

Cervicogenic Headaches

Overview: A headache is the most common pain complaint in our society. Tens of millions of people suffer from headaches every year. Chronic headaches can be divided into three categories:

1. Migraine Headaches - are believed to originate in the blood vessels that supply the head.
2. Muscle Tension Headaches - are caused from chronic contraction of the head muscles.
3. Cervicogenic Headaches - are usually due to arthritis of the spine. The arthritis originates in the small joints of the neck or upper (cervical) spine called the cervical facet joints. This type of Headache is usually seen in older patients who suffer from arthritis, but may also be present in patients who have suffered neck trauma such as whiplash.

Arthritis is a deterioration of the joint caused by low-grade inflammation. This inflammation can spread to the nerves of the neck. The occipital nerves are formed in the upper levels of the neck and ascend to the back of the head where they provide sensation. When the joints of the neck are inflamed, it spreads to the occipital nerves and the pain is experienced in the back of the head.

Diagnosis: Patients with cervicogenic headaches will have pain in the back of the head, although some patients will also experience the pain behind the eyeballs. Usually there is a history of trauma and X-rays of the neck may reveal the presence of arthritis. When the doctor examines the patient, he or she may discover the neck muscles are tender and in spasm. The only way to absolutely document the presence of cervicogenic headaches is with a diagnostic injection of the joints under X-ray. During this procedure, a specialist in joint injections can put an anti-inflammatory drug into the joint, causing reduction in the inflammation. If the headache disappears after this procedure, the doctor can be relatively certain the headache is coming from the neck, and thus diagnosed as a cervicogenic headache.

Treatment: In the event of acute flare-ups, cervicogenic headaches can be treated with a combination of ice application to the neck, oral anti-inflammatory drugs such as aspirin or Motrin, and immobilization of the neck with a neck brace or soft collar. In most cases the headache will resolve with this treatment in relatively short time. If the headache fails to improve, the patient can be prescribed physical therapy. The physical therapist will apply ice, mobilize the soft tissue and also apply gentle traction to the head and neck to relieve the pressure on the joints. If this strategy fails to improve the patient, injections of the joints with anti-inflammatory drugs can be done. These injections are the same injections that are given for diagnosis, except they may be given as a short series of two to three injections over a period of months and can lead to long term relief.

Cervicogenic Headaches *(continued)*

Prevention: If you suffer from cervicogenic headaches, it is very important to sleep with your head in a neutral position. Use a relatively firm, non-feather pillow that keeps your neck in good alignment with the rest of your spine when you sleep on your side. If you sleep on your back, use a relatively narrow pillow so that your head is not thrust too far forward. If you pay careful attention to your sleep posture, avoid sudden neck movements and take appropriate prescribed anti-inflammatory medications, most cervicogenic headaches can be prevented or controlled.

Cervicogenic Headaches (*continued*)

Overview: The vertebral column is a series of 24 bones, muscles and ligaments that protect the nerves of spinal cord. Each bone is called a vertebra. The vertebra is about the size of a child's toy block, only round. Behind this body of the vertebra is the spinal cord followed by a roof of bone called the lamina. The vertebral body and lamina surround and protect the spinal cord from injury (see diagram). As we age, our bones lose calcium and are more prone to fracture. This process of calcium loss is called osteoporosis and is very common in older women. In the presence of osteoporosis, the vertebral bodies can break and collapse, a process known as a compression fracture. Compression fractures most commonly take place in the mid and low back because the weight of the body is carried there. The fracture can be a source of severe pain because the bone is broken and the nerves next to the spinal cord are pinched.

Diagnosis: Patients with compression fractures complain of sudden onsets of mid and low back pain. The pain may be experienced along the course of the nerves next to the compression fracture. If the vertebrae of the lumbar spine are involved, the patient may experience leg pain. In the mid back or thoracic region, the pain may radiate to the front underneath the breast. If the doctor suspects a compression fracture, X-rays of the spine will be ordered. Compression fractures are usually readily apparent on a standard X-ray.

Treatment: The initial treatment for compression fractures is bed rest and pain medications. This gives the fracture time to heal, unfortunately however, the bone will heal in the collapsed position. Once the bone heals, it stops hurting but the nerves remain pinched, causing chronic pain. If chronic pain develops, the patient may need moderate doses of appropriate narcotic medications such as Tylenol #3, Darvocet or Vicodin. Excessive use of these drugs must be avoided because of the long-term toxic effects to the kidneys or liver. If, despite the use of appropriate medications, the patient is still experiencing significant discomfort, nerve block techniques may be able to resolve the pain. Traditionally, epidural injections are given. With this technique, powerful anti-inflammatory drugs are injected along side the nerves where they are pinched. This helps relieve swelling and inflammation, thereby resulting in pain relief. Nerve block techniques have to be used cautiously because the medication is an anti-inflammatory steroid, cortisone-type drug. Long-term use of cortisone can actually lead to osteoporosis and cause more compression fractures. The injections are usually given as a series of two or three over a period of weeks. In the event of a compression fracture, no more than two or three series should be given in the course of any one year. In addition to injections, braces can be used to help stabilize the joints. Although this may prevent further fractures, it cannot alleviate the compression of the old fracture. Compression fractures are a serious problem that can be difficult to treat. Ultimately, patients will need a combination of injections, medications and bracing to achieve a significant level of comfort.