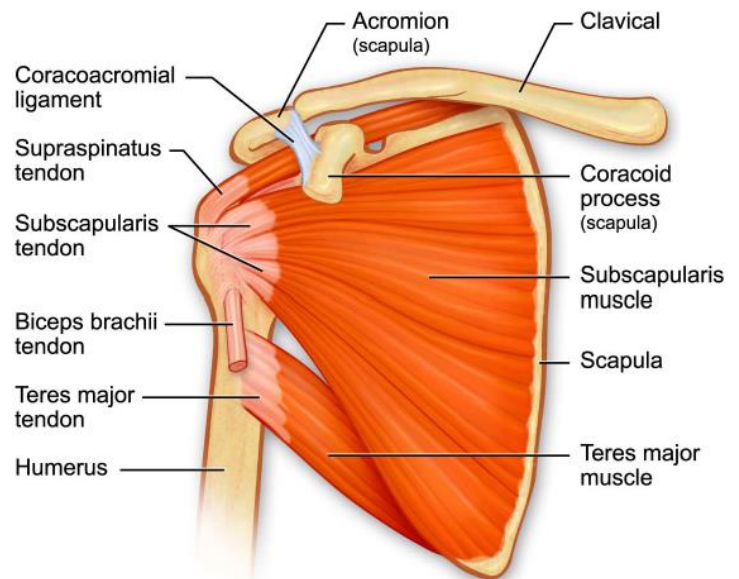


FIGURE 1: Front view of the shoulder joint

What treatment options do I have?

The treatment options for osteoarthritis will depend on several factors, including your age, level of symptoms, and level of activity. There are a number of both non-surgical and surgical options, depending on the type and location of the arthritis. Each of the common non-surgical and surgical options for treatment will be described below.

NON-SURGICAL TREATMENTS FOR OSTEOARTHRITIS:

Will decreasing my activity help my osteoarthritis?

Overhead or heavy labor activities can commonly aggravate arthritis of the shoulder. However, it is important to maintain a good range of motion and muscle strength in an arthritic joint. Non-impact activities such as swimming can be especially beneficial. Heavy weight lifting can also aggravate arthritis of the shoulder, especially bench press or overhead press

Are there medications I can take for my arthritis?

The most common medication used for osteoarthritis are nonsteroidal anti-inflammatory drugs (NSAIDs). This medication helps by both decreasing pain and inflammation in an arthritic joint. A variety of these medications are available and any one of them may be effective for your pain. For patients who get severe GI upset with medication, some newer agents called COX-2 inhibitors (Celebrex) may decrease the likelihood of GI or ulcers when using these medications. You should always take these medications with food and discuss any other medications or drug allergies with your primary care physician.

What about taking Glucosamine and Chondroitin Sulfate?

The use of oral glucosamine and chondroitin sulfate have been shown in many studies to cause mild to moderate improvement in patient's symptoms with osteoarthritis. For this reason, they can be beneficial for your pain. There are no studies available to demonstrate any long-term benefit from these medications in preventing future arthritis. There are many different formulations available. The recommended dose of oral glucosamine and chondroitin sulfate is 1,500 mg of glucosamine and 1,200 mg of chondroitin sulfate daily. **Please ask about our current Nutraceutical program for a recommendation.**

What about a steroid injection?

Intraarticular steroids (cortisone) can provide significant short-term pain relief in patients with advanced arthritis. The injections commonly only last for a few weeks to three months. Occasionally, they can provide a longer benefit if the pain is due an acute episode of inflammation. Injections are generally limited to three or four a year, although there are no absolute guidelines.

Are there other types of injections I can receive?

There has been recent interest in intraarticular injections of hyaluronan (Synvisc, Hyalgan, Euflexxa, etc). These injections are an attempt to improve joint lubrication by providing some components found in normal joint fluid. These injections are given weekly, either three or five times. Although these injections are commonly given in the knee, they are not currently approved for use in the shoulder.

