

Pain in the neck

By Katharine Leppard MD, PT

The old cliché “a pain in the neck” sounds funny; however, for people suffering neck pain, it is anything but funny.

Neck pain can originate from a number of different sources, and sometimes it is a combination of issues.

The cervical discs are the shock absorber pads between the bones in the neck.

Discs are built like a jelly donut with a tough outer wall (annulus) and a jelly center (nucleus). The discs can bulge, when the outer wall is weakened but still intact.

The discs can rupture (the same thing as herniated disc), when the outer wall tears and the jelly center is extruded. The outer wall can tear, called an annular tear.

As we age the jelly center of the discs (the nucleus) dry out, the discs become thinner and can develop bone spurs; this is called degenerative disc disease.

The joints in the neck where movement occurs are called the

facet joints. These joints can develop arthritis, and can be injured in falls or other trauma. The muscles in the neck have the big job of holding up our head. People can develop muscle tension, knots, spasms and pain called myofascial pain. Bone spurs or disc protrusions can pinch nerves in the neck; this is called a cervical radiculopathy. The spinal cord in the center of the spine can become compressed.

Determining the exact cause of neck pain can be difficult, even with MRI scans. It is important to consider any other contributing factors such as pinched nerves in the arms at the wrist and elbow, and shoulder joint issues when evaluating neck pain. When people live with a level of neck pain for years, and then develop numbness in an arm, the first thought that comes to mind is that the neck problems have worsened and they have developed a pinched nerve in the neck. This often prompts a MRI scan of the neck that shows bulging discs and bone spurs. The problem is that all of us have those degenerative changes typically after the age of 40. Degenerative changes can be pain free, and determining if those changes are the cause of the problem is very important. Pinched nerves in the arm such as the median nerve at the wrist, and the ulnar nerve at the elbow are very common nerve conditions that become more common as we age.

Electromyography (EMG) testing is imperative for an accurate diagnosis of nerve issues, especially before any invasive treatment options such as a cervical epidural injection or surgery are preformed. There are two parts to an EMG test. The first are the nerve conduction studies that test how well each nerve carries an electrical signal. The second part of the test involves putting a small pin with a microphone on the tip into strategic muscles fed by different nerves to see if any electrical changes have occurred.

Shoulder joint and rotator cuff injuries can radiate pain to the neck. In motor vehicle accidents, it is not only possible to have a whiplash injury to the neck, the rotator cuff can also be injured. Again, proper diagnosis gives the best chance for proper treatment.

Treatment for neck pain falls into four main categories:

1. Hands-on work such as physical therapy, adjustments and massage. This also includes treatment such as heat, ice, ultrasound, electric stimulation, and traction (decompression). Traction can help reduce pressure on a pinched nerve or an inflamed facet joint, it does not make disc protrusions smaller, or rehydrate a degenerative disc.
 2. Injections – there are a variety. The most basic are trigger point injections done in conjunction with massage to address myofascial pain (painful muscle spasms). These typically do not involve steroids. A trigger point injection involves injecting a local anesthetic into severe locations of painful muscle spasms to temporarily knock out the spasm, followed immediately by massage. This is done once a week for up to six weeks. The goal is to block the spasm causing pain, and stop the pain cycle, with the hope that the muscles tension will relax. If two sessions fail, these are discontinued. If they're helping, the trigger
 3. Medications. Sadly, there is no perfect pill, and all medications have potential side effects. It is best to discuss these options in more detail with your physician.
 4. Surgery. Reserved for severe pathology such as spinal cord or nerve compression, and even surgery does not guarantee elimination of neck pain.
- All the treatment options discussed above have their limitations, and there

point injections are done for up to six sessions. Cervical epidural injections are steroid (cortisone) injections into the spinal canal under x-ray and help to calm the inflammation from a disc injury or a pinched nerve. There are a number of injection options for facet joint pain, including steroid injections into the joints under x-ray, or burning the nerves to the facet joints to block facet joint pain; this is called a rhizotomy. Rhizotomy typically lasts for six months. The nerves then regenerate, often requiring this procedure to be repeated. The nerves to the discs are too complex to block by this type of procedure.

are plenty of people who try everything and have ongoing trouble with chronic neck pain. It is very important to protect and care for our neck. Poor desk set ups that have the neck always turned to one side need to be corrected. It is not a good idea to fall asleep on the couch with your neck on the side arm rest. Staying in one position for an extended period can cause neck pain. Our bodies are pretty good at telling us when something hurts, and as the medical options are limited, we do need to listen to our bodies.

As in all medical conditions, proper treatment first depends on accurate diagnosis. Any type of nerve symptoms including pain radiating from the neck into the arm, numbness or weakness needs evaluation. A pain in the neck is not always something that must be lived with.

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