



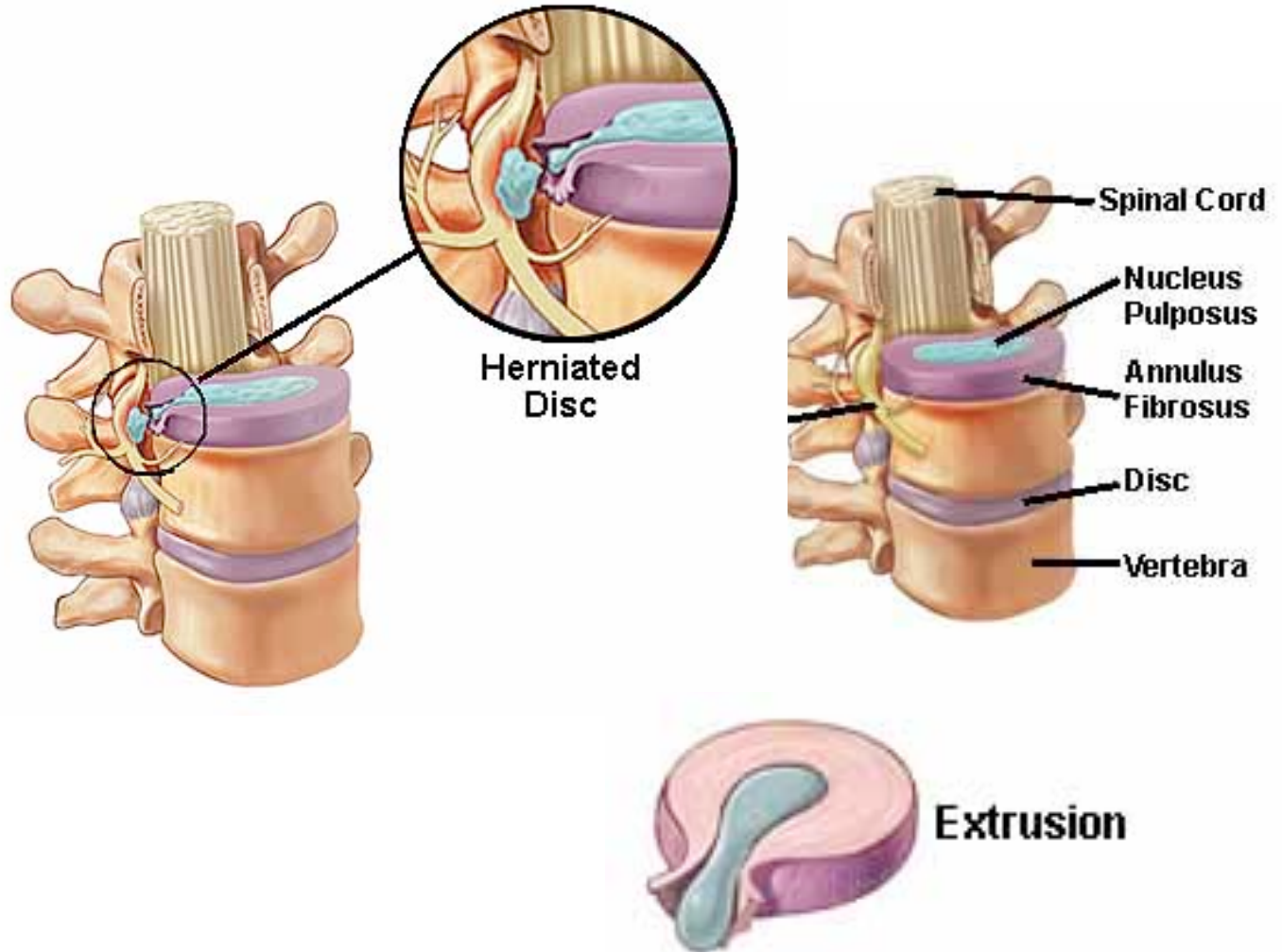
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## Cervical Herniated Disc

In between each of the vertebrae (bones) in the spine is an intervertebral disc, a tough fibrous shock-absorbing pad. Each disc contains a tire-like outer band (called the annulus fibrosus) that encases a gel-like substance (called the nucleus pulposus).

Nerve roots exit the spinal canal through small passageways between the vertebrae and discs. Pain and other symptoms can develop when the damaged disc pushes into the spinal canal or nerve roots.

Cervical disc herniation occurs when the annulus fibrosus breaks open or cracks, allowing the nucleus pulposus to escape. This is called a **Herniated Nucleus Pulposus** (HNP) or **herniated disc**.





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## Symptoms

Neck Pain

Pain Between Shoulder Blades

Arm Pain