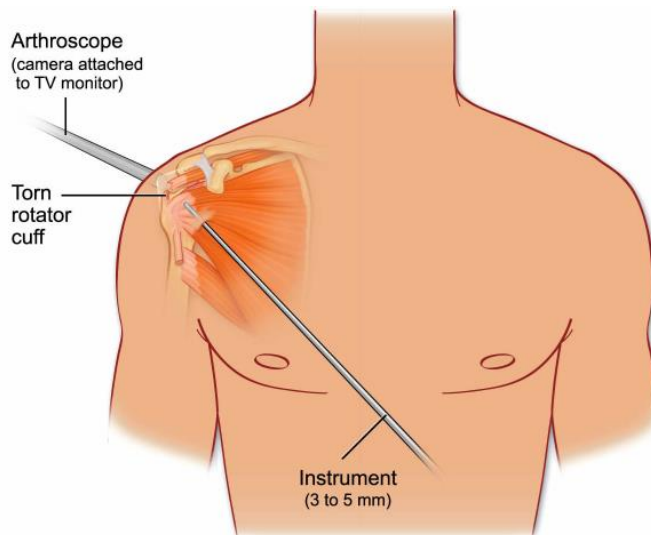


FIGURE 2: Shoulder Arthroscopy

SURGICAL TREATMENTS FOR SHOULDER ARTHRITIS:

Is arthroscopy helpful for arthritis?

Arthroscopy (Figure 2) for arthritis is helpful for certain symptoms, such as mechanical locking or catching. In addition, injury to the labrum or biceps tendon can be helped with arthroscopy of the shoulder. Arthroscopy can also be used in certain cases to help release the shoulder capsule to improve motion. However, when arthroscopy is used to simply to "clean out" the joint and smooth articular cartilage, the results are unpredictable and short-lived. You should speak with your physician to see if arthroscopy might be of benefit.

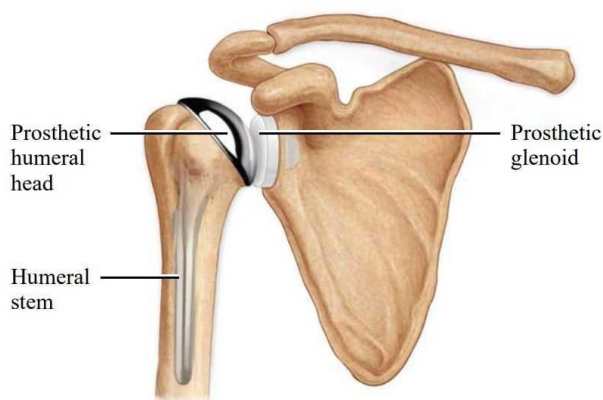


FIGURE 3: Total shoulder joint replacement.

FIGURE 3 : Shoulder Replacement What about shoulder replacement?

Shoulder replacement (Figure 3) is surgery that is performed to artificially replace the arthritic surface of the shoulder joint with metal and plastic. Most commonly, the humeral head (ball) is replaced with a metal ball attached to a stem. This stem is placed in the humerus (arm bone) to hold the ball in place. The stem can be cemented into place, or held in place with a "press-fit" technique. Both techniques have shown good results in shoulder replacement.

What's the difference between hemiarthroplasty and total shoulder replacement?

Hemiarthroplasty is surgery where only the ball of the ball and socket joint of the shoulder is replaced. This is performed in certain situations when a socket should not be used. This includes cases where the rotator cuff is severely torn, or if the glenoid is too worn out to hold an artificial socket. A **total shoulder replacement** includes replacement of both the ball (humeral head) and the socket (glenoid). This replacement is performed with a metal ball for the humeral head and a plastic socket for the glenoid. A total shoulder replacement is performed for most cases of osteoarthritis.

What if I have a severely torn rotator cuff?

In cases of a severely torn rotator cuff (rotator cuff arthropathy), only the ball of the ball and socket is replaced. This is because too much stress is placed on a plastic socket without good rotator cuff function, and this would lead to early failure and loosening of the socket.

Replacing just the ball (humeral hemiarthroplasty) can be successful at relieving pain with rotator cuff arthropathy. However, overhead function is still compromised.

What is a Reverse Ball and Socket?

In some cases of arthritis with a severely torn rotator cuff (rotator cuff arthropathy), a "Reverse Ball and Socket" replacement can be performed. This design places the metal ball where the socket used to be (glenoid), and places a socket where the ball used to be (humerus). By changing the biomechanics of the shoulder, this type of replacement has been shown to increase the ability to lift the arm overhead in patients with rotator cuff arthropathy.

