To speak with an orthopedic clinical specialist, call **314-514-3500**. For more information, visit **ortho.wustl.edu/TotalShoulder**



Orthopedics



WASHINGTON UNIVERSITY ORTHOPEDICS

Total Shoulder Replacement

Why have a shoulder replacement?

Anatomic total shoulder arthroplasty is a joint replacement surgery for a variety of painful shoulder joint conditions – most commonly osteoarthritis of the joint. Osteoarthritis is a condition where the cartilage degenerates leading to bone on bone contact and spur formation around the joint. This leads to pain, stiffness and decreased shoulder function. The primary reason to consider a shoulder replacement is pain relief. Generally, there is also an improvement in shoulder range of motion and function as well.

How does the shoulder work?

The shoulder is made up of two joints, the acromioclavicular joint and the glenohumeral joint, muscles, ligaments and tendons.

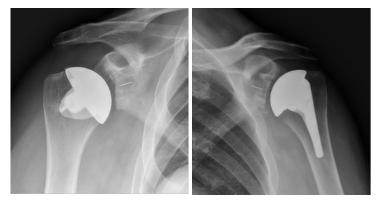
- The acromioclavicular joint is where the acromion, part of the shoulder blade (scapula) and the collar bone (clavicle) meet.
- The glenohumeral joint is where the ball (humeral head) and the socket (the glenoid) meet.
- The rotator cuff connects the humerus to the scapula and is made up of the tendons of four muscles. Tendons attach muscle to bone. The deltoid muscle is the muscle that forms the rounded curve of the shoulder. 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.

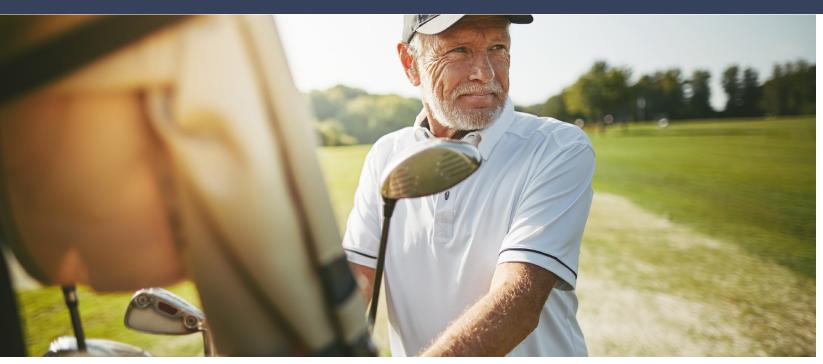


How can surgery help?

During anatomic shoulder replacement, the ball and socket portion of your shoulder will be replaced with metal and plastic parts that are similar in shape and size to your own shoulder anatomy – hence the name "anatomic". The socket portion of your shoulder is resurfaced with a plastic socket and the ball portion (humerus) is replaced with a metal ball attached to a metal stem of various lengths secured within the humerus.

TOTAL SHOULDER REPLACEMENT





EXPECTED OUTCOMES

Shoulder arthroplasty has been performed in the United States since the 1950's. At that time, it was used to treat severe shoulder fractures. In recent years, this surgery has become more common and is used for many painful shoulder conditions.

Anatomic replacement is very reliable for pain relief and improvement in shoulder range of motion and function in over 95% of patients. It is expected that an anatomic replacement will last 12-15 years in over 80% of patients. Our shoulder surgeons perform about 650 total shoulder replacement surgeries each year.

Most patients can be very active. You can golf, play tennis, swim, hunt, do yard work and garden. Patients with shoulder replacements can perform light and medium demand labor jobs. However, it is not designed for sustained heavy manual labor. You can lift lighter weights with higher repetitions. However, it is important to remember the socket portion of the implant is plastic and excessive activity can result in early failure and loosening of the implant.

Getting ready for surgery

Schedule an appointment with your primary care provider and dentist if you haven't been evaluated within the last year. Complete your dental work before the shoulder surgery. To make sure it is safe for you to have anesthesia for your surgery, you will meet with our anesthesia specialists 2-3 weeks before surgery. Your surgeon may also recommend advanced imaging studies such as an MRI or CT scan of the shoulder to help with surgical planning.

Postoperative recovery

After surgery, your shoulder will be placed in a sling for 1 week. Depending on the surgeon's preference, the dressing can be removed in 1-2 weeks. You will begin your exercises the morning after surgery. These exercises will be done 3-4 times per day while in the hospital and at home. Supervised physical therapy may be recommended by your surgeon starting 3-6 weeks after the surgery.

Learn more

To help patients learn more about total shoulder replacement, we've created videos and a Total Shoulder Replacement Journey Guide that has helpful information on surgery preperation and postoperative recovery. To access this information, scan the QR code with your phone's camera or visit ortho.wustl.edu/TotalShoulder.



TOTAL SHOULDER REPLACEMENT COMMON QUESTIONS AND ANSWERS

What restrictions will I have after surgery?

- 1. No weight bearing through the arm this means do not Drive: You should wait until after your first postoperative push or pull with your operative arm to get out of the visit, about 2 weeks from surgery. bed or up from a chair.
- 2. Do not attempt to reach behind or up your back.
- 3. Although we recommend that you wean from your sling within a couple of weeks and begin to use your arm, do not lift more than a cup of coffee with the operative arm for 6 weeks.
- 4. Please refrain from any dental, bladder or bowel procedures for 3 months following surgery. Once you are 3 months out from surgery you will need to be pre-medicated with antibiotics prior to any of these procedures for 2 years from the date of surgery.

How long does the surgery last?

About 11/2-2 hours. Your surgeon will discuss whether you are a candidate for a same day discharge, or if a one night hospital stay is the best option for you.

How long is the recovery?

Full recovery takes about 3-6 months.

PROBLEMS FROM SURGERY

Although shoulder replacement can help with pain, there's also the chance that surgery will cause problems. These problems are called complications.

The list below includes some of the most common complications from this surgery. Fortunately, complications are very rare. Please note that this list includes some, but not all, of the possible side effects or complications. In some cases, such as infection, further surgery may be needed to treat the problem. Some complications will resolve or improve with time. There are also risks associated with general anesthesia that are dependent on your overall health.

- Infection: 1% risk, can occur early or late
- Dislocation: 1-2% risk, rare after the initial 6 weeks
- Vascular (blood vessel) injury: very rare
- Hematoma/excessive swelling: 5% risk
- Please let your surgeon know if you have a personal or family history of blood clots.
- Persistent shoulder pain and stiffness
- chance that one or more of the parts may have a problem that requires another surgery in the future.

When can I...?

Return to work: If you have a light duty or desk job, you may return to work as soon after surgery as you feel comfortable. Physically demanding jobs may require 6 weeks to 6 months of recovery before returning to work.

Play tennis, golf or other active sports: around 4 to 6 months from surgery.

How often do I see my surgeon after surgery? You will have 3-5 follow up appointments during the first 6 months after the surgery. Annual follow up appointments are very important. We will take X-rays to check the followina:

- The amount of bone ingrowth.
- The position of the implant.
- The condition of the bone around the prosthesis.

• Nerve complication: up to 10%, these are partial injuries from nerve irritation and resolve in 95% of cases over time

• Blood clots in legs or lungs: clots that cause symptoms are seen in 1-2% of cases despite steps taken to prevent these.

• Revision surgery: Any time prosthetic components (man made parts) are put into a joint, there is always a very small