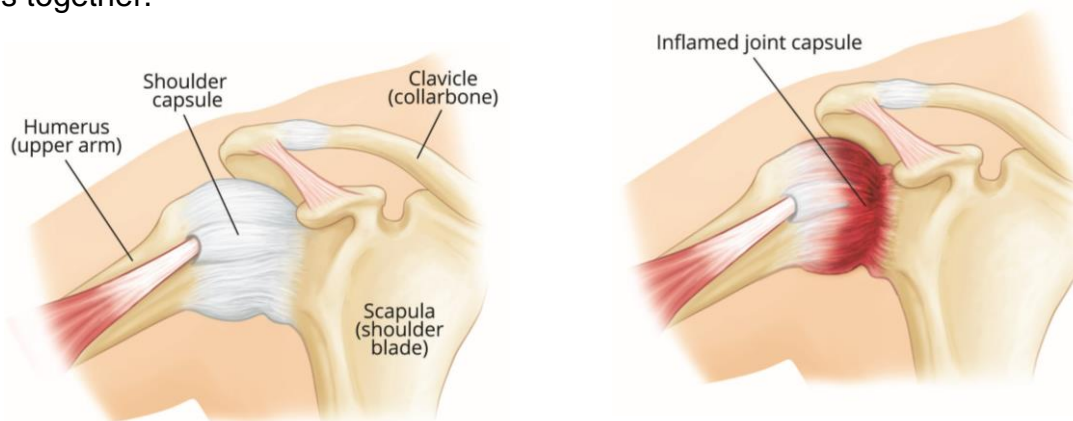


## **Adhesive Capsulitis (Frozen Shoulder)**

### **What makes up the shoulder joint?**

The shoulder joint is composed of 3 bones, the “ball” of the humerus (arm bone), sits on a very narrow “socket” or glenoid of the scapula (shoulder blade) and the clavicle (collar bone) connects the joint to the rest of the body. The ball and socket allows for mobility of the shoulder. Surrounding the joint is a flexible capsule that helps to hold the bones together.



### **Why does the shoulder “freeze”?**

The cause of this is not well understood. In people with adhesive capsulitis, the shoulder capsule thickens and becomes less flexible. Often times the joint fluid also decreases. It is more common in women than men, and most commonly affects people in their 40s-60s. It is much more common in individuals with diabetes or other issues with the endocrine system. It can also occur following an injury, even minor injury, or surgery to the shoulder.

### **What are the symptoms?**

Adhesive capsulitis causes pain and decreased range of motion of the shoulder. It is characterized by 3 phases. Phase 1, “freezing”, involves gradual worsening of deep shoulder pain with eventual loss of range of motion. Phase 2, “frozen”, often involves improvement of the pain with continued limitations in range of motion. Finally, phase 3, “thawing”, leads to gradual improvement of symptoms. Fortunately, the symptoms typically resolve without invasive intervention, and the process from freezing to thawed can take upwards of 18 months.

## **Do I need surgery?**

Surgery is not typically indicated for this problem. Treatment consists of aggressive stretching exercises with the guidance of a physical therapist. Pain is treated with over the counter pain medications, moist heat, and ice. An intra-articular corticosteroid injection may be considered as well, but should be determined on a case-by-case basis.

## **Are there any adverse outcomes?**

Pain may be present for a few years in some individuals. Over-aggressive physical therapy can aggravate symptoms and could lead to a fracture of the humerus. Surgical treatment comes with risks and should be considered as a last resort.