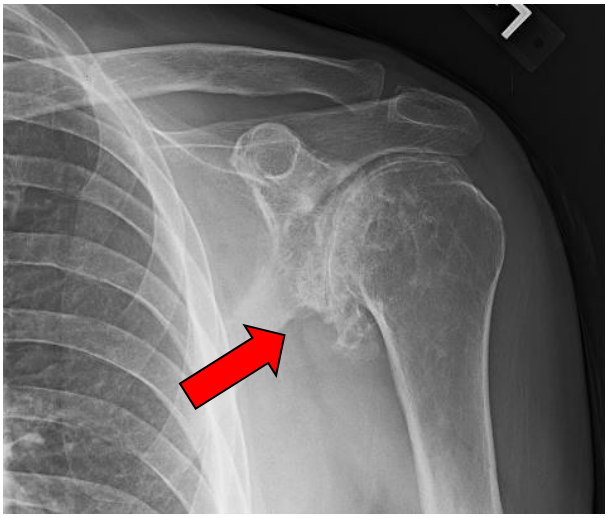
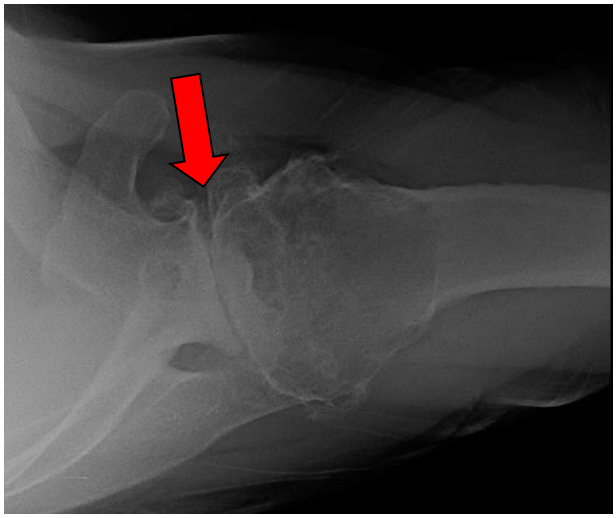
Glenohumeral Shoulder Joint Arthritis

Glenohumeral (shoulder) arthritis occurs when the protective cartilage on the surface of the glenoid (socket of the shoulder joint) and the humeral head (ball of the shoulder joint of the upper arm) wears out. This cartilage surface breaks down from genetic susceptibility, excessive joint loading over time, systemic disease or following injury. As a result, shoulder pain and limitations occur as the worn ends of the bones in the joint grind together, deform, and cause inflammation and physical limitations.



X-ray of shoulder joint arthritis



X-ray of shoulder arthritis-axial view

Frequent Signs and Symptoms

- Shoulder pain, weakness, and decreased range of motion
- Shoulder pain worsens with activity
- Shoulder stiffness is worse in the morning or with lack of activity
- Pain at night that affects sleep due to activity during the day

Etiology (Causes)

- Previous injury to the glenohumeral joint that results in premature wearing out of the protective cartilage on the ends of the bones at the joint
- Heavy and/or repetitive loading of the joint such associated with weight lifting and heavy labor
- Patients genetically more susceptible to developing arthritis. Patients with susceptibility may develop arthritis regardless of activity level
- Inflammatory or autoimmune diseases that damage articular cartilage, such as rheumatoid arthritis

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Risk Factors

- Family history of arthritis
- History of previous injury to the shoulder
- Rheumatoid arthritis or other systemic disease-related arthritis, systemic lupus erythematosus (SLE), psoriatic arthritis, ankylosing spondylitis, thromboembolic disease and avascular necrosis, or acromegaly
- Previous shoulder surgery and persistent decreased range of motion
- Large chronic rotator cuff tears

Prevention

- Maintain appropriate conditioning, including shoulder and arm flexibility, muscle strength, and endurance
- Ensure proper protective equipment fit (for work or sports)
- Maintain proper technique when exercising or using shoulder repetitively, and have a coach/professional correct improper techniques
- Avoid overuse
- Exercise in moderation

Outcomes

The treatment and outcome depends upon individual symptoms. Not all patients with X-ray findings of glenohumeral (shoulder) joint arthritis have pain. Typically, it is the younger, more active patients (who place higher demands on their shoulders) that have more pain. Older, less demanding patients can usually expect excellent results by utilizing mild activity restrictions, ice, anti-inflammatory medications, physical therapy, and shoulder joint injections. For patients with symptomatic glenohumeral (shoulder) arthritis that does not respond to conservative treatment, surgery to replace the damaged surfaces of the shoulder joint can eliminate pain and allow an improved functional recovery.

