Scapular Dyskinesis/ SICK Scapula

The scapula is the large triangular-shaped bone at the back of your shoulder frequently known as the shoulder blade. Its only attachment to the rest of the skeleton is through the collarbone at the acromioclavicular joint. Therefore, the bone is primarily held in place by the attached and surrounding muscles. Many muscles use the large area of the scapula for attachment and they enable the vast range of shoulder motion. At the outer edge of the scapula a shallow socket forms and is where the humeral head sits forming the shoulder joint (glenohumeral joint). Proper positioning and movement of the scapula is critical for full and normal shoulder range of motion. We use the acronym SICK (Scapular malposition, Inferior medial border prominence, Coracoid pain and malposition, and dysKinesis of scapular movement) to refer to an injury resulting from overuse and fatigue of the muscles that stabilize and provide motion for the scapula.

A SICK scapula will result in Scapular Dyskinesis which is an alteration in the normal position or motion of the scapula during coupled scapulohumeral movements. It occurs in a large number of injuries involving the shoulder joint and often is caused by injuries that result in the inhibition or disorganization of activation patterns in scapular stabilizing muscles. It may increase the functional deficit associated with shoulder injury by altering the normal scapular role during coupled scapulohumeral motions. Scapular dyskinesis appears to be a nonspecific response to shoulder dysfunction because no specific pattern of dyskinesis is associated with a specific shoulder diagnosis. The majority of scapular dyskinesis cases are the result of loss of muscular coordination. The trapezius, rhomboid and serratus anterior muscles must be properly synchronized in their action for smooth scapular motion during arm movement.
**Risk factors**

- Intense, repetitive overhead activity (throwing, tennis, volleyball)
- Overuse fatigue
- Injury to other structures of the shoulder
- Direct trauma
- Muscle strain
- Tense pectoralis major possibly resulting from unbalanced weight training

**Signs and Symptoms**

- Affected shoulder appears dropped or lower than unaffected shoulder
- Medial (middle) scapular protrusion
- Noticeable hitches and jumps in scapular motion during arm movements
- Scapular pain
- Pain at the front, back, or top of the shoulder
- Pain on the outside of your upper arm

**Evaluation**

A thorough patient history and examination will be done to accurately assess the underlying causes of scapular dyskinesis. Primarily physical tests will be done to assess the nature of the injury. The altered motions fall into 3 clinically recognizable patterns of scapular dyskinesis. The first two types correlate to labral injury. Type I results in prominence of the inferior (lower) and medial edges of the bone. Type II is the prominence of just the medial border of the scapula. Finally, Type III is associated with shoulder impingement and rotator cuff injury and displays prominence of the superomedia (upper-middle) border of the scapula.

**Treatment Options**

Treatment of SICK Scapula is conservative physical therapy and focused on kinetic chain-based rehabilitation to regain normal muscular activation patterns. Physical therapy will begin immediately after evaluation with initial focus on improving pain-free range of motion. The next step is strengthening the local musculature. Once satisfactory range of motion and strength has been achieved you will proceed to proprioception exercises to regain muscular integration and coordination.