

Title: Osteoarthritis of the glenohumeral joint

Author: David Ou-Yang MS4

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Abstract: It is estimated that osteoarthritis of the shoulder affects over 30% of patients over the age of sixty, and it can lead to pain, crepitus, loss of motion, and loss of function. Multiple treatment options are available, both surgical and non-surgical. The following is a patient education tool dedicated to osteoarthritis of the glenohumeral joint.

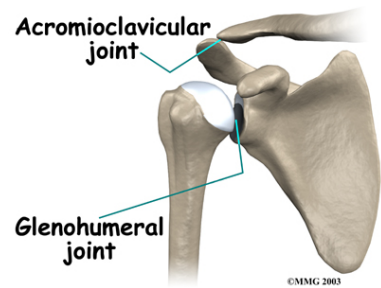
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## OSTEOARTHRITIS OF THE GLENOHUMERAL JOINT

### Anatomy

Many people think the shoulder is made of several joints, but it is only made of two.

One joint is formed where the collar bone (clavicle) meets the shoulder bone (acromion) and is called the acromioclavicular joint (AC joint).



The other joint occurs where the upper arm bone (humerus) meets the shoulder blade (scapula) and is called the glenohumeral joint.

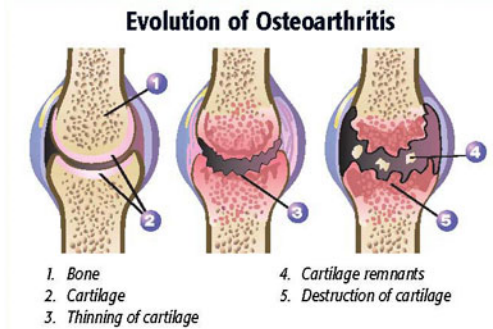
Both joints may be affected by arthritis, but your symptoms will be different depending on what joint is affected.

### What is Osteoarthritis?

Osteoarthritis is “wear-and-tear” arthritis. In osteoarthritis, the smooth covering of your bones inside a joint (cartilage) becomes worn down. Now, the joint can become inflamed and people will often feel pain. Osteoarthritis can involve many different joints, not just the shoulder joints.

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### Who does osteoarthritis affect?

Osteoarthritis usually affects people over 50 years of age. However, it can also develop after an injury. Examples include fracture of the shoulder, dislocation of the shoulder, and rotator cuff tear (the rotator cuff is made of shoulder-stabilizing muscles).

### What are the symptoms of osteoarthritis?

- 1.) Pain with limitation of motion (the pain often worsens after activity)
- 2.) Stiffness after inactivity (when awakening in the morning.
- 3.) Continual or Occasional Swelling

### What Happens if the glenohumeral joint is involved?

If the glenohumeral joint is involved, you will often feel pain in the back of the shoulder.

As the disease worsens, you may feel pain with any movement of the shoulder or have trouble sleeping at night from pain.

Osteoarthritis can also cause decreased shoulder motion, stiffness, and swelling. You may have difficulty lifting your arm to comb your hair or reach up to high places.

You may also hear clicking or snapping (crepitus) when you move your shoulder.

### How is osteoarthritis of the glenohumeral joint diagnosed?

Your doctor will need to do a physical exam and take X-rays to make the diagnosis.

Your doctor will look for these things during his/her physical exam:

- 1.) Weakness
- 2.) Tenderness to the touch
- 3.) Decreased range of motion of the shoulder
- 4.) Signs of old injury
- 5.) Crepitus (clicking or snapping sounds with motion)
- 6.) Pain when pressure is placed on the joint

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On the X-Rays, you may see narrowing of the joint space, bony changes, and bone spurs.

### **How is osteoarthritis of the glenohumeral joint treated?**

Usually, initial treatment does not involve surgery. Non-surgical treatment includes:

- 1.) Rest and avoid motions that cause the pain
- 2.) Icing the shoulder 2-3 times daily.
- 3.) Physical Therapy
- 4.) Aspirin and ibuprofen can decrease inflammation and pain.
- 5.) Dietary supplements, such as glucosamine and chondroitin sulfate.

- 6.) Corticosteroid injections may be given by your doctor



### **What about surgery?**

If non-surgical treatment does not reduce the pain, your doctor may recommend surgery. There are risks and complications with surgery, and you should talk to your doctor about these.

Arthritis of the glenohumeral joint can be treated by the following procedures:

- 1) Hemiarthroplasty - only the head of the upper arm is replaced with a prosthesis
- 2) Total shoulder arthroplasty – the entire shoulder joint is replaced
- 3) Reverse shoulder arthroplasty

Surgical treatment is very effective in reducing pain and improving range of motion.



### **Which surgery is best for me?**

You should talk to your doctor about what surgery is best for your condition.

Reverse shoulder arthroplasty is done if you have arthritis AND your rotator cuff muscles do not function properly.

Based on **short-term** studies, total shoulder arthroplasty is better than hemiarthroplasty for improving overall function of your shoulder. **However, this has not been shown in long-term studies.** Also, there is still disagreement as to which surgery (total shoulder arthroplasty or hemiarthroplasty) results in less pain.

Short term studies show there is no difference in strength or mobility between people who had total shoulder arthroplasty and those who had hemiarthroplasty.

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### ***For more information visit...***

American Academy of Orthopaedic surgeons -

<http://orthoinfo.aaos.org/>

Mayo Clinic - <http://www.mayoclinic.com>

The Southern California Orthopaedic Institute -

<http://www.scoi.com/>

The Cleveland Clinic - <http://my.clevelandclinic.org/>