

SHOULDER PAIN

The shoulder is composed of all the structures that make up or cross the shoulder joints. The bones involved include the scapula, the lateral head of the clavicle, and the proximal head of the humerus. They are held together in their various articulations by ligaments, and are covered in succession by the synovial bursa and then the all-covering fibrous capsule. The muscles that cross the shoulder joint include the deltoids, coracobrachialis, latissimus dorsi, pectoralis major, infraspinatus, teres major and minor, subscapularis, and the medial head of the triceps. Those muscles whose tendons cross the shoulder joint include the supraspinatus and the two heads of the biceps brachii. Muscles that are commonly considered shoulder muscles, but simply attach to the scapula include the upper trapezius, middle trapezius, levator scapulae, and the serratus anterior. The other principle structures that cross the shoulder are the brachial artery, the brachial, cephalic and basilic veins, and the nerves formed from the brachial nerve plexus. Lymphatics also play a role in the shoulder structure, as do the layers of fat and dermis that covers all.

Shoulder pain results from injury or inflammation of any of the soft tissues associated with the shoulder, including the structures that line the joints (bursa and capsule), the muscles and tendons that cross the shoulder joint, and the ligaments that hold the shoulder joint together. Additionally, pain may be referred to the shoulder region from pressure exerted on cervical nerve roots, from various trigger point formations, from

interspinous ligamentous strain, and from various visceral organs.

Treatment

Treatment of the *shoulder pain syndrome* may be many-faceted and complicated by the many possible sources of pain. Whatever approach is taken must be based on a complete and thorough evaluation and the results scrupulously examined.

Trigger Points

The following trigger point formations may, singly or in combination, refer pain into the shoulder area: Posterior cervical group, Levator scapulae, Scalenus, Scalenus (minimus), Infraspinatus, Infraspinatus (abnormal), Medial teres major, Lateral teres major, Teres minor, Coracobrachialis, Lower splenius cervicis, Upper trapezius [B], Middle trapezius [A], Middle trapezius [B], Lower trapezius [A], Lower trapezius [B], Cervical multifidus (C4-C5), Supraspinatus (muscle), Supraspinatus (tendon), Latissimus dorsi (upper portion), Serratus posterior superior, Subclavius, Subscapularis, Posterior deltoid, Anterior deltoid, Pectoralis major, Pectoralis major (sternal portion), Pectoralis minor, Rhomboids, Triceps (long head), Biceps brachii, and Brachialis.