Shoulder Replacement Surgery

Shoulder replacement is a solution for shoulder pain and stiffness that involves replacing an arthritic joint with an artificial implant. Using this procedure, Dr. Romeo helps patients reclaim the freedom, flexibility, and comfort they once knew. Every effort is made to restore the shoulder function back to the level that allows the patient a return to their favorite activities.

"The typical implanted shoulder prosthesis lasts 15+ years. During this time, you can expect to enjoy an active lifestyle."

Total shoulder replacement (also called total shoulder arthroplasty or TSA for short) is a surgical solution for shoulder pain and stiffness that involves replacing arthritic joint surfaces and damaged bone with an artificial joint.

Why treatment is required

The most common condition that requires people to have a shoulder replacement is shoulder arthritis. Degenerative arthritis, or osteoarthritis, happens when the cartilage has worn away. The cartilage normally provides smooth surfaces for the ball-and-socket shoulder joint to slide against. Shoulder osteoarthritis is very common and may have many causes, such as age, genetics, wear and tear, and trauma. Pain and poor motion are felt because the smooth surfaces of the head of the humerus (ball) and glenoid (socket) become rough and they rub against each other rather than glide.

Another common reason to have a shoulder replacement is a fracture (broken bone) involving the shoulder joint. Less common reasons include inflammatory arthritis and rheumatoid arthritis, conditions where the cartilage is destroyed by inflammation. Avascular necrosis, where there is a loss of blood supply to the humeral head (the ball part of the ball-and-socket joint), is another reason to have a shoulder replacement.

How treatment is performed

Shoulder arthroplasty removes the damaged joint and replaces it with a shoulder prosthesis (artificial joint). To get to the shoulder joint, an incision (cut) is made on the front of the shoulder and the muscles and tendons are moved out of the way. After exposing the shoulder joint, the damaged bone and cartilage of the ball (head of the humerus) and socket (glenoid) are removed.

Then the area is prepared for the placement of the artificial joint. The artificial joint for the humerus is made of metal—usually, titanium for fixation to the bone and cobalt-chrome for the actual ball. In the past, the new metal ball would be connected to a long straight stem. However, Dr. Romeo and his colleagues developed a stemless shoulder replacement more than 15 years ago which has now become the standard of care for patients with osteoarthritis. On rare occasions, a stem is necessary to secure the artificial ball to the humerus.

Most people benefit from attaching a smooth plastic lining to the inner cavity of the glenoid to replace the bumpy, damaged socket. This plastic is made of a special polyethylene and is cemented into place. Patients with osteoarthritis and inflammatory arthritis especially benefit from the placement of a glenoid socket lining component.

After all the pieces are in place, the shoulder joint is checked to make sure that the shoulder is stable and has good range of motion.

A note on arthritis

Most people with shoulder arthritis also benefit from the placement of a glenoid (or socket) component. The glenoid component is made of special plastic and is bone grafted and cemented into place. On rare occasions, Dr. Romeo will use a metal-backed glenoid.

Not everyone requires a glenoid component. In some active young people who want to lift heavy weights or continue their responsibilities as first responders or in the military, Dr. Romeo performs a unique procedure known as a "ream and run", or hemiarthroplasty, where only the humeral head is replaced and the socket is left unchanged. After the components are in place, the shoulder joint is checked for stability and range of motion.

Stemless Total Shoulder Replacement

Today, for patients with shoulder osteoarthritis, Dr. Romeo primarily uses a prosthesis that does not have a metal stem that goes down into the upper arm bone. Years ago, Dr. Romeo helped design a unique stemless system, the Eclipse Prosthesis, which has been used in Europe for more than 15 years and is now available in the United States. In 2020, Dr. Romeo published an extensive investigation on the Eclipse Shoulder System that included more than 300 cases demonstrating its safety and effectiveness.

Studies in Europe conducted ten years after the procedure was launched have also demonstrated excellent outcomes. Dr. Romeo believes that stemless shoulder replacement is the best surgical method for treating osteoarthritis as it is associated with high patient satisfaction, minimal removal of bone, and great potential to return patients back to their desired activities.

Risks and benefits

Shoulder replacement is highly effective at:

- Reducing pain associated with arthritis
- Alleviating pain that can interfere with sleep
- Regaining a fuller range of motion
- Allowing a return to normal daily activities
- Resuming recreational sports

There are risks associated with shoulder replacement surgery. These can include postoperative stiffness, pain, joint instability, and rarely fracture, infection, or nerve damage. The best way to manage these risks is to closely follow all post-operative recommendations and adhere to the prescribed physical therapy protocol.

During the first four weeks, the rotator cuff tendon that is released and then repaired must heal properly to achieve the best result. Excessive use of the arm or going beyond the prescribed restrictions increases the risk of injury to this tendon which can jeopardize your results and may even require additional surgery.

