Shoulder Replacement Surgery

Labrum and Capsule Repair
REPLACING YOUR WORN SHOULDER

A stiff, painful shoulder can keep you from doing even simple things, like dressing yourself or carrying groceries. But there’s good news. A worn-out shoulder can be replaced, just as a bad hip or knee can be. Shoulder replacement is safe and reliable. Surgery relieves the pain and may let you return to many of your normal activities.

When Your Shoulder Hurts

Over time, your shoulder joint may have become worn and arthritic. Overusing the shoulder may worsen the problem. Or you may have a chronic disease, such as rheumatoid arthritis, that has destroyed the joint. If you’ve had a bad fall, you may have torn or broken your shoulder.

Whatever the cause, your shoulder is stiff and painful. You may not be able to use your arm to reach behind your back or over your head. Your pain may be worse at night, when you’re active, or when it’s cold and damp. If heat, rest, exercise, and medication haven’t relieved your pain, your doctor may be recommending replacement surgery.
Replacement Surgery Can Help
Shoulder replacement surgery almost always relieves pain and may give you more strength and movement in your shoulder. During surgery, an orthopaedic surgeon (a doctor who specializes in treating bone and joint diseases) replaces all or part of your problem shoulder with an artificial joint, called a prosthesis. The prosthesis replaces the rough, worn parts of your shoulder with smooth metal and plastic parts.

Addressing Your Concerns
It’s natural to feel anxious about surgery. The following questions and answers may help ease some of your concerns.

Q. Will my pain go away?
A. Chances are very good that once your shoulder heals, you’ll have little or no pain.

Q. Will I be able to do more?
A. How much strength and movement you regain depends on your shoulder problem. If the muscles and other soft tissue are healthy, your shoulder may be stronger and more flexible after replacement surgery.

Q. How long will the surgery take?
A. Removing a damaged shoulder and putting in a new joint usually takes 2–3 hours. The exact time depends on your shoulder problem.

Q. How long will I be in the hospital?
A. You should plan to be in the hospital about 2–3 days.

Q. About how long will my new shoulder last?
A. A new shoulder can last 15 years or more, as long as you take care of it and have no complications.

Your New Shoulder
Your artificial shoulder has the same parts as your own shoulder joint. Your surgeon picks the design that will work best for you.
How Your Shoulder Works

Your shoulder—a ball-and-socket joint—is the most flexible joint in your body. The ball, or head, of the arm bone (humerus) rests against a small, shallow socket (glenoid). Muscles and other soft tissue hold the ball in the socket and allow you to move your arm up and down, to the side, across your body, and behind your back.

A Healthy Shoulder

When your shoulder joint is healthy, the ball glides smoothly in the socket. That’s because the ends of the bones are cushioned by a smooth covering (cartilage), and tissue (synovium) lines the joint. The muscles and tendons of the rotator cuff hold the head of the arm bone firmly in the socket and give you strength and flexibility.

The acromion is the top part of the shoulder blade.

The rotator cuff is a group of muscles and tendons that attach the arm bone to the shoulder blade and help the shoulder to move.

The humeral head is the top part of the arm bone. It’s shaped like a ball and rests against the shoulder socket.

The tuberosities are the points where the rotator cuff attaches to the arm bone.

The cartilage is the smooth covering on the ends of the bones. It acts like a cushion, allowing the bones to move without pain.

Humerus (arm bone)

The glenoid is the shallow socket that forms a cradle for the head of the arm bone.

The capsule is a sheet of fibers that surrounds the joint. It is tough enough to keep the joint stable, yet flexible enough to allow it to move freely.

The synovium lines the capsule and produces a fluid that lubricates the joint and keeps the ends of the bones from rubbing.

Scapula (shoulder blade)
A Problem Shoulder
Arthritis, injury, bone disease, and torn muscles and tendons can cause pain, stiffness, and sometimes swelling in your shoulder. Then even simple movements become painful and difficult.

