

# Relieving Shoulder Arthritis Pain

## Treatment Advances Continue to Evolve

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**While shoulder arthritis** is less common than hip or knee arthritis, it is no less debilitating. In general, the symptoms associated with shoulder arthritis include pain, decreased range of motion, and limited function. Management and treatment decisions are based on the goals of relieving pain and maintaining or improving function.

### Who Is at Risk?

Primary osteoarthritis most often occurs among elderly women and is seen less commonly in men and younger individuals. When osteoarthritis presents in the latter two groups, it is typically related to an injury or heavy weightlifting. Secondary osteoarthritis may follow chronic dislocations or may relate to previous surgical procedures directed at correcting shoulder instability. Rheumatoid arthritis is the most common form of inflammatory arthritis and affects the shoulder in approximately 90 percent of rheumatoid arthritis patients.

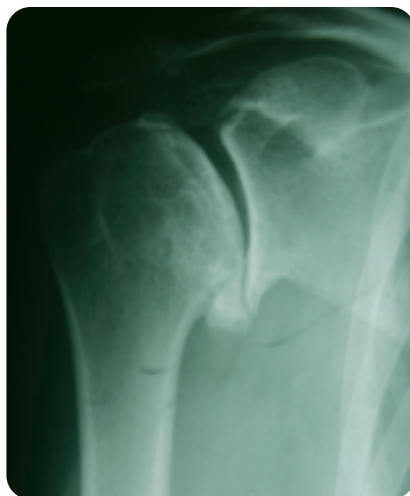
### Diagnostics

Excluding the earliest stages, shoulder arthritis is easily distinguished on routine x-rays. The normal shoulder x-ray will demonstrate a clear space between the humeral head (ball) and glenoid (socket). The joint space between the humeral head and glenoid in the arthritic shoulder is either narrowed or obliterated, and a large spur often develops below the humeral head (*Figure 1*).

Early arthritic changes undetected by x-rays are sometimes detected by advanced imaging studies such as magnetic resonance imaging, or MRI.

### Conservative Treatment

Physical therapy is often very effective in improving motion and strength. The most important concept is that



*Figure 1 – Arthritic shoulder*

the patient commits to a home therapy program directed by the physician or therapist. The application of heat, hydrotherapy, and ultrasound are also useful in restoring motion to the stiff shoulder.

Oral anti-inflammatory medications, over-the-counter pain medications, or intra-articular cortisone injections may assist in pain relief. Activity or occupational modification is also sometimes required.

### Minimally Invasive Surgery

Arthroscopic shoulder surgery represents a minimally invasive approach for addressing mild to moderate arthritis that has not responded to conservative care. During the arthroscopic surgery, loose debris is removed, and unstable cartilage flaps are smoothed — similar to removing a hangnail with a fingernail clipper.

Shoulder stiffness is often improved by performing selective releases of the tight joint capsule, or lining. Although this may not reverse or correct the disease, selected patients show a significant clinical benefit in terms of pain relief and improved motion.

### Shoulder Replacement

Shoulder replacement surgery is similar to that of the hip or knee and involves replacing one or both of the joint surfaces. The deformed humeral head is removed, and a metal stem is placed into the bone's center. An appropriately sized head is then placed onto the stem, replacing the ball. This is referred to as a hemiarthroplasty.

If the socket is determined arthritic during examination, a polyethylene (plastic) socket is cemented onto the bone to produce a smooth surface for the replaced head to rotate. This is referred to as total shoulder replacement or total shoulder arthroplasty (*Figure 2*).

Humeral-head resurfacing and biologic resurfacing of the socket represent less conventional approaches to joint replacement surgery (*Figure 3*). These procedures conserve more bone than conventional joint replacement and are considered in young and active patients' treatments.

### Replacement Results and Recovery

Shoulder replacement offers reliable pain relief and improved functional results among patients with both



*Figure 2 – Total shoulder replacement*

rheumatoid arthritis and osteoarthritis of the shoulder joint. The ideal candidate is older than 55 years of age and will place lower demands on



Figure 3 – Shoulder replacement with humeral-head resurfacing

the replacement than a younger, more active patient.

Although both hemiarthroplasty and total shoulder arthroplasty offer successful results, total shoulder arthroplasty currently appears to offer improved pain relief as compared to hemiarthroplasty.

Although technically demanding, the actual procedure is the easiest portion of the treatment. The postoperative rehabilitation, however, is difficult and requires a firm commitment from the patient to complete the exercises on a daily basis, starting in the recovery room and continuing for four to six months.

Patients usually notice a significant improvement in pain relief within the first four to six weeks, followed by improved strength and function within the first several months. A motivated patient can maximize

positive results by playing an integral role in his or her own recovery.

#### **On the Horizon**

Studies of viscosupplementation in the arthritic knee (Hyalgan, Synvisc, Supartz) show beneficial effects in terms of pain relief. Pending FDA approval, this may also benefit patients with arthritic shoulders, especially since the shoulder is not a weight-bearing joint.

The reverse ball-and-socket joint that recently gained FDA approval may represent a joint replacement alternative to complex arthritic conditions in which the rotator cuff is damaged and unrepairable.

Advances in the treatment of arthritis and associated conditions continue to evolve rapidly, offering options and hope to patients experiencing shoulder pain. 🤖