

# **SHOULDER REPLACEMENT: KNOW THE FACTS**

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## **THE PROCEDURE**

What is shoulder replacement?

The shoulder is a ball and socket joint. Occasionally the ball and socket can become worn and painful. When this occurs, your surgeon may recommend a shoulder replacement. In a shoulder replacement, the “ball” (humeral head) of the shoulder joint is replaced with a metal implant that has a stem with a smooth, rounded metal head. The “socket” (glenoid) may be replaced with a smooth, rounded plastic cup that fits the head of the ball perfectly. Depending on your condition, your surgeon may perform a total shoulder replacement in which both the ball and the socket are replaced, or a partial shoulder replacement where only the ball is replaced.

Am I a candidate for shoulder replacement?

Shoulder replacement surgery may be an appropriate treatment for you if you have painful, limited arm and shoulder movement that makes you unable to perform everyday tasks comfortably or sleep well at night. Patients have usually had x-ray or MRI tests showing arthritis or other chronic problems, and find they are not getting the pain relief they need from medication, injections or physical therapy. Shoulder replacement may also be indicated for people who have suffered from shoulder fractures, or when the muscles that aid the shoulder’s movement (the rotator cuff) are torn or severely damaged. An orthopedic surgeon who specializes in shoulder surgery can best evaluate your condition and determine if a shoulder replacement is right for you.

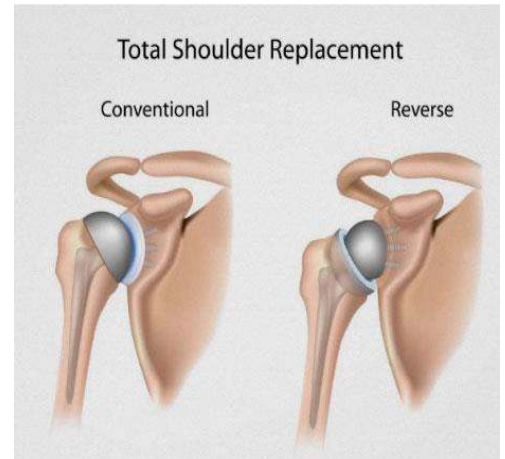
What does the surgery involve?

Shoulder replacement surgery is performed in the hospital by an experienced, specialized surgical team. The procedure generally takes 1-3 hours, although this varies depending on the circumstances. An incision about 4-8 inches long is made in the front of the shoulder, and the humeral head (ball) is removed and the remaining bone is prepared to receive the implant. The new ball and stem component is then inserted into the bone. If a total shoulder replacement is being performed, the socket side of the joint is then smoothed, and prepared, and the new plastic socket component is attached securely into place. The new ball and socket are joined together, and the incision is closed.

What is a “reverse” shoulder replacement?

When shoulder arthritis occurs in patients with torn rotator cuff muscles, a procedure known as a reverse shoulder replacement may be recommended. It is called a reverse replacement because it reverses the normal structure of the shoulder joint. With this procedure, the ball and socket configuration is reversed” the

ball portion of the implant is attached to the glenoid (where the socket normally is) and the artificial socket is attached to the humeral head (where the ball normally is) in the form of plastic cup. This configuration allows stronger deltoid muscles of the shoulder to take over much of the work of moving the shoulder, increasing joint stability.



What is shoulder resurfacing?

Some patients may be candidates for shoulder resurfacing. With shoulder resurfacing, the patient's damaged humeral head is not removed, but instead is sculpted to receive a metal "cap" that fits on the end of the bone. This cap functions as a smooth humeral head. This procedure can be less invasive than total shoulder replacement and can provide pain relief; however, your surgeon will advise the best option for our specific condition.

Why haven't I heard much about shoulder replacements?

Many people know someone who has found pain relief from hip or knee replacement, but few know someone who has had a shoulder replacement. It is true that shoulder replacement is not as common as hip and knee replacement, but the procedure is just as reliable and successful in relieving pain and restoring mobility.

Who can perform this procedure?

As with any surgical procedure, experience matters. Shoulder replacement is a complex procedure, and is best performed by an orthopedic surgeon who specialized in shoulder surgery, and not just knee and hip replacement. During residency training, most surgeons perform over 250 hip and knee replacements. However, some surgeons during their residency training may never see a shoulder replacement. Most surgeons wishing to specialize in shoulder reconstruction proceed to additional fellowship training following completion of their residency program.

