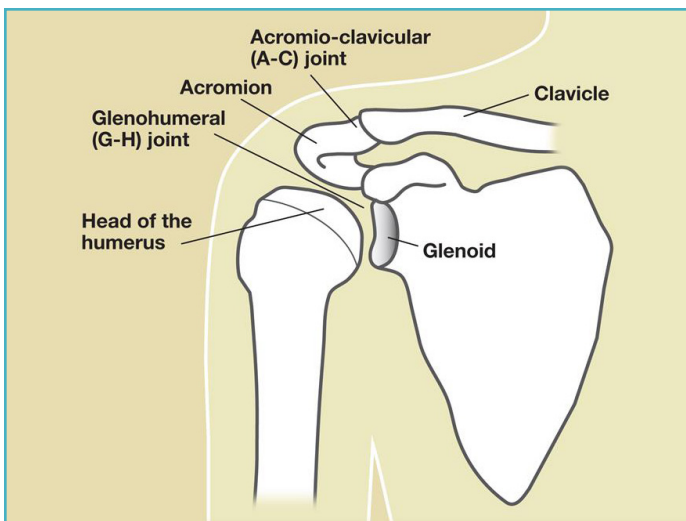


Osteoarthritis is the most common type of shoulder arthritis. This is also known as degenerative joint disease. Less common types of shoulder arthritis are rheumatoid arthritis (inflammatory) and traumatic arthritis.

In osteoarthritis, the smooth cartilage that covers the ends of the bones gets worn away. This causes the rough bones to rub against each other. This leads to irregular motion as the bones scrape against each other and cause bony spurs called osteophytes. These are bony growths which form as the bone tries to heal itself. Irregular motion, bone spurs, and inflammation can result in pain and loss of motion in the shoulder.

There are two joints within the shoulder that can be affected by osteoarthritis. The main joint that provides most of the shoulder motion is a ball-and-socket joint called the glenohumeral (G-H) joint. This is where the humerus (arm bone) meets the scapula (shoulder blade). The humeral head is the ball side. The glenoid part of the scapula is the socket side. A soft tissue bumper called the labrum deepens the socket. The other smaller joint in the shoulder that does not provide much motion is the acromioclavicular (A-C) joint. This is the joint that connects the collarbone and the scapula (Figure 1).



**Figure 1:** The most common type of shoulder arthritis is osteoarthritis, which affects the glenohumeral and acromioclavicular joints shown here.

## Causes

Shoulder arthritis is more common in older people, usually over age 50. Younger people can develop arthritis after trauma or other injuries to the shoulder such as a fracture, dislocations or infection. Arthritis can be hereditary as well, which means it can run in families.

## Signs and Symptoms

The most common complaint of someone with shoulder arthritis is pain. The pain worsens with activities and improves with rest. Activities that require the arms to reach over the head are usually most painful. Arthritis of the G-H joint usually hurts in the back of the shoulder. In contrast, A-C arthritis hurts on “top” of the shoulder at the end of the collar bone.

In addition to pain, patients with shoulder arthritis complain of loss of motion. The bones are not able to slide past another easily, so the shoulder does not move as well. This can also cause a grinding sensation (called crepitus). This is caused by the bones rubbing against one another without cartilage between them.

Fortunately, not everyone who develops arthritis develops pain and loss of motion. In fact, some people with severe joint destruction have few symptoms.

## Diagnosis

Diagnosis of shoulder arthritis begins with a history and physical exam. During the exam, the physician will be looking for:

- Pain when moving the shoulder or arm
- Grinding of the joint
- Weakness of the shoulder
- Tenderness to touch

If your doctor is suspicious of shoulder arthritis, he or she may order an X-ray. X-rays show the bones of the shoulder and can show:

- Decreased space between the bones
- Bone cysts
- Bone spurs at the edges of the joint (Figure 2)

If X-ray demonstrates arthritis of the A-C joint, you could be at risk for a rotator cuff injury. If your doctor is suspicious of this, an MRI may be needed.

