

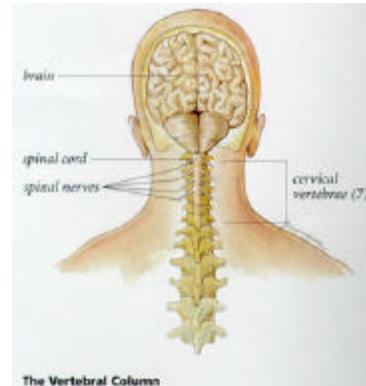
NEWSLETTER
JUNE/JULY 2004

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A Pain in the NECK

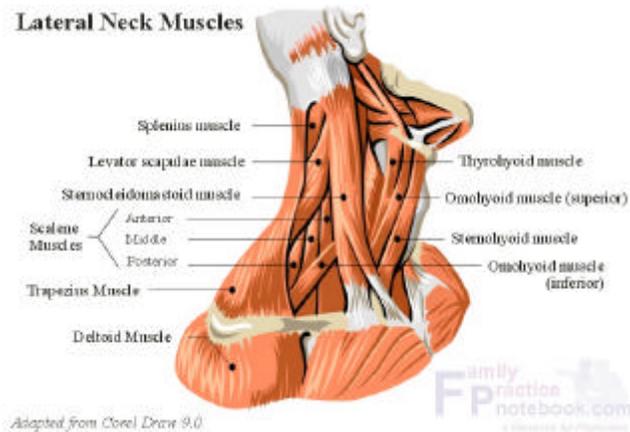
We've all had one at some time or other. Some of us have even been accused of being one. A "pain in the neck" is so unpleasant it is used as an invective for anything or anyone annoying. There are many physical reasons why the neck is such a sensitive region and why damage to the neck can cause serious problems, especially if not treated.

The *neck* is a generic term for the column of bone, nerves and tissue that begins at the top of the thorax and extends to the base of the skull. This structure contains the carotid and vertebral arteries, the spinal cord and all anterior and posterior nerve roots, and, at its topmost point, houses the brain stem. Known as the *cervical spine*, the seven vertebrae of the neck comprise the most complicated joint system in the body. There are 37 separate joints in the relatively small area of the cervical spine, allowing all movements of the head in relation to the body: tilting, rotation, and any slight adjustment in attitude of the head is accomplished through the highly mobile neck. The sense organs are all subservient to the nerves located in the cervical spine as they relay messages to the brain. The cervical spine nerves control the scalp, base of skull, neck muscles, shoulders, elbows, arms and forearms, wrists, hands and fingers, heart, coronary arteries, chest and muscles related to breathing such as the diaphragm. The vascular supply to the brain is tunneled through the neck as well. This is why a broken neck is so dire: any disruption of the nerves can lead to paralysis and complete bodily loss of control and sensation, while a disruption of the flow of oxygenated blood to the brain leads to stroke and even death if the flow is not restored quickly.



The neck moves over 600 times an hour, even during sleep: no other part of the musculoskeletal system is in such constant motion. Because the cervical spine is almost never still it is dangerous to immobilize it, even partially. Prolonged immobilization, such as in a cervical collar, results in stiffness, pain and limited motion. Thus the less able you are to move your neck, the less able you will be in the future. Because the damage to the neck is furthered with complete immobilization, most treatments for severe neck injuries still allow for small movements to keep the cervical spine at least somewhat active.

Anyone who drives, bikes, or even walks across a busy intersection knows how important the neck's range of motion is. Anyone who has been unable to turn the neck due to pain understands why the phrase is "pain in the neck" instead of "pain in the elbow." Nothing is quite as inconvenient as a stiff, sore neck. Cervical misalignments can lead to a host of ailments: headaches including migraines; stiff neck; dizziness; cough; croup; fatigue; pain in the upper arm; tennis elbow; vision, hearing and sinus problems; wrist, hand and finger numbness or pain; shortness of breath; chest pain, and other maladies which often seem to have nothing to do with the neck. Nerve impingement in the cervical spine can result in a wide variety of symptoms throughout the body: blurred vision and other eye problems may be caused by irritation of the cervical sympathetic nerve supply to the eye structures, while changes in equilibrium can be due to impingement on the vertebral arteries or as a result of vascular insufficiency. A lesion on the cervical spine can affect the diaphragm and other respiratory muscles, making breathing labored. Nausea and vomiting may be caused by cervical cord compression. Even heart problems and loss of *proprioception* (the ability to sense the position, location, orientation and movement of the body and its parts) can be the result of damage to the nerves or vertebrae of the neck. Each vertebra is separated from its neighbor by a gel-filled disc that operates as a shock absorber. A bulging or herniated cervical disc results in spinal nerve inflammation and swelling. The soft tissue is at risk as well. The neck is supported by a wealth of muscles that can be injured, pulled and bruised. Muscles, ligaments, tendons and other connective tissue affect the position of every vertebra. Without x-rays or MRIs, finger pressure on tender points next to both sides of the spine can give a clue as to the specific vertebra involved in injury.



