

CERVICAL RADICULOPATHY

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What is it?

Cervical radiculopathy is the medical term used for what is more commonly known as a “pinched nerve,” in this case, at the neck. These nerves stem from a much larger bundle of nerves known as the spinal cord. The spinal cord is the main source of communication from the brain to the body and vice versa. As the spinal cord goes down the spinal canal, it branches off at each spinal segment (both right and left) to connect with different muscles in order to move our bodies, and parts of the skin, so that we have the sensation of touch. The cervical nerves come from the neck, and they provide sensation and movement to the head, neck and arms. As these nerves branch off at each level, there are many structures that may “pinch” this nerve root, leading to symptoms down the pathway of that specific nerve. Common causes of pinched nerves are a herniated disc, thickened ligament, or a bony overgrowth, also known as a bone spur, near or in the spine.

Symptoms

Generally, patients will complain of a sharp neck pain that radiates into the arm. This can cause weakness or a feeling of “pins and needles” in certain areas of the arm. At times, these symptoms can change with movement of the neck and arm, or simply coughing or sneezing. Immediate attention is required if symptoms develop in both arms simultaneously, as this may be a sign of a more serious neurologic disorder or spinal cord injury.

Sports Medicine Evaluation/Treatment

A sports medicine evaluation will include a thorough history of the event/events that led to the injury, followed by a neurologic and musculoskeletal physical examination. This will include motion, strength, sensation and reflex testing of the arms and neck. Additionally, specific testing movements will be completed to recreate and reduce symptoms. This information will determine what further testing should be completed. These tests can include X-rays (to evaluate the bones in the spine), a computed tomography (CT) scan (for a more detailed view of the bones), magnetic resonance imaging (MRI) for a more specific evaluation of the nerves, discs, muscles, etc., and an electromyogram (EMG) to give important information about the functionality of the nerve-muscle connections.





There are many treatment options available for cervical radiculopathy. These options include: medications, rehabilitation, epidural steroid injections (injections targeting the nerves where they leave the spinal cord in the neck), or surgery. Most of the time, cervical radiculopathy can be handled more conservatively without surgery. These options should be discussed with the healthcare provider and an individualized plan can be created.

Injury Prevention

Proper technique and training prior to competition is extremely important. This should include a balanced stretching and strengthening program to address any weakness in the neck or poor posture, which may predispose the athlete to injury. Additionally, during collision and contact sports, utilizing proper tackling technique and protective equipment will also aid in reducing injury.

Return to Play

As long as the neck is inherently stable (meaning there is no fracture or dislocation of the vertebrae), the athlete may return to play as soon as there is full painless movement and full strength in the neck and arms.

CT: Computed tomography; MRI: Magnetic resonance imaging; EMG: Electromyography

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References

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