

most cases, some patients still experience pain and stiffness. No implant will last forever, and the patient's post-surgical activities can affect the longevity of the implant. Be sure to discuss these and other risks with your surgeon. To minimize the potential for complications, your surgeon may recommend a visit with your primary care physician prior to surgery to complete tests. You may also need to have your dental work up to date and may be shown how to prepare your home for your recovery.

## After Surgery

After surgery, you will probably be hospitalized for one to three days. The day after surgery, the bandages will be removed and you will begin conservative physical therapy to restore motion and promote blood flow to your joint. You may wear a sling for up to six weeks after surgery to protect the soft tissues in your shoulder while they are healing. During this time, a physical therapist will teach you a variety of stretching exercises that will help restore motion to your shoulder.

As you regain shoulder motion, you may start using weights or large rubber bands during physical therapy to help build strength. Your surgeon will determine the condition of your shoulder before prescribing strengthening exercises. Many patients are prescribed additional exercises that need to be performed three to four times a day for 10 to 15 minutes at a time. You may be able to perform these exercises in your home without the assistance of a physical therapist.

## Recovery

Patients who have had total shoulder replacement typically require many weeks before returning to any type of lifting or repetitive movement activities. Driving can normally be resumed four weeks after surgery, but only if your doctor approves and you are not taking any pain medication. Talk to your doctor before participating in an activity that may place excess stress or movement on your shoulder.

Every person's recovery time will vary, but most people should be able to drive in two to six weeks, garden in two months, and golf in three months. Your surgeon will tell you when you can return to these activities and will also tell you which activities to avoid.

Exercise is necessary for proper healing. Most doctors will recommend gentle arm therapy 24 to 48 hours after surgery. Therapy will begin in the hospital and continue after discharge for approximately six to eight weeks.

A regular exercise program at home to promote strengthening and mobility usually continues for up to 12 months after surgery. Your surgeon should set a follow-up schedule for the first year after surgery to evaluate your progress. Complications can occur with implants, so it is important to see your surgeon if you notice any unusual changes regarding your new joint.

## Summary

We realize that the decision to have surgery is sometimes difficult. Hundreds of thousands of others have made this choice, allowing them to return to more active lifestyles. It is important that you make the best decision for yourself. This information is not intended to replace the experience and counsel of your orthopaedic surgeon. If you have any further questions, please speak with your orthopaedic surgeon.

To learn more about Zimmer Biomet joint replacements, obtain helpful information for patients and caregivers, or for assistance in finding a surgeon familiar with our products and surgical techniques,

**call toll-free: 800-447-5633 or visit  
[zimmerbiomet.com](http://zimmerbiomet.com)**

**Important Note:** This brochure is intended to provide an overview of shoulder replacement surgery and should be reviewed with your doctor. It does not include all of the information needed to determine eligibility for shoulder replacement or for the proper use and care of artificial shoulder replacements. Please consult your surgeon for more information. Information may also be obtained by calling the toll-free number or visiting the web site. The toll-free number also can be used to obtain complete product contraindications, warnings, precautions, and possible adverse effects. Individual results may vary. Your results will depend on your personal circumstances. How long a shoulder replacement will last varies from patient to patient. It depends on many factors, such as the patient's physical condition, activity level, and body weight and the surgical technique. Replacement joints are not as strong or durable as a natural, healthy joint, and there is no guarantee that an artificial joint will last the rest of a patient's life. All shoulder replacements may need to be replaced at some point.

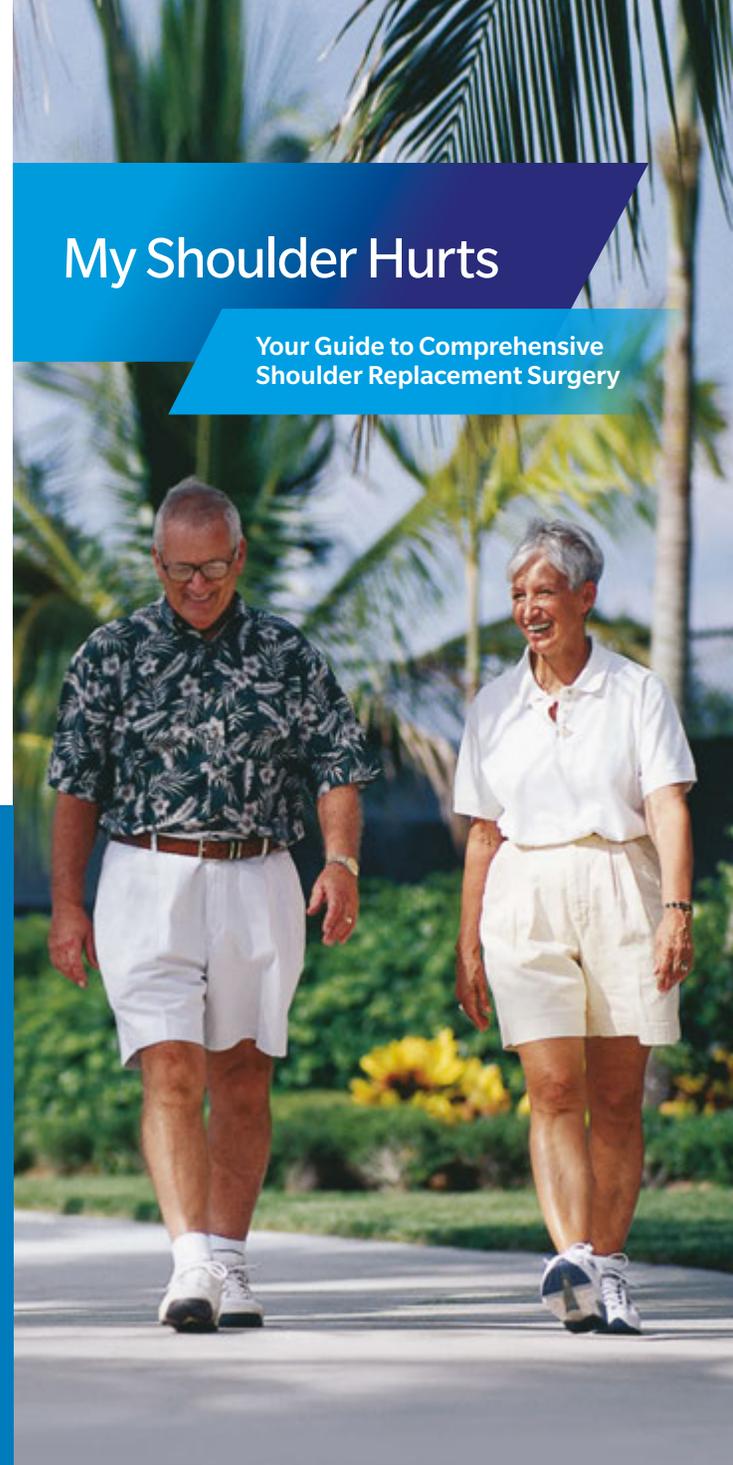
This device is available only on the order of a physician.



