

Definition: Stiff or frozen shoulder with decreased range of motion

Etiology

Exact cause of frozen shoulder is unclear, but the shoulder capsule thickens and becomes tighter around the humeral head with little synovial fluid; resulting in decreased range of motion. Also the rotator cuff muscles (infraspinatus, supraspinatus, teres minor, and subscapularis) become inelastic and contracted. Inflammation causes pain with motion, causing the individual to resist movement.

Pathophysiology

Although the cause of adhesive capsulitis is allusive a few mechanisms have been proposed to be the cause of the injury. Microvascular disease and diabetes could play a role in predisposing an individual to frozen shoulder, by causing abnormal collagen repair of the joint capsule. Immobilization of the joint due to trauma associated with inflammation or stroke also could be a cause of frozen shoulder.

Treatment

Aggressive joint mobilization and stretching of the tight muscles to increase range of motion. Electrical stimulation is used to reduce pain along with ultrasound to heat and relax tense muscles. Corticosteroid injections are used to decrease pain and inflammation. Individuals who have little or no improvement after 6 to

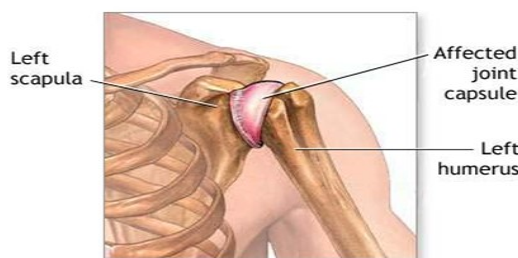
Symptoms

Pain is reported in all directions of movement including active and passive movements.

Risk Factors

Frozen shoulder is more common in adults over the age of 50, but can happen to younger individuals as well.

Patient Education



Picture from:

<http://www.scripps.org/encyclopedia/graphics/images/en/8811.jpg>

Physical therapy relationship/ treatment

Heat is applied to patients to relax the muscles. Joint mobilization techniques are performed to increase range of motion. Exercises to increase range of motion include pulley exercises, wall ladder or wall walking, and cane exercises. Electrical stimulation is applied with ice to decrease inflammation and decrease levels of pain.

Prognosis

Most individuals recover with time and conservative treatment within 1 to 2 years. However, during this time, affected individuals can be significantly limited in shoulder activities. About 60% of individuals are left with some permanent loss of shoulder motion. Individuals with diabetes are particularly predisposed to slow and incomplete recovery.