Potential Complications

- Pain and inflammation of the glenohumeral joint may persist without treatment
- Weakness and de-conditioning of the shoulder because of pain and limitations
- Potential complications associated with surgery:
  - Persistent pain
  - Infection and bleeding
  - Loosening of prosthetic implants
  - Instability of the shoulder joint
  - Nerve injury
  - Failure of the rotator cuff

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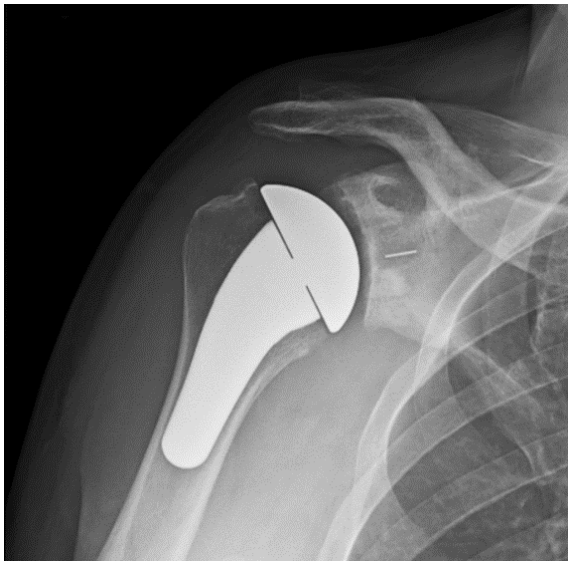
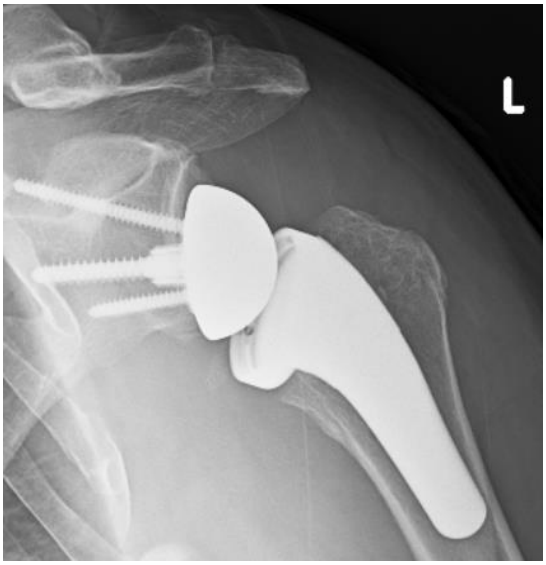
General Treatment Considerations

Initial treatment consists of activity modification (stop the aggravating activities) as well as rest, ice, and anti-inflammatory medications to relieve pain. Specific physical therapy programs and injections can reduce inflammation and pain and improve motion and function. Surgery is not required even if the patient continues to have symptoms despite conservative treatment. The condition does not progress rapidly and surgery can usually be performed at any point when the patient decides symptoms are sufficient to undergo surgery. In rare cases, extreme loss of shoulder motion and erosion (destruction) of the glenoid (socket of the shoulder joint) call for earlier intervention and surgery.

When symptoms warrant, Dr. Chudik can replace the damaged and arthritic joint surfaces of the shoulder. In general, shoulder replacement surgery is well-tolerated. Surgery often is performed as an outpatient and the patient can return home the same day as surgery. The surgery is performed under limited general anesthesia and an interscalene nerve block (local anesthetic that numbs the entire shoulder and arm and lasts for 12-24 hours after surgery). As the rotator cuff needs to be taken down and repaired under current techniques, a sling must be worn for six weeks after surgery before active shoulder motion (using your own shoulder muscles to move the shoulder) can begin. Physical therapy is begun two to three days following surgery to restore shoulder range of motion while protecting the repaired rotator cuff portion of the shoulder. Shoulders with a compromised or chronically torn and irreparable rotator cuff or severe deformity may require a reverse shoulder replacement.



Post-operative X-ray of an anatomic shoulder replacement



Post-operative X-ray of a reverse shoulder replacement

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Possible Medications

- Nonsteroidal anti-inflammatory medications, such as ibuprofen and Naprosyn®, or other minor pain relievers, such as acetaminophen, can be helpful. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur. **Please, DO NOT take any anti-inflammatory medications within seven days of surgery.**
- Prescription pain relievers are usually not prescribed for this condition except for post-surgical pain control.

Modalities

- Cold is used to relieve pain and reduce swelling/inflammation from the arthritis. Ice packs or cryotherapy devices can be applied to the joint for 20 minutes, three to four times per day as needed. Be careful not to apply the ice directly on the skin and do not leave the ice on too long as it can cause severe, permanent injury to the skin.

Notify My Office If Symptoms Worse

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