Osteoarthritis
Osteoarthritis is a wearing away of the joint. The cartilage becomes cracked and pitted, and the socket may wear down. Eventually, the bone is exposed and may develop growths called spurs. Without a cushion of cartilage, the joint becomes stiff and painful and may feel as if it’s grinding or slipping out of place when you move your arm.

Inflammatory (Rheumatoid) Arthritis
Inflammatory arthritis is a chronic joint disease. The synovium thickens and forms a tissue growth (pannus) that clings to the cartilage and releases chemicals that destroy it. The joint may become red, swollen, and warm, and pain may radiate into the neck and arm. Over time, the joint may get stiff and the muscles may weaken from disuse. The bone may also be destroyed.

Fracture
A fracture can occur when you fall on an outstretched hand or elbow. The ball and tuberosities break off, leaving the arm bone in pieces. A fractured shoulder is painful and may be black and blue and look deformed.

Avascular Necrosis
A number of conditions, including long-term use of steroids or alcohol, can cause the blood supply to the bone to be cut off. As the bone dies, it collapses. The shoulder becomes painful and movement is limited.

Rotator Cuff Tear
A chronic rotator cuff tear may lead to severe arthritis. As the ball rides up against the acromion, the joint becomes painful, stiff, and weak. Surgery can relieve the pain, but flexibility and strength may never be regained.
Replacement surgery is recommended only if other treatment options do not relieve symptoms. Your orthopaedic surgeon will discuss your symptoms with you, examine your shoulder, and order tests to determine if replacement surgery is the best answer for you.

**Your Medical History**
Your medical history includes questions about where and when your pain started, what activities make it worse or better, and what other symptoms you have. Your surgeon will ask about your overall health, including other bone and joint problems, about any prior injuries, and about any medications you take. Before surgery, your doctor will also ask you if you've had any problems in the past with bleeding or anesthesia.

**Your Physical Exam**
Your surgeon examines your shoulder to see the condition of the muscles and tendons and how much strength and movement you have in the joint. He or she will check to see how far and in what directions you can move your arm, and will feel the joint for swelling and tenderness. Your doctor may also check your neck, arm, hand, and fingers to be sure your shoulder problem isn't caused by a pinched nerve or some other condition.
Diagnostic Tests

X-rays help your surgeon learn more about the exact condition of your shoulder joint. Your doctor may order other imaging tests as well.

**X-rays**

X-rays are pictures of your bones. They can reveal bone spurs, fractures or cracks in the ball or socket, and narrowing of the joint where the cartilage or bone has worn away. X-rays also help your surgeon choose the correct prosthesis for you. In some cases, a dye is injected into the shoulder to outline the joint and surrounding tissue. This kind of x-ray is called an arthrogram.

**Other Imaging Tests**

A CT scan (computed tomography) gives a more detailed image of the bones in the joint. A scanner sends information to a computer that produces cross-sectional pictures. A CT scan helps your surgeon see where and how badly the ball or socket is damaged.

MRI (magnetic resonance imaging) lets your surgeon look at the muscles and tendons of your rotator cuff. If the rotator cuff is not damaged, there is a good chance you’ll recover strength and movement in your shoulder after surgery. An MRI also reveals any areas of dead bone.
Your surgeon may ask you to see your primary care doctor and your dentist before surgery. Some medical and dental problems, if untreated, could cause an infection in your new shoulder. Your doctor may also change your medications. Plan ahead for help with household chores during your recovery.

Your General Health
Your primary care doctor will check your general health and may order lab and other tests, such as an ECG (electrocardiogram) to measure your heart’s electrical signals. Your doctor will discuss any medical conditions, such as heart or prostate problems, that you’ll need to take care of before you have joint replacement surgery.

Your Dental Health
If your surgeon asks you to see a dentist, your dentist will look for tooth or gum problems that need to be treated. Bacteria and other germs in the mouth could make their way to your new joint, causing an infection.