What can I expect from shoulder replacement surgery?

Shoulder replacement surgery is excellent at relieving pain from arthritis. In addition, in most cases, shoulder motion is significantly improved.

What are some of the possible complications of surgery?

Possible complications of shoulder replacement include stiffness of the shoulder after surgery or continued pain or weakness. Other possible complications include an infection, bleeding, nerve or artery damage, failure of tendon healing around the shoulder, or problems with the anesthesia.

What kind of anesthesia is used?

General anesthesia is used for most surgeries. In some cases, before the surgery, the anesthesiologist will inject numbing medicine around the nerves of the shoulder. This numbs the arm and helps to control your pain after surgery. In addition, you go to sleep (general anesthesia) to help keep you comfortable during surgery.

What do I need to do to prepare for surgery?

Our staff will help to set up the surgery through your insurance company and will instruct you on any paperwork that may be necessary.

Prior to your surgery, you may be asked to get several medical tests, done on an outpatient basis. Most patients need some minor blood tests and a urinalysis. If you are over age 50, you may require an EKG and chest x-ray. Some patients need to see an internist or their family doctor to obtain clearance for surgery.

The night before the surgery, a member of the hospital staff will contact you about what time to arrive for surgery. You may not eat or drink anything after midnight the night before your surgery.

How long will I be in the hospital?

Most patients are admitted to the hospital for 2-3 days following the surgery. Physical therapy is begun in the hospital the day after surgery to help restore shoulder motion and strength.

What happens the day of surgery?

The day before surgery you will be told what time to report to the hospital. You will be admitted and taken to a pre-operative holding area where you are prepared for surgery. **You will be asked several times which shoulder is being operated on, and the surgical site will be initialed.** Please note that you are asked this question many times on purpose. After the operation, you will be taken to the recovery room to be monitored. Once the effects of anesthesia have worn off and your pain is under good control, you will be taken to your hospital room. You will be given all of your post-operative instructions and pain medication before leaving the hospital.

How should I care for my shoulder after surgery?

Prior to your discharge, you will be given specific instructions on how to care for your shoulder. In general, you can expect the following:

Diet:

Resume your regular diet as soon as tolerated. It is best to start with clear liquids before advancing to solid food.

Medication:

You will be given a prescription for pain medication.

Bandage:

You will have a thick dressing on the shoulder. You will be instructed on when it can be removed, usually 2-3 days after the surgery.

Showering:

You may shower after your dressing is removed, 2 – 3 days after the surgery. You cannot take a bath until the wounds are completely sealed, usually 2 – 3 weeks after surgery.

Sling:

You will have a sling, which you will use for about 4 weeks. You can remove it for grooming and physical therapy.

Ice:

You may receive an ice machine that continually surrounds your shoulder with cold water. If not, you may apply ice over the dressings for 30 minutes every hour for

Sutures:

Your stitches will be removed at your office visit 7-10 days after surgery. In some cases, sutures are used which absorb and do not need to be removed.

Follow-up office visit:

You will be instructed on when to follow-up in the office. This is usually 7-10 days after surgery.

Exercise:

You will be instructed on exercises you can do immediately after surgery. You will start physical therapy within the first several days after surgery.

Return to work or school:

You can return to school or work within 3 – 5 days without using the affected arm. If you need the use of the arm to return, you may be out of work or school for a longer period of time.

What will rehabilitation involve?

The rehabilitation is based on several goals: 1) allowing the tissue to heal; 2) regaining motion; 3) regaining strength; and 4) return to full activity. The rehabilitation protocol for the physical therapist can be provided for you to review.

When can I return to full activity, including sports?

In general, you will be allowed to return to sports in 3-4 months after surgery. You must have good motion, strength, and control of your shoulder and arm. How quickly you return to sports depends on several factors, including: 1) your own rate of healing; 2) the damage found at surgery; 3) if you have any complications; 4) how well you follow the post-operative instructions; 5) how hard you work in rehabilitation.

What is the success rate?

Overall, the success rate for shoulder replacement surgery ranges from 85 to 95% for reducing pain and improving motion in the shoulder. Good results following shoulder replacement can last 10 years or longer.

Questions?

If you have any questions about your injury or possible need for surgery, please do not hesitate to contact our staff.

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