Glenohumeral Osteoarthritis

A joint is where two or more bones come together, letting you bend at the knee, elbow, shoulder, ankle, hand as well as in other parts of the body. A healthy joints glides easily without pain because a smooth, elastic tissue called articular cartilage covers the ends of the bones that make up the joint.

In the progressive disease osteoarthritis (OA), the covering on the ends of bones gradually wears away, becoming frayed and rough, like sandpaper. This can make it painful to move the joint. Also known as "wear and tear" arthritis, OA usually develops after many years of use and affects people who are middle aged or older. Other risk factors for OA include obesity, traumatic injury to a joint (dislocation or fracture), family history of OA, and occupational factors such as performing repetitive tasks.

Although most people think of the shoulder as a single joint, there are really two joints in the area of the shoulder. One is located where the collarbone (clavicle) meets the tip of the shoulder bone (acromion). This is called the acromioclavicular or AC joint. The junction of the upper arm bone (humerus) with the shoulder blade (scapula) is called the glenohumeral joint. Both joints may be affected by arthritis, however OA is more common in the AC joint than in the glenohumeral joint.

**Signs and Symptoms**

The most common symptom of arthritis of the shoulder is pain. Joint pain usually develops gradually and progressively worsens. The pain may feel dull or aching. Pain may be worse in the morning and feel better with activity. Vigorous activity may cause pain to flare up. AC joint pain is focused on the top of the shoulder. When the glenohumeral joint is affected, the pain is often centered in the back of the shoulder, or "deep inside" the shoulder joint. Many people say the level of discomfort they have changes with weather conditions.

Limited motion is another symptom of glenohumeral OA. It may become more difficult to lift your arm to comb your hair or reach up to a shelf. You may hear a clicking or snapping sound and feel grinding (crepitus) as you move your shoulder. Loose fragments of cartilage and other tissue can cause locking or "sticking" when you use the shoulder. As the disease progresses, any movement of the shoulder causes pain, night pain is common and sleeping may be difficult.
Common with AC joint OA, the joint may stiffen and look swollen, enlarged or "out of joint." A bump may develop over the joint and be very tender. Cross body and overhead motions may become increasingly painful.

**Diagnosis & Treatment**

A physical examination and X-rays are needed to properly diagnose arthritis of the shoulder. During the physical examination, your physician will look for:

- Weakness (atrophy) in the muscles
- Tenderness to touch
- Extent of passive (assisted) and active (self-directed) range of motion
- Any signs of injury to the muscles, tendons and ligaments surrounding the joint as well as signs of previous injuries
- Involvement of other joints (an indication of rheumatoid arthritis)
- Crepitus with movement
- X-rays of an arthritic shoulder show a narrowing of the joint space, changes in the bone and the formation of bone spurs (osteophytes).
- If an injection of a local anesthetic into the joint temporarily relieves the pain, the diagnosis is confirmed.

**Conservative Treatment**

Initial treatment of arthritis of glenohumeral joint OA and AC joint OA is conservative.

- Rest or change activities to avoid provoking pain; you may need to modify the way you move your arm to do things.
- Take nonsteroidal anti-inflammatory medications such as aspirin or ibuprofen to reduce inflammation.
- Ice the shoulder for 20-30 minutes two or three times a day to reduce inflammation and ease pain.
- Dietary supplements such as glucosamine and chondroitin sulfate may be helpful.

**Surgical Intervention**

If conservative treatment does not reduce pain, there may be surgical options available. As with all surgeries, there are some risks and possible complications. Your doctor will review this and all other pertinent information with you.