

## IT'S NO FUN HAVING A PAIN IN THE NECK

Neck injuries are common, disabling, and costly. Approximately 54% of individuals have experienced neck pain within the last 6 months. Studies have shown that the incidence of neck pain may be increasing. The cost of neck injuries is high, with neck pain ranking second only to low back pain in worker's compensation costs in the United States. One study has shown that patients with neck pain made up approximately 25% of all patients in outpatient physical therapy clinics. Chronic neck injuries may have a history of trauma, or as a result of stress, poor posture or static or repetitive movements.

Research has found that isolated treatments, such as exercise, manual therapy or modalities are not more effective than sham treatments. However, a combination of these interventions, combined with postural and ergonomic correction has proven to be most efficacious for long-term results. Also, treating the entire kinetic chain is important, especially in the case of athletes. For example, if a tennis player has decreased mobility in the lumbar or thoracic regions, or poor scapular control, this could increase mechanical stress to the neck during serves or overhead shots.

Physical therapy can be effective in all three stages of an injury--the acute, sub-acute, and the final strengthening or recovery stage. During the acute stage, the emphasis is on maximal protection of the injury and the use of modalities and gentle manual techniques to decrease pain and inflammation. Patients are instructed in proper body mechanics and ergonomics to protect the injury. In the sub-acute stage, the emphasis is on restoring the range of motion, in

addition to improving posture through cervical and scapular stabilization exercises. The strengthening or recovery stage is used to restore motion and strength, with a gradual return to normal activities, whether at work or recreation activities. Particular emphasis is on patient responsibility through active participation.

Patients with chronic neck pain demonstrate altered patterns of muscle activation while performing tasks with their upper limbs. The activity of the accessory muscles, which include the sternocleidomastoid, upper trapezius, and anterior scalenes, is increased and the deep flexor muscles have a decreased activity level as compared to people without neck pain. The deep cervical flexors may be inhibited secondary to pain from the injury, and the motor control pattern of the accessory muscles may be altered to compensate for the painful muscles. This combination decreases the ability to stabilize the neck. One of the goals of physical therapy is to design a specific exercise program, which will restore normal control of the cer-

vico-thoracic structures and upper extremities.

Treating cervical pain and dysfunction can be a delicate and complex process. The brainstem hangs down to the level of C1 and all neural structures, which control the body's function pass through the neck. The temporomandibular joint may also contribute to intractable neck pain. A variety of symptoms, including dizziness, headaches and visceral pain can be a result of cervical dysfunction. A thorough understanding of the functions of the anatomy of the neck and head and the neuroanatomy is essential to the safe and effective treatment of the neck.

At OPTM, we are specialists in providing evidenced based therapeutic interventions and are specialty trained in manual therapy, exercise and ergonomics. We assess the entire kinetic chain to find contributing factors to cervical pain. We empower the people to care for themselves by providing them with a complete education program for independent care of their neck.