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# My Shoulder Hurts

Your Guide to Comprehensive  
Shoulder Replacement Surgery



## Your Guide to Understanding Osteoarthritis and Shoulder Replacement

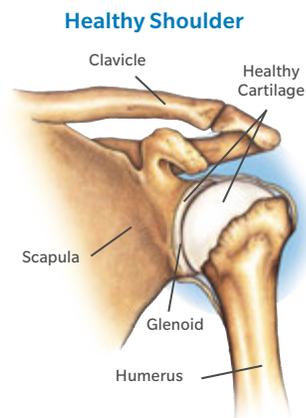
From pushing to pulling, lifting to throwing, the shoulder has the widest range of motion of any joint. Fortunately for many, the shoulder is one of the least likely of joints to develop arthritic conditions requiring surgery. However, certain conditions such as osteoarthritis and rheumatoid arthritis can require joint replacement surgery to restore motion and reduce or eliminate pain.

This brochure will help you understand basic shoulder anatomy, common reasons for total shoulder replacement surgery, the Comprehensive Shoulder System from Zimmer Biomet, and the surgical procedure. This brochure is for educational purposes only and is not intended to replace the expert guidance of your orthopaedic surgeon. Any questions or concerns you may have should be directed to your orthopaedic surgeon.

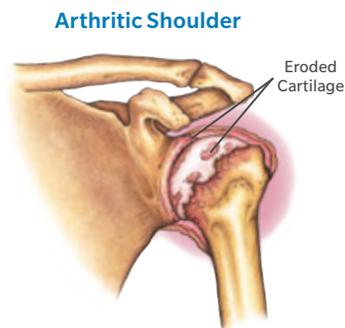


## The Shoulder

The shoulder joint consists of the head of the humerus (upper arm bone) and the scapula (shoulder blade). The head of the humerus moves against the scapula in a tiny depression called the glenoid, much like a golf ball on a tee. The glenoid's smaller size allows the wide range of motion in a healthy shoulder. The surfaces of the humerus and glenoid are covered with a lubricating tissue called cartilage, which provides the shoulder joint frictionless, pain-free movement.



Osteoarthritis, the most common form of arthritis, is a wear-and-tear condition that affects joint cartilage, typically developing after years of constant motion and pressure in the joints. As the cartilage continues to wear away, the joint becomes increasingly painful and difficult to move. Unfortunately, cartilage does not have the ability to repair or replace itself like other tissues in the body, which means damage is permanent. If conservative treatment options fail to provide relief, your surgeon may recommend total shoulder replacement. Indications for total shoulder replacement surgery include osteoarthritis, rheumatoid arthritis, avascular necrosis (lack of blood supply that leads to bone death), bone fracture, and trauma not treatable by other methods.



## Total Shoulder Replacement

Shoulder replacement surgery, also called arthroplasty, uses implants to resurface the bones in the joint, re-creating the smooth, gliding surfaces that were once intact. The word *replacement* makes one think that surgeons remove the entire shoulder. In truth, surgeons only resurface the damaged bone and cartilage at the ends of the bones in the joint.

During surgery, the joint is exposed by an incision made on the front of the shoulder. The damaged tissue is removed to allow for the replacement implants, which are made from a biocompatible (body-friendly) metal alloy and polyethylene (plastic).

Surgery is performed while you are under anesthesia, which your physician will explain to you before your surgery. The length of surgery may be approximately one and a half to two hours. Care before surgery and time spent in the recovery room can add an additional two to three hours before you return to your hospital room.

## The Comprehensive Shoulder System

The Comprehensive Shoulder System from Zimmer Biomet is an evolutionary design based on the successful clinical heritage of the Bio-Modular Shoulder System. It features unique engineering, industry-leading biomaterials, and versatile offerings that enable surgeons to provide for patient-specific selection when choosing an implant.



## Complications

While uncommon, complications can occur during and after surgery. Complications include, but are not limited to, infection, implant breakage, nerve damage, and fracture. Any of these complications may require additional surgery. Although implant surgery is extremely successful in