If you suspect that someone has a neck injury, immediately contact emergency medical services. Do not move the person yourself, no matter how uncomfortable he or she looks. Emergency medical technicians are trained in the proper treatment of people who have neck injuries. If you move a person who has a cervical spine fracture, you risk further injuring that person.

A common cause of neck damage is cervical acceleration-deceleration (CAD) injury, more commonly called *whiplash*. Usually experienced in a motor vehicle accident, whiplash is injury done to the cervical spine caused by an abrupt jerking motion of the head, either backwards or forwards, as with a sudden collision. Compression fractures occur when the neck is pressed into the shoulder area. Diving headfirst into a too-shallow pool or "spear tackling" in football can cause such an injury. Less traumatic causes of neck pain involve everyday activities: sleeping without the proper neck support, such as a cervical pillow, can lead to pain and stiffness. Jobs that require craning the neck either up or down – or throwing the head back for prolonged viewing of fireworks -- can cause chronic neck pain. Tilting the neck to one side or another to cradle a phone receiver between the shoulder and ear can lead to a "crick" in the neck. Even bifocal glasses can cause neck soreness, as they usually require the wearer to flex the lower cervical spine when reading. Physical characteristics

such as a high, arched *palate* (the bony and muscular partition between the oral and nasal cavities), receding jawbone, and abnormalities of the *temporomandibular joint* located between the head of the lower jawbone and the temporal bone (also known as *TMJ*) can contribute to cervical spine syndromes.

Many neck problems can be avoided or alleviated. It is important to exercise the neck on a regular basis. Performing the “Turtle Exercise” ten times daily will help neck flexibility and health. Slowly inhale as you look up and extend your chest to the fullest, then exhale slowly as you look down and close your chest, with the upper body curled as in the fetal position. Simple range-of-motion exercises are also helpful. Tilting the head to the front and back, leaning it side-to-side, and rotating it both left and right helps to promote and maintain a good range of neck motion. While these exercises should never be forced, it is important to turn or tilt the head far enough to feel a good stretch in the muscles of the neck. The more regularly these exercises are done, the more relaxed and limber your neck will be. Using a headset for hands-free phone conversations is beneficial, as is investing in a pillow that provides support for the neck. And, while bifocals may be convenient for very short spells of reading, a separate pair of reading glasses can lessen stress on the cervical spine.

The majority of acupuncture meridians go through the neck region: therefore, any stress response may tighten up the neck and affect overall health. The neck and head are also often exposed to the elements without cover. A cold, damp draft from an open window can trigger neck spasm and pain. Moxibustion (heat), heat massage, acupuncture and circulation herbs are primary approaches to treating chronic neck injuries.

Maintaining good posture is also important to neck health. When aiming for good posture, think of the U.S. Marines, keeping head and shoulders slightly back. When sitting at a computer, remember to keep your chin up and try not to lean forward. If possible, place the monitor high enough to encourage you to look slightly up at it. If you are seated and looking straight ahead, your eyes should line up with the middle of the computer screen. This way the eyes can do the work of scanning up or down the screen without any tilting of the head. The human head weighs 10 – 12 lbs. Prolonged forward tilting of the head forces the trapezius muscles to support the weight and can lead to neck pain and damage. Activities such as reading newspapers or books can also contribute to neck pain if the head is at a forward angle. Therefore try as often as possible to find a position in which reading is comfortable and the neck is not flexed.

Many herbs offer comfort for neck pain. Chinese herbal formula *Te Xiao Jing Zhui Tong Wan* combines many of these herbs, including **Ginseng** for strength and the immune system, **Polygoni Multiflori** for circulation, **Gastrodiae** for stress response, **Puerariae** for dilation of blood vessels and clearing inflammation, **Curcumae Longae** for regulating the GB (gallbladder) meridian and digestive system, **Astragali** for dilating blood vessels, promoting liver function and eliminating water retention, **Boswelliae** and **Commiphorae** for circulation, **Drynariae** and **Semen Cuscutae** for tissue repair and kidney function, and **Angelica**, **Chuanxiong** and **Notopterygii** for anti-inflammatory properties.