How long will I be in the hospital?

Shoulder replacement surgery is performed on an in-patient basis and generally involves a hospital stay of 1-3 days; however, the length of the hospital stay can depend on many other factors. Your surgeon will advise you on what he/she believes is likely for your specific situation.

Will insurance cover it?

Shoulder replacement is covered by Medicare and Medicaid as well as most private insurance companies. Contact our insurance provider to determine coverage under your specific plan.

Am I too young to have a shoulder replacement surgery?

An orthopedic specialist who is experienced in shoulder replacement surgery can evaluate your particular situation and determine whether you are a candidate for the procedure. The performance of a prosthetic joint and how long it will last depends on many factors, including the type of implant used, your physical condition, bone quality, activity level and lifestyle. Patients younger than age 50 frequently undergo replacement of only the humeral head (ball). These younger, more active, individuals have greater risk of loosening the glenoid (Socket) implant over time. Replacement of the ball is still effective at providing pain relief in young, active patients.

Will my shoulder appear normal after surgery?

Most patients do not experience a dramatic change in the appearance of their shoulder or the natural contour of the shoulder. However, there will likely be a visible scar on the front of the shoulder from the incision.

Are there any interactions to consider with current medications I am taking?

Talk with your doctor about any medication that you are currently taking. You will be advised if you need to make any changes to your medication schedule. Prednisone and other steroids can cause delayed healing after surgery. Make sure your surgeon is aware of any steroid medication you may be taking, even if they are inhalers. Generally, patients are advised to stop taking prescription or over the counter anti-inflammatory medication, including aspirin and ibuprofen five days before surgery. These medications thin blood and can lead to excessive bleeding during surgery.

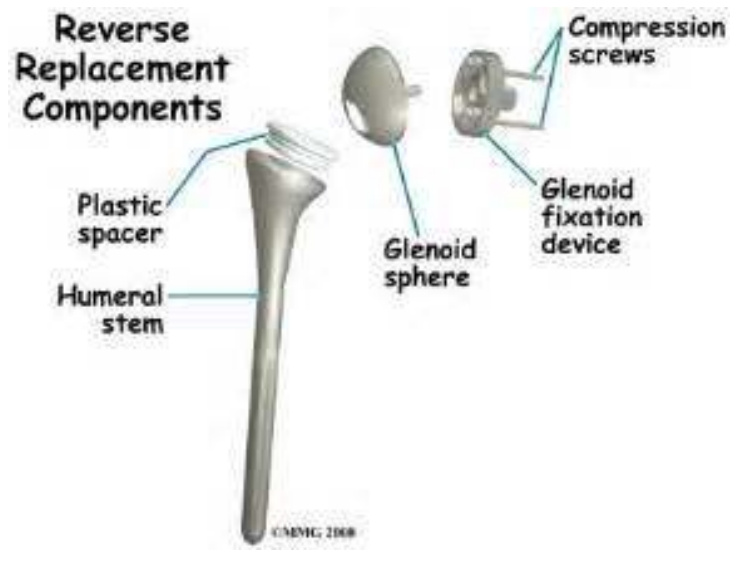
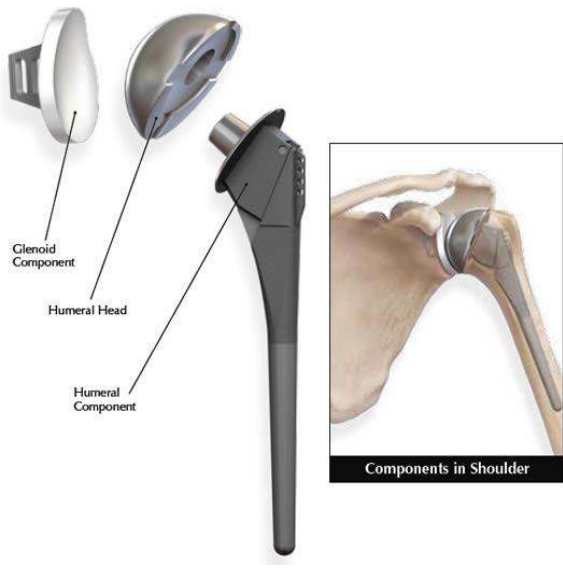
## **THE DEVICE**

What is the shoulder device made of?

