

More Core - The Serape Effect

A key concept to understand in regard to core function is the "Serape Effect."

This concept was articulated by Logan and McKinney in their book "Kinesiology" over fifty years ago. The serape is a Mexican garment that is draped loosely over the shoulders and is crossed in front of the body. The concept serves to reinforce the concept of the muscles of the core as a connector. They identified the serape muscles as the rhomboids, serratus anterior, external obliques and internal obliques. These muscles working together are called the "Serape Effect." Logan & McKinney state that: "The serape effect incorporates several major concepts which are vital to the understanding of movement. In ballistic actions such as throwing and kicking, the serape muscles add to the summation of internal forces. They also transfer internal force from a large body segment, the trunk, to relatively smaller body parts, the limbs. For example, the serape effect functions in throwing by summing, adding to, and transferring the internal forces generated in the lower limbs and pelvis to the throwing limb." (Logan & McKinney p.154)

The serape effect clearly makes the connection that in overhead activities there is a definite hip to shoulder relationship. According to Logan and McKinney using the example of a right handed thrower: "There is a definite interaction between the pelvic girdle on the left and the throwing limb on the right by way of concentric contraction of the left internal oblique, right external oblique, and serratus anterior on the right at the initiation of the throw. The pelvic girdle is rotating to the left and the rib cage is rotating to the right." (Logan & McKinney p 156) This movement paradigm is true in all overhead activities. It is a clear rationale for training the core in diagonal and rotational patterns in order to take full advantage of core function. What is amazing is that this was articulated over fifty years ago and there are still people who do not take advantage of this naturally occurring phenomenon. This has broad implications in performance enhancement as well as injury prevention and rehabilitation.