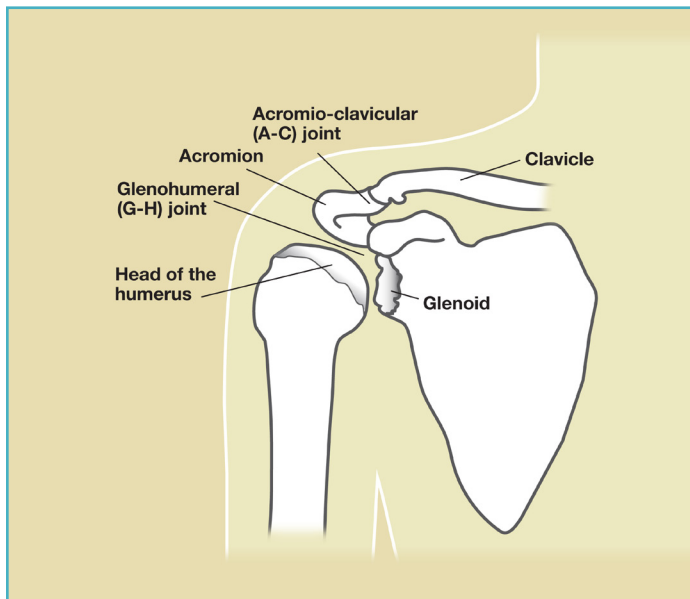
## Treatment

Treatment of shoulder arthritis starts with non-surgical treatment, and some of those options may include:

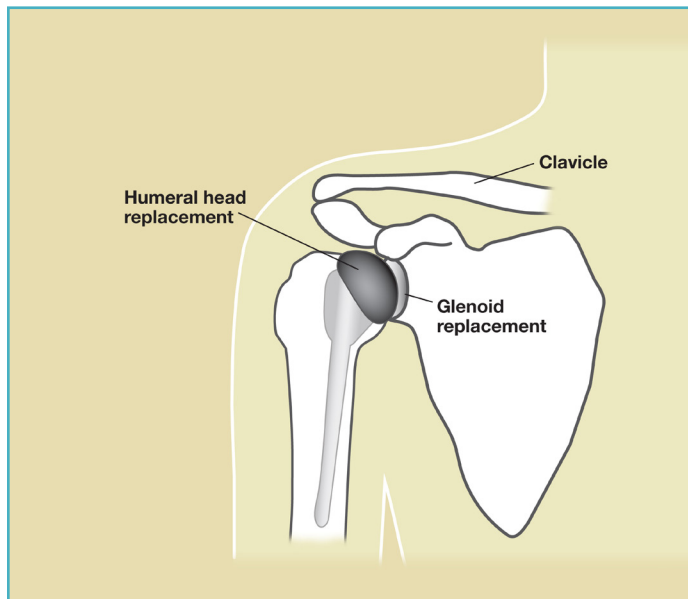
- Rest
- Activity modifications
- Physical therapy
- Non-steroidal anti-inflammatory medications such as ibuprofen
- Cold treatments and/or moist heat
- Cortisone shots (steroid injections)

If these treatments do not work to decrease your symptoms, then surgery may be discussed. For arthritis of the A-C joint, this would usually involve removal of the end of the clavicle. For arthritis of the G-H joint, surgery usually involves a joint replacement operation. During this operation, the damaged surfaces of the ball and socket shoulder joint are replaced with metal and plastic (Figure

3). If there is a large rotator cuff tear that may not be able to be reliably repaired and arthritis at the same time, you may need a “reverse” total shoulder. The reverse shoulder turns the humeral head into the cup side of the joint and the glenoid into the head side which moves the center of rotation away from the body. This helps lift the arm without the rotator cuff.



**Figure 2:** In shoulder arthritis, loss of joint space, bone cysts, and bone spurs at the edges of the joint can become present, as shown here.



**Figure 3:** Sometimes in shoulder arthritis, a portion of the joint needs to be replaced, which is called hemiarthroplasty.