There are several components that make up the shoulder replacement device. All of the parts are made from highly biocompatible materials, including titanium and cobalt chrome metals on the humeral side (ball and stem). On the glenoid side (The socket), a biocompatible plastic called polyethylene is used to make the implant. These are identical materials to those used in hip and knee replacements.

How reliable is shoulder replacement?

Results of shoulder replacement are positive overall. Studies have shown 93% survivorship of the device at 10 years, and 87% at 15 years. 83% of patients reported moderate or severe pain relief 12 years after surgery. Regarding range of motion, patients studied nearly doubled their arm elevation level after surgery. Shoulder replacement has been shown to reduce pain and improve mobility, but results will vary based on your particular situation. Your doctor can explain the outcome you should expect based on your age, physical condition and specific shoulder problems.



Is this a common procedure?

Advances in technology and materials have made shoulder replacement the third most common type of joint replacement, after hip and knees. Today, orthopedic surgeons are using shoulder replacement surgery with confidence to relieve pain and restore mobility in patients with compromised shoulder function.

How many have been replaced?

Shoulder replacement procedures began in 1980s and continues to grow each year. In 2009, more than 85,000 procedures were performed in the U.S. alone. Shoulder replacement is the fastest growing market segment of all joint replacements.

How long does it last?

How long the prosthetic shoulder lasts depends on many factors, including the type of implant used, the surgeon's expertise, the patient's physical condition, activity level and lifestyle. While prosthetic joints can provide increase mobility and pain relief for many years, it is true that they are simply not as strong as a natural joint and may not last the rest of your life. Most patients can expect their shoulder replacement to last 15-20 years, but most important to discuss your specific situation with a shoulder specialist.

Are there different shoulder implant options for men and women?

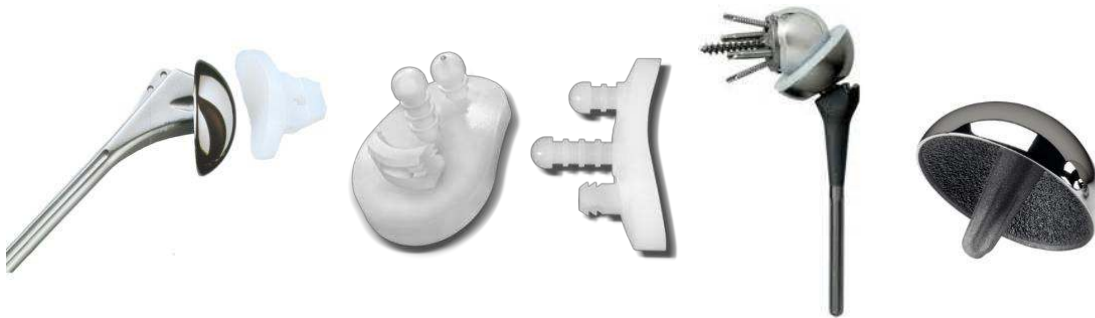
The components used for shoulder replacement are not different for men and women specifically; what differs is simply the size and type of the components based on a patient's anatomy. During the procedure, the surgeon carefully chooses the component that best matches your shoulder. The implants are available in a wide range of sized and configurations for a customized fit.

Is my weight and activity level a consideration for shoulder replacement?

An orthopedic surgeon who specializes in shoulders can best evaluate your condition and determine what kind of solution is right for you based on your physical condition and lifestyle. In general, overweight patients do just as well following surgery as patients of normal weight. Younger, more physically active patients may only have the humeral head (ball) replaced to avoid the possibility of the glenoid (socket) implant loosening with time.

Are there any side effects or complications to having an implanted device in my shoulder?

As with any surgery, there is always a risk of complications. Infection and glenoid (socket) component failure are the most common complications in shoulder replacement, a recent study conducted at Johns Hopkins Hospital found that shoulder replacement involved shorter hospital stays and fewer complications than knee or hip surgery.



## **THE RECOVERY**

Will I have pain?

Most patients are surprised by how little pain they experience afterwards. Many patients are off prescription pain medication five to seven days after surgery. After the initial pain from the surgery subsides, you should not have any chronic pain as a result of the implant. You may have some muscle soreness as you strengthen your muscles, but that will begin to improve in the weeks and months following surgery. Call your physician if you have any increased pain, swelling, fever or abnormal drainage.

How long is the recovery period?

