

Herniated Cervical Disc

Ashvin Patel M.D. FAAOS

1. What is a Cervical Disc?

Cervical refers to the first seven vertebral bodies of the spine. A disc is located between the vertebral bodies and functions as a “shock absorber” and aids in the mobility of the spine. A disc is primarily composed of water with a gel like center called the “nucleus” and a fibrous outer layer called the “annulus”. Behind the discs and vertebral bodies lie the spinal canal and the spinal cord.

2. What is a Disc Herniation?

A disc herniation occurs when the central portion of the disc migrates backward towards the spinal canal and the nerves. Other terms often used to describe a herniated disc are ruptured disc or slipped disc.

3. What is Radiculopathy?

Radiculopathy is a term that refers to radiating or shooting pain down the arm or leg. In the case of the cervical spine, radiculopathy is the radiating pain down the arm.

4. Why does a disc herniate?

A weakened or torn outer area of the disc can result in the herniation of the gel like nucleus. In most cases, the exact cause is unknown. The most common reason for a herniated disc is thought to be from degenerative changes within the disc that are commonly associated with aging. Disc herniations are more common in smokers and those who perform repetitive vibratory activities such as truck driving.

5. What are the common symptoms and signs of a disc herniation?

The symptoms may occur suddenly or gradually and depend upon the exact location and the severity of the herniation. Pain traveling from the neck extending down through the shoulder blade and the arm is the most common feature. The pain may be a dull ache or a sharp stabbing sensation. Numbness and tingling may also be present. The symptoms are often made better or worse with certain positions. Weakness of the affected muscle groups may be present and may make using the arm more difficult.

6. How is a disc herniation treated?

Initial treatment consists of rest, physical therapy, anti-inflammatories and pain medications. Most patients improve with these measures. If the symptoms continue or worsen then surgical removal of the disc herniation is recommended.

7. When is surgical treatment recommended?

Surgery is recommended when non-surgical interventions fail to show significant improvement within four to six weeks. If the symptoms are severe or progressive weakness is present, surgery may be recommended sooner.

8. What is done during surgery?

The goal of surgery is to remove the portion of the disc that is compressing the nerve root. The most common procedure is called a anterior cervical discectomy and fusion. An incision is made in the front of the neck. The disc is then removed which allows the pressure to be taken off the nerve. The disc space in between the vertebral bodies is then filled with a shaped piece of donor bone. Once the bone has is fitted, a small titanium plate is placed over the bone graft and attached to the vertebral bodies above and below the disc space. During the surgery, an operating microscope is usually used for better visualization of the spinal cord and nerves. The incision is small and there is very little bleeding.

9. What are the results of surgery?

If the distribution of the arm pain or symptoms match the nerve root compression seen on the MRI scan then the relief of symptoms after surgery is greater than 90%. It is important to recognize that weakness due to a disc herniation does not consistently resolve after surgery. Pain is the most reliable symptom to resolve.

10. What are the potential complications of surgery?

The complication rate for a cervical discectomy and fusion is low. The surgery does not destabilize the spine and patients usually go home the day after the surgery. Risks of surgery include:

- Wound infection.
- Reaction to anesthesia medications.
- Injury to the nerve or spinal cord
- Injury to the carotid or vertebral artery
- Hoarseness and swallowing difficulty, which usually resolves quickly.
- Incomplete healing of the bone graft (pseudoarthrosis, or lack of bony fusion).

The surgical procedure is quite safe and the above complications are rare.

11. What can be expected after the symptoms of a disc herniation resolve?

Most patients resume normal activities with in 2-3 weeks. A cervical collar is usually worn for up to 4-6 weeks after the surgery.