HIGH THORASIC BACK PAIN

The high thoracic back is composed of the structures on the posterior aspect of the trunk between the first and eighth thoracic vertebrae. They include the vertebrae themselves, the ribs they articulate with, the scapulae, the muscles that provide voluntary motion, the blood vessels and lymphatics that run through the area, and the nerves that supply innervation. The muscles in the high thoracic back area include the multifidus (T1 to T8), middle trapezius, rhomboid major and minor, teres major, teres minor, infraspinatus, posterior superior serratus, supraspinatus, deltoideus, subscapularis, and portions of the levator scapulae, splenius cervicis, serratus anterior, iliocostalis dorsi, longissimus dorsi, spinalis dorsi, latissimus dorsi, posterior deltoid, and lower trapezius muscles. Innervation is supplied to the muscles and sensory end organs in the area by spinal nerve roots (T2-T8). No major arteries or veins run through the area.

High thoracic back pain may result from soft tissue inflammation, swelling, and muscle strain or muscle spasm. It may be referred from various visceral organs, interspinous ligaments, peripheral nerve impingement, or trigger point formations (the most common). High thoracic back pain may also arise from pathological relationships between the vertebral bodies, intervertebral discs or costal articulations, and joint distortion from various diseases of the joint. Malformations of the spine that may lead to joint or muscular problems include scoliosis, unusual forms of kyphosis, or lordosis. Pain may be present in these conditions due to abnormal pressure exerted on intervertebral discs, calcific deposits encroaching on soft tissues, or a muscle imbalance between stabilizing antagonists as a result of structural anomalies or a lack of structural symmetry.

Treatment

Established treatable causes must be treated appropriately. Inflammation associated with peripheral nerve impingement and other para vertebral zones of inflammation associated with pathological relationships between the vertebral bodies, intervertebral discs or costal articulations have been shown to respond well to the modes of treatment described for other inflammatory conditions. This is especially true when used in combination with vertebral joint manipulation. Vertebral manipulation should only be performed by a trained practitioner (refer to Appendix, Spinal Manipulation).

Trigger Points

The following trigger point formations may, singly or in combination, refer pain into the *high thoracic* area: Posterior cervical group, Levator scapulae, Scalenus, Infraspinatus (abnormal), Medial teres major, Lateral teres major, Lower splenius cervicis, Upper trapezius [B], Middle trapezius [A], Middle trapezius [B], Middle trapezius [C], Lower trapezius [A], Lower trapezius [B], Cervical multifidus (C4-C5), Supraspinatus (muscle), Latissimus dorsi (upper portion), Serratus posterior superior, Serratus anterior, Subscapularis, Posterior deltoid, Pectoralis major (sternal portion), Rhomboids, Multifidus (T4-T5), Iliocostalis thoracis (T6), Iliocostalis thoracis (T11), and Upper rectus abdominis.