Shoulder replacement surgery generally involved a hospital stay of 1-3 days. Your arm will be in a sling initially, and the shoulder may feel tender for a period of several weeks. Your health care team will work with you to begin your rehabilitation program, and demonstrate the exercises that you will perform at home over the next few months. Total recovery period generally ranges from three to six months, and your physician will schedule regular follow-up appointments with you during that time.

What is the physical therapy process?

Physical therapy is critical to the success of your new shoulder. Your rehabilitation program often begins as early as the day of your surgery, when your health care team guides you in gentle stretching and normal daily activities. You will be instructed in the exercises to perform at home, which are designed to gradually increase the use and strength of your shoulder. It is important to follow your doctor's instructions exactly and do your exercises regularly. In general, initial therapy involves stretching to help regain the normal shoulder range of motion. Later, strengthening exercises are added if necessary. Your surgeon will provide you with any specific restrictions based upon your individual situation. It is important to follow those restriction.

How soon can I return to normal activities after surgery and will I have any restriction?

Most people are able to return to normal everyday activities such as dressing themselves and grooming within the first 2 weeks after successful shoulder replacement surgery. Washing in the tub is often recommended for the first few days, and you can typically begin showering after 5 or 6 days. Your doctor will advise you on specific limitations, including the amount of weight you can lift using the arm that was operated on. Many surgeons restrict their patients not to lift anything heavier than a cup of coffee or glass of water for the first 4-6 weeks. Your doctor will also let you know when you can begin doing household chores such as raking, sweeping or mopping and when you can return to other activities. Contact sports or repetitive activities such as chopping wood or heavy lifting may be restricted in the long term.

What kind of help will I need?

Once you return home, it's a good idea to have family a family member or friend available to help you with daily activities such as washing, dressing and preparing meals, especially during the first week following surgery. If you do not have home support, ask your health care provider about an agency or facility that may be able to provide the help you need

How long until I can drive?

You must be off all pain medication before you consider returning to driving. Patients with minimal discomfort and access to a vehicle with an automatic transmission can usually return to driving between three to six weeks following surgery.

When can I return to work?

Your surgeon will advise you when you can return to work, depending on your recovery and the type of work you do. If you perform office duties you may feel capable of returning to work in 2-3 weeks. Any lifting or reaching jobs will require additional strength work prior to returning to work. This may take up to 3 months, depending on the specific job requirements

How long until I regain full use of my shoulder?

The total recovery period generally takes 3-6 months. After about 3 months, the range of motion you experience is generally at its maximum level, provided you followed the recommended physical therapy regimen. Further strengthening exercises can continue to improve the function of the shoulder as you regain use of previously restricted muscles. Most improvements are maximized by six months after surgery

What restrictions will I have using my shoulder long term?

People who have had a shoulder replacement are generally advised to avoid contact sports, jarring activities or repetitive heavy lifting, as these can place too much strain on your shoulder implants. Consult your physician about the specific activities that might affect your new shoulder.

## **THE RESULTS**

How successful is the shoulder replacement compared to hip or knee replacements?

Shoulder replacement surgery is very effective at restoring range of motion, strength and pain relief. You should expect similar results as those experienced with hip and knee replacements

How much will my range of motion improve?

In general, you can expect to achieve near normal range of motion following shoulder replacement surgery. However, patients with severely restricted motion that has been present for many years may be unable to achieve full motion despite a properly performed operation and dedicated physical therapy. Even in these situations, patients can expect to achieve 75% of normal motion.

Is the pain going to go away?

Shoulder replacement surgery can help reduce or eliminate shoulder pain and regain range of motion. It can help you return to normal daily activities that were previously limited by shoulder disease.

What happens if I wait to have my shoulder replaced?

When shoulder arthritis pain begins limiting your daily activities, causing you to lose sleep, and it is not responding to other treatment alternatives, it may be time to consider shoulder replacement surgery. By waiting too long, your range of motion can become severely limited, making the surgery more difficult and the results less certain. It is a good idea to discuss your condition early on with an orthopedic surgeon who specializes in a shoulder replacement, and learn about the options and timing that might be right for you

What other treatment options are available to manage my condition?

Early recommendations for arthritis may include rest, moist heat, over the counter or prescription anti-inflammatory medication and medication for pain relief. Physical therapy may be prescribed in the early stages, although this can become less effective and even damaging as the arthritis advances. Cortisone injections can provide temporary relief for pain, although it is not generally considered a long term solution. When these solutions are not effective, your orthopedic surgeon may discuss surgical alternatives with you, such as shoulder replacement surgery.