

## The Shoulder Replacement

A total shoulder arthroplasty (TSA) is a surgery to replace the damaged parts of the “ball and socket” shoulder joint with an artificial prosthesis. The damage to the shoulder can be the result of a number of causes including degenerative joint diseases like arthritis or a traumatic fall:

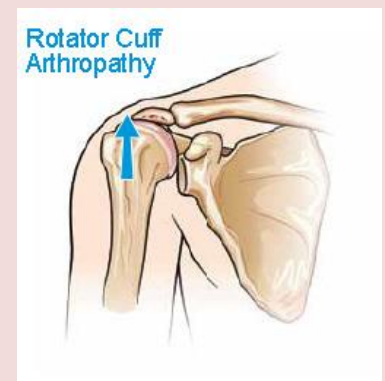
Causes

### ARTHRITIS

- **Osteoarthritis:** this is an age-related form of arthritis, typically occurring in those over 50 years of age. The cartilage between the bones of the shoulder wears away, causing the bones to rub against one another resulting in shoulder pain and stiffness.
- **Rheumatoid Arthritis:** Inflammatory arthritis where the membrane surrounding the shoulder joint is chronically inflamed, causing damage to the cartilage.
- **Post-traumatic Arthritis:** Can occur after a serious injury to the shoulder joint. A traumatic event may cause a tear or damage to the cartilage that worsens over time to result in limited shoulder function and joint pain.



**ROTATOR CUFF ARTHROPATHY:** May occur following a chronic rotator cuff tear. The changes to the joint from the rotator cuff tear can build up and result in arthritis and destruction of the joint cartilage.



**FRACTURES:** A fracture of the humerus bone (the ball of the ball and socket) may be so severe that it cannot be pieced back together. Additionally, the blood supply to the bone pieces may be compromised. A shoulder replacement surgery may be the only option for fractures of this severity.

**TSA**

Also known as an Anatomic Total Shoulder Arthroplasty, this shoulder replacement mirrors the anatomy of the shoulder joint, replacing the top of the humerus bone with a metal ball and stem and the glenoid surface with a plastic socket. Patients with osteoarthritis and those with intact rotator cuff tendons are typically recommended an anatomic TSA.

**RTSA**

A reverse prosthesis is a newer technology that utilizes a “non-anatomic” shoulder replacement in patients who have shoulder arthritis and are without normal rotator cuff muscles and tendons. This means the “ball and socket” are reversed. This prosthesis can also be used as a salvage procedure for failed surgery or in older patients with severe fractures of the proximal humerus (shoulder) that may be beyond surgical repair (due to loss of bone or a large number of fracture pieces).



## HEMI- ARTHROPLASTY



Depending on the damage to the shoulder joint, only the humerus may need to be replaced. A hemi-arthroplasty uses similar components to the anatomic TSA, but replaces only the ball of the joint with a metal ball and stem. If the humerus is severely damaged, but the socket is normal this may be the suggested treatment.