

## *Thoracic Outlet Syndrome*

Thoracic outlet syndrome (TOS) results from a compression of the nerves that pass into the arms from the neck (brachial plexus). The corridor through the area between the neck and the armpit (thoracic outlet) is narrowed causing the compression. This compression causes pain in the shoulder, arm or hand or some combination of the three.



Slouching and dropping the shoulders is thought to be a common cause. This movement leads to tension in the muscles at the side of the neck and can constrict the nerves and arteries of the thoracic outlet. In many cases, no specific cause of TOS is found. An injury to the thoracic area may cause scar tissue to develop during the healing process. This scar tissue may lead to a compression of the nerves and blood vessels. Repetitive activities can also cause compression, especially activities that put the arms overhead.

The most common symptoms of TOS are: neck, shoulder, arm, and hand pain; poor circulation to the extremities; weakness, numbness, and fatigue in the arm and hand. The symptoms of TOS can appear to be other conditions, making it difficult to diagnose. Herniated disks in the neck, carpal tunnel syndrome, and bursitis of the shoulder all have similar symptoms.

Many cases of TOS are successfully treated by chiropractic care. Manipulation of the cervical spine as well as the upper ribs has proven beneficial in most cases. Myofascial release of involved musculature should also be incorporated. Instruction on proper posture and ergonomics cannot be overlooked in this condition. Nutritional supplementation can begin immediately to help reduce inflammation. Rehabilitation exercises focus on restoring proper posture and stabilizing the region.