

Cervical Radiculopathy

Pain in the neck that radiates to the shoulder and often down the entire arm may be caused by a pinched nerve in the neck. This is known as cervical radiculopathy. The spine is comprised of a column of bones called vertebrae and within the vertebrae lies the spinal cord (**Figure 1**). In the neck or cervical spine, nerves leave the spinal cord through openings in the vertebrae and run down the arm, providing sensation and motor function to the arms. Pressure on the nerves as they exit the vertebrae can be caused by a variety of things, such as a herniated disc or arthritis in the neck (**Figure 2**). Pressure on the nerves can lead to pain, weakness and loss of sensation in the arm. Sometimes, even though the problem is in the neck, there is no neck pain associated with a cervical radiculopathy.

Causes

Anyone can get a cervical radiculopathy. As we age, the discs between our vertebrae lose water content and become narrowed. The bones in the spine then move closer together, leading to bone spurs that can pinch a nerve. Disc injuries can also happen from an injury, such as an injury resulting from lifting a heavy object. Even minor injuries can sometimes injure a disc. Poor lifting techniques can cause injury even if the load is not heavy. It is important to note that even though degenerative changes occur in the neck as we age, aging itself does not usually lead to a cervical radiculopathy.

Diagnosis

Many patients come to or are referred to a hand specialist since the pain is mostly in the arm. A careful history and examination by the doctor will usually help make the diagnosis. Weakness and/or loss of muscles supplied by a particular nerve may be found. Reflex changes in the arm may also result from pressure on certain specific nerves in the neck. Numbness in particular areas of the arm helps with making a correct diagnosis.

An x-ray can show if there is any arthritis in the neck, but an x-ray is not helpful in determining if there are any pinched nerves. An MRI is the best test to evaluate the nerves and soft tissues such as disc material in the neck. Sometimes special nerve studies are ordered to help evaluate the nerves in the arm. A pinched nerve in the neck can also happen at the same time as a pinched nerve further down the arm, such as carpal tunnel syndrome. In rare cases it is associated with bowel and bladder problems and severe weakness in the arms and legs and, in these cases, immediate medical attention is required.

Treatment

Usually the condition improves on its own in 6 to 8 weeks regardless of treatment. In the early stages, rest, anti-inflammatory medication and physical therapy can be helpful in improving symptoms. In overweight patients, weight loss with a healthy diet and regular exercise can help improve symptoms. While most people recover, others may need more invasive treatments such as a steroid injection or even surgery to remove the pressure on the nerve. A consultation with a spine specialist at this point would be needed.

Figure 1: Cervical Spine

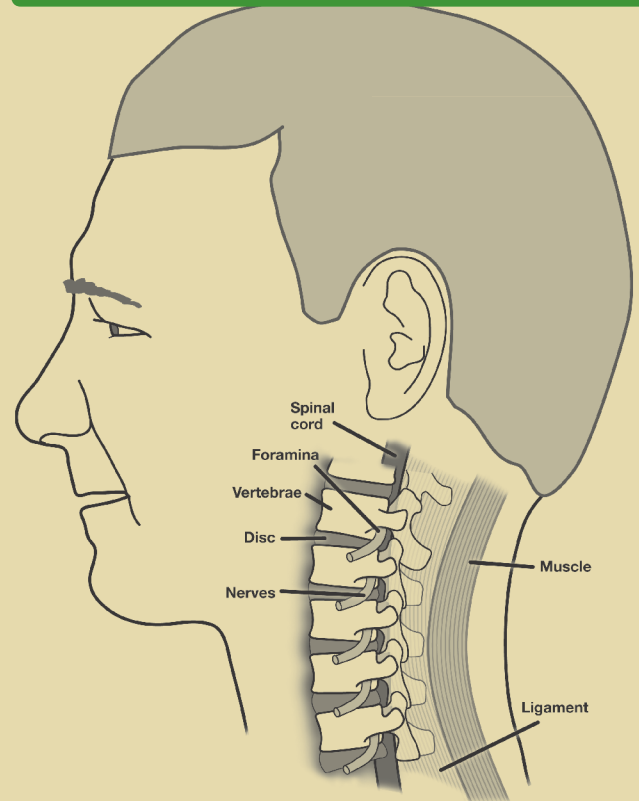


Figure 2: Causes of nerve compression