Storing Your Own Blood
In rare cases, a transfusion is needed to replace blood lost during surgery. All donated blood is tested to reduce the risk of transmitting HIV, hepatitis, and other bloodborne diseases. However, you may prefer to store one or two pints of your own blood before surgery. Your doctor can discuss blood donation with you.
**Medications**
Be sure to tell your doctor about any medications you take. Some medications can cause interactions with anesthesia. Others, such as nonsteroidal anti-inflammatory drugs (NSAIDs) and aspirin, can cause excess bleeding during surgery. Your doctor may tell you to stop taking these medications a week or more before surgery.

**Planning Ahead**
The following tips can help make your home recovery go more smoothly.
- Ask your doctor how to prevent constipation after surgery.
- Arrange for help with dressing, cooking, and driving. You may find it hard to raise your arm very high for the first few weeks after surgery.
- Put things that you use regularly within easy reach. And stock up on canned and frozen foods.

**Risks and Complications**
Your doctor will discuss the possible risks and complications of your surgery with you. These include:
- Reactions to anesthesia
- Infection
- Damage to blood vessels, nerves, or bones
- Stiffness or loss of motion in your shoulder
- Loosening or failure of the prosthesis
You’ll probably be asked to arrive at the hospital the morning of surgery. You’ll talk with the anesthesiologist, and the nurses will get you ready for surgery. Then you’ll be moved into the operating room (OR), where your surgery takes place.

In the operating room, sensors will be placed on your chest and hands to monitor your heart, pulse, and lungs during surgery.

Preparing for Surgery
You will probably be asked to come to the hospital a day or two before surgery to register and have tests. You’ll be told not to eat or drink anything after midnight the night before surgery. You’ll also be given a surgery consent form to sign. Be sure to ask about anything you don’t understand on this form.

On the day of surgery you need to arrive at the hospital in time to check in. Then you’ll be taken to the presurgery area. An IV (intravenous) line will be inserted in your arm to give you fluids and medication. The anesthesiologist will discuss the type of anesthesia you’ll be given to keep you free of pain during surgery. You may be given medication to help you relax. When your surgery team is ready, you’ll be taken into the operating room, where your anesthesia is started.
Your Shoulder Replacement
Your surgeon may replace just the ball (partial replacement) or both the ball and the socket (total replacement). An incision about six inches long is made from your collarbone to your arm. Once the new joint is in place, your surgeon closes the incision with staples or sutures (stitches).

Partial (Hemi) Replacement

- The humeral head is removed and the arm bone is prepared to hold the stem. The stem may be cemented into the bone. Then the metal ball is secured to the new stem.
- If your shoulder has been fractured, the tuberosities are fixed to the new stem and to the bone around it.

If the humeral head or the soft tissue is damaged but the glenoid is not, sometimes only the ball is replaced.

Total Replacement

- When both the humeral head and the glenoid are worn, your surgeon may replace both the ball and the socket.
  - First, the worn humeral head is removed and the arm bone is prepared to hold the stem.
  - Then the glenoid is prepared. Usually the plastic cup is cemented in place.
  - Finally, the stem is inserted into the arm bone and the metal ball is secured to the new stem.
After surgery, you’ll go to the recovery area. Once the anesthesia has worn off and your condition is stable, you can be moved to your hospital room. During your hospital stay, your healthcare team works to control your pain, get you up and walking, and start you on an exercise program to gently move and strengthen your new shoulder.

**In the Recovery Room**
After surgery, you’ll feel groggy. Specially trained nurses will be with you to monitor your heart and lungs and give you pain medication. They’ll also continue to give you fluids and antibiotics through an IV. When they’re sure your heart rate and blood pressure are stable, you’ll be taken to your hospital room.

**In Your Hospital Room**
You’ll probably stay in the hospital 2–3 days. Your arm may be in a sling or other support to protect your shoulder and keep it comfortable. Your arm and shoulder may also be swollen and bruised.

