

# Tools of the Trade

# Case Study

Posture s Newest Ally

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The scapula is frequently involved, yet seldom symptomatically, in the majority of shoulder girdle conditions. With the shoulder relying on soft tissue control and coordination to provide stability, any deficiency in the required muscles performing their functions can alter the function of the shoulder. Proper coordinated co-activation of the shoulder musculature along with proper scapular positioning is necessary in order to minimize the mechanical stresses imposed on the articular and myofascial structures around the shoulder.

Dysfunction in the normal scapulothoracic rhythm is associated with many common shoulder injuries. Common alterations in the positioning of the scapula can include:

- Excessive protraction of the scapula during arm movements leading to anterior positioning of the head of the humerus.
- Superior displacement of the humerus within the joint leading to pinching of the space between the acromion and the humerus.
- The shoulder blade sitting too high on the back leading to the acromion being tilted anteriorly therefore increasing the likelihood of impingement.

The classical case of impingement syndrome includes a patient with a primary complaint of pain over the tip of the shoulder radiating over the upper lateral arm with movements involving horizontal abduction of the arm. With visual observation we can see that the patient has anteriorly rounded shoulders and protracted scapulae bilaterally. In providing training for this client to strengthen and rehabilitate the rotator cuff we must address the scapular positioning issue in order to reduce the mechanical strain imposed on the joints and muscles affected. If left unaltered, the poor positioning of the scapulae will continue to stress the adjacent structures in the kinetic chain which have had to compensate. This can result in accelerated wear and tear and eventually structural breakdown.

To address the issue of scapular positioning, we will apply a Postural Spider to the mid back of the patient. The Postural Spider is a kinesiology taping application which is pre-designed and ready to apply, belonging to the comprehensive line of SpiderTech applications. The application may be worn continuously for up to five days in which the client can exercise and shower. SpiderTech is an innovative functional medicine approach to modulate pain and myofascial dysfunction through the use of specialized pre-cut elastic tape applications. There are 3 possible variations for application, depending on the therapeutic objectives and the client's condition, including microcirculatory applications, neurosensory applications, and the one we will be demonstrating here, Structural applications.

Structural applications are designed to dynamically support better static and dynamic postural positions; provide relative immobility in order to prevent harmful ranges of motion without a hard end feel; and reduce strain on affected muscles and joints.

Structural applications involve applying the tape while it is stretched to the desired level of tension while the body part is held in a neutral position. This allows for the muscle and joint to move with more natural barriers to faulty postures and ranges of motion, which may be harmful. SpiderTech's Postural Spider application can address a concern most therapists have when addressing proper shoulder girdle posture, the ability to maintain proper positioning even when the client is not consciously aware of maintaining the ideal postures.

The improvement in posture and scapular stabilization allows for overhead arm elevations without the risk of impingement. Once the scapula is stabilized, the client can then condition the appropriate musculature to develop the proper strength and length/tension relationship of the muscles involved. Current evidence has shown that rehabilitation protocols that emphasize restoring normal functional stability and movement, along with proper biomechanics, have higher rates of successful outcomes.

Taking an integrative and comprehensive approach to shoulder conditions will provide enhanced training and therapeutic outcomes with the scapula playing a crucial role.

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