

## **Cervical herniated disc symptoms and treatment options**

### **Cervical herniated disc introduction**

Arm pain from a cervical herniated disc is one of the more common cervical spine conditions treated by spine specialists. It usually develops in the 30 - 50 year old age group. Although a cervical herniated disc may originate from some sort of trauma or injury to the cervical spine, the symptoms, including arm pain, commonly start spontaneously.

The arm pain from a cervical herniated disc results because the herniated disc material “pinches” or presses on a cervical nerve, causing pain to radiate along the nerve pathway down the arm. Along with the arm pain, numbness and tingling can be present down the arm and into the fingertips. Muscle weakness may also be present due to a cervical herniated disc.

The two most common levels in the cervical spine to herniate are the C5 - C6 level (cervical 5 and cervical 6) and the C6 -C7 level. The next most common is the C4 - C5 level, and rarely the C7 - T1 level may herniate.

The nerve that is affected by the cervical disc herniation is the one exiting the spine at that level, so at the C5-C6 level it is the C6 nerve root that is affected.

### **Symptoms of a cervical herniated disc**

A cervical herniated disc will typically cause pain patterns and neurological deficits as follows:

- **C4 - C5** (C5 nerve root) - Can cause weakness in the deltoid muscle in the upper arm. Does not usually cause numbness or tingling. Can cause shoulder pain.
- **C5 - C6** (C6 nerve root) - Can cause weakness in the biceps (muscles in the front of the upper arms) and wrist extensor muscles. Numbness and tingling along with pain can radiate to the thumb side of the hand. This is one of the most common levels for a cervical disc herniation to occur.
- **C6 - C7** (C7 nerve root) - Can cause weakness in the triceps (muscles in the back of the upper arm and extending to the forearm) and the finger extensor muscles. Numbness and tingling along with pain can radiate down the triceps and into the middle finger. This is also one of the most common levels for a cervical disc herniation.
- **C7 - T1** (C8 nerve root) - Can cause weakness with handgrip. Numbness and tingling and pain can radiate down the arm to the little finger side of hand.

It is important to note that the above list comprises typical pain patterns associated with a cervical disc herniation, but they are not absolute. Some people are simply wired up differently than others, and therefore their arm pain and other symptoms will be different.

Since there is not a lot of disc material between the vertebral bodies in the cervical spine, the discs are usually not very large. However, the space available for the nerves is also

not that great, which means that even a small cervical disc herniation may impinge on the nerve and cause significant pain. The arm pain is usually most severe as the nerve first becomes pinched.

### **Treatments for a cervical herniated disc**

The majority of the time, the arm pain from a cervical herniated disc can be controlled with medication, and conservative (non-surgical) treatments alone are enough to resolve the condition.

Once the arm pain does start to improve it is unlikely to return, although it may take longer for the weakness and numbness/tingling to improve. If the arm pain gets better it is acceptable to continue with conservative treatment, as there really is no literature that supports the theory that surgery for cervical disc herniation helps the nerve root heal quicker.

All treatments for a cervical herniated disc are essentially designed to help resolve the arm pain, and usually the weakness and numbness/tingling will resolve with time.

### **First line of treatment for a cervical herniated disc**

When the initial pain from a cervical herniated disc hits, anti-inflammatory medications such as ibuprofen (e.g. Advil, Nuprin, Motrin) or COX-2 inhibitors (e.g. Celebrex) can help reduce the pain.

The pain caused by a cervical herniated disc is caused by a combination of: 1) pinching of the nerve root, and; 2) inflammation associated with the disc material itself. Therefore, taking anti-inflammatory medications to remove some of the inflammation can reduce this component of the pain while the pressure component (pinching of the nerve root) resolves.

For patients with severe pain from a herniated disc, oral steroids (such as Predisone or a Medrol Dose Pak) may give even better pain relief. However, these medications can only be used for a short period of time (one week).

### **Additional conservative treatment options for a cervical herniated disc**

In addition to anti-inflammatory medications, there are a number of non-surgical treatment options that can help alleviate the pain from a cervical herniated disk, such as:

- **Physical therapy and exercise.** Just as in the lumbar spine, Mckenzie exercises can be used to help reduce the pain in the arm. In the initial period a physical therapist may also opt to use modalities, such as heat/ice or ultrasound, to help reduce muscle spasm.
- **Cervical traction.** Traction on the head can help reduce pressure over the nerve root. It does not work for everyone but is easy to do, and if effective the patient can use a home traction device for pain from a cervical herniated disc.

- **Chiropractic manipulation.** Gentle manipulation can help reduce the joint dysfunction that may be an added component of the pain. High velocity manipulations should be avoided as they can make the pain worse, or worsen any neurological damage.
- **Osteopathic medicine.** Osteopathic manipulation and special techniques to restore normal joint motion can be helpful in reducing pain from a cervical herniated disc.
- **Activity modification.** Some types of activities may tend to exacerbate the herniated disc pain and it is reasonable to avoid these activities to keep from irritating the nerve root. Such activities may include heavy lifting (over 50 pounds), activities that can cause increased vibration and compression to the cervical spine (boating, snowmobile riding, running, etc.), and overhead activities that require prolonged neck extension and/or rotation.
- **Bracing.** In some instances a cervical collar or brace may be recommended to help provide some rest for the cervical spine.
- **Medications.** In addition to the anti-inflammatory medications mentioned above, narcotic agents (pain killers) might be used on a temporary basis to help reduce the pain and discomfort from a cervical herniated disc. Also, muscle relaxants or certain anti-depressants may help reduce the nerve-type pain (neuropathic pain) and help restore normal sleep patterns.
- **Injections.** Epidural steroid injections or selective nerve root blocks can be helpful to reduce inflammation in cases of severe pain from a cervical herniated disc, and can be very effective if accompanied by a comprehensive rehabilitation program that may involve a number of the above conservative treatments.