

Thoracic Outlet Syndrome

Post-traumatic thoracic outlet compression syndrome (TOS). Theisler CW. *Am J Chiro Med* Dec 90;3(4):141-151

From the abstract:

Thoracic outlet syndrome (TOS) results when the brachial plexus and/or subclavian artery are compressed by the muscles in the region of the first rib and artery. This compression syndrome is characterized by pain in the head, neck or upper extremities, paresthesia and/or vasomotor symptoms, non-operative, conservative care, which includes manipulation and extensive therapy, is the preferred choice of treatment.

Thoracic outlet syndrome: diagnosis and conservative management. Liebenson, CS *Journal of Manipulative and Physiological Therapeutics*, Vol. 11 No. 6, Dec 1988.

Thoracic outlet syndrome is caused by compression or irritation of the nerves as they exit the neck toward the upper extremity. Often it is the compression or irritation of the brachial plexus, not from compression of the subclavian artery.

In this discussion, the author notes some researchers who believe that the sacroiliac plays a large role in the etiology of this condition. Others feel an abnormal thoracic curve is the cause.

The T4 syndrome. De Franca GG, Levine LJ *Journal of Manipulative and Physiological Therapeutics*, Jan 1995, 18(1) p34-7

Two cases of the T4 syndrome are discussed. Symptoms include paresthesias, numbness, or upper extremity pains associated with or without headaches and upper back stiffness. In addition, no hard neurological signs are present.

Upper thoracic joint dysfunction, especially in the region of the T4 segment, appeared to be the major cause of the upper extremity symptoms and headaches. A nontraumatic onset is common and the peculiar glove-like distribution of hand or forearm pain can often lead to a mistaken diagnosis, including psychogenesis.

Joint manipulation, stretching, and strengthening exercises directed at the upper thoracic dysfunctional segments were used with good results.

The role of thoracic outlet syndrome in the double crush syndrome. Narakas AO.. *Annales de Chirurgie de la Main et du Membre Superieur*, 1990, 9(5): 331-40.

The numb arm and hand. Bracker MD, Ralph LP *American Family Physician* 51(1): 103-116, 1995.

Trauma and compression along the course of the median, ulnar or radial nerve from the brachial plexus to the fingers may cause pain, weakness, numbness or tingling in the upper extremity. Diabetes, smoking, alcohol consumption, rheumatoid arthritis and hypothyroidism are risk factors for nerve entrapment although these disorders typically produce bilateral symptoms.