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Physical therapy protocols

From the early days and weeks of your recovery, physical therapy will be important. Moving the wrist, elbow, and fingers, along with some cautious light exercise of the shoulder, is key to ensuring the shoulder heals efficiently and you gain maximum range of motion and functionality.

Pain control

A regional nerve block is administered using 20–40 mL of local anesthetic to "freeze" the area being operated on. The nerve block is long-lasting and works for approximately 12–18 hours after surgery. The anesthesiologist uses ultrasound guidance for the safe and effective placement of the medication for the nerve block. Before going home, the arm is placed in a brace to protect the shoulder reconstruction.

As the nerve block gradually wears off, oral pain medications (pills or tablets) may be used to manage any discomfort. Dr. Romeo uses a variety of pain-control methods (multimodal analgesia), such as Tylenol Extra Strength (acetaminophen) and non-steroidal anti-inflammatory drugs such as Naprosyn (naproxen) or Mobic (meloxicam). Cold therapy or ice at the surgical site also helps reduce swelling, pain, and the need for medications. Dr. Romeo recommends using ice or cold therapy three to four times a day for 20 minutes.

Dr. Romeo provides each patient with specific instructions to manage any post-op pain, including enhanced recovery after surgery (ERAS) protocols. Dr. Romeo has managed thousands of surgeries and has detailed pain management plans for all of his patients. He is also committed to managing their pain responsibly to minimize the risk of opioid addiction.

Recovery time

Shoulder replacement surgery can be performed on an inpatient or outpatient basis. If your surgery is

done on an inpatient basis, you will likely stay in the hospital for one night. If you have it on an outpatient basis, you will go home the same day. This decision will depend on your overall health and insurance coverage.

You will be able to use your arm for simple tasks in a few days and the shoulder will regain normal function in several weeks. Expect not to drive for at least a month.

Outpatient shoulder replacement

In the past, shoulder replacement meant a prolonged stay in the hospital. Advancements in medical devices, techniques, anesthesia, and pain management have made outpatient shoulder replacement surgery a safe and realistic option for many people. Beyond the obvious appeal of recovering at home, outpatient shoulder surgery lowers your risk of infection. When patients have had both inpatient and outpatient, 90% preferred the outpatient environment.

There are, however, a few complicating factors that may rule out this option for some people. For instance, some insurers, such as Medicare, do not currently cover outpatient shoulder replacements. Furthermore, if you have heart disease or other serious medical condition(s), you should have your surgery in a hospital for safety's sake. People with severe obesity (BMI > 45) and those over 70 may not be good candidates for an outpatient procedure. Dr. Romeo can help identify if outpatient shoulder surgery is the right choice for you.

Results

During physical therapy after surgery, you will start to see real improvements in the function and flexibility of your shoulder joint. Most patients of Dr. Romeo reclaim significant range of motion after shoulder replacement. Some of the success of the surgery depends on whether the rotator cuff was damaged before the procedure and how long the person has been living with limited shoulder movement.

The typical prosthetic shoulder lasts 15+ years. During this time, you can expect to enjoy an active lifestyle. Most people report a substantial reduction or complete elimination of pain. If you are physically active, you may experience the occasional ache, but the difference from the time before shoulder replacement will likely be dramatic.

FAQs

Is shoulder replacement a "last resort" for my chronic pain?

No, this is an outdated concept. Recent studies show that shoulder replacement has fewer complications than hip or knee replacement procedures, although these are far more common.

For example, in 2007 a group of medical researchers reported: "Compared with patients who had hip or knee arthroplasties, patients who had shoulder arthroplasties had, on average, a lower complication rate, a shorter length of stay, and fewer total charges."

If you are experiencing chronic shoulder pain as a result of arthritis or injury, there is no reason to rely solely on medications and reduced activities to make the pain tolerable. Dr. Romeo will help you explore the benefits of this effective surgical procedure.

Can I undergo the procedure with a damaged rotator cuff?

For a traditional shoulder replacement to be successful, the rotator cuff must be in a functioning state. The rotator cuff is comprised of muscles and tendons that join the shoulder blade with the shoulder. If the tendons have become separated from the shoulder and/or shoulder blade, the standard shoulder replacement technique is not advised. Instead, Dr. Romeo may recommend a reverse shoulder replacement to improve or fully restore motion and function to the shoulder.

Want to learn more? Find relevant videos, animations, and research material related to this procedure at **anthonyromeomd.com**. ➔

For more information about relieving shoulder pain and restoring motion with shoulder replacement surgery, please request an appointment with experienced Chicago orthopaedic surgeon Dr. Anthony Romeo.

Please visit our website to find out how to schedule your appointment.