- The nurses will check your dressing and give you pain medication to keep you comfortable. They’ll get you out of bed that evening or the next day and help you with coughing and deep-breathing exercises to keep your lungs clear.
- Your surgeon will probably visit you each day to check your progress.
**Your Exercise Program**

A day or two after surgery, you’ll start a gentle exercise program for your shoulder. Your exercise program is a vital part of your recovery. How much strength and movement you regain in your shoulder and arm depends in large part on how faithfully you do your exercises.

- Your surgeon or a **physical therapist** (a rehabilitation specialist) will start by gently moving your arm for you to keep your shoulder from getting stiff.

- Next, you’ll begin to move your arm with the help of your other arm.

- As your shoulder heals, you’ll begin to lift and move your arm to increase your range of motion and build strength in the joint.

**Going Home**

When it’s time to go home, the hospital staff will talk with you about your home recovery. They’ll show you how to bathe without getting your incision wet and how to do other home activities without injuring your shoulder. They’ll also help you arrange for someone to take you home, because you won’t be able to use your arm to drive. Your doctor may give you a prescription for pain medication.
At home, your goal is to return safely and comfortably to your normal activities. To get the most from your new shoulder, you need to take an active role in your recovery. Be sure to continue your exercise program and see your surgeon for follow-up exams.

The First Months
Remember that it takes 3 to 6 months for your shoulder to heal. Fractures heal even more slowly. It may take up to a year to develop full strength and motion. You will have some pain and swelling at first. Your doctor may prescribe medication and suggest you use an ice bag. You may also continue to use your sling. Your exercise program will include more active use of your arm and shoulder. Do your exercises exactly as directed to regain maximum strength and movement.

Checking Your Progress
Your sutures or staples will be removed 10–14 days after surgery. Your surgeon may continue to check the range of motion and strength in your shoulder for the first year after surgery. Be sure to keep all your appointments and ask any questions you may have. Your doctor may also recommend that you take antibiotics before you have dental work or surgery.

Call your doctor if you have:
- Increased pain
- Drainage, redness, or swelling around the incision
- A fever over 101°F
**Back in the Swing**

After shoulder replacement you can look forward to less pain and stiffness. You may also have more strength and movement in your shoulder and arm and be able to return to many of the activities you enjoy—like golf, swimming, bowling, gardening, or playing with your grandchildren. If you follow your exercise program and protect your shoulder, you’ll probably be back in the swing of things within a few months. But remember that your new shoulder is not designed for heavy impact. Think of it like the tread on a tire: It will wear out faster with hard use. So, you may want to make some choices about how you use your new shoulder.

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**Returning to Work**

When you can return to work depends on your surgery and the type of work you do. You may be able to go back to a desk job within a few weeks. Your doctor may tell you to resume some tasks gradually or to avoid other tasks until your shoulder heals. Your recovery will take longer if your work is more physical. In some cases, your doctor may advise you to change the kind of work you do to avoid overusing your shoulder.
You and your doctor can use the list below to discuss the things you may need to do before and after your shoulder replacement surgery.

**Before Surgery**
- See your primary care doctor for a physical exam.
- See your dentist for an oral exam.
- Talk with your doctor about your blood management options.
- Stop taking aspirin, ibuprofen, and other NSAIDs as directed before your surgery.
- Arrange to have an adult drive you home from the hospital.
- Arrange for help with driving, dressing, and other tasks at home after surgery.
- Do not eat or drink anything after the midnight before surgery.

**After Surgery**
- Do not get your incision wet until your sutures or staples are removed.
- Wear your sling as directed.
- Keep up your exercise program to help you regain strength and movement in your shoulder and arm.
- Return to work only when your doctor says you are able.
- Ask your doctor about activities you should avoid.
- Talk with your dentist and your doctors about taking antibiotics before dental work or any surgery.

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This product is not intended as a substitute for professional medical care. Only your doctor can diagnose and treat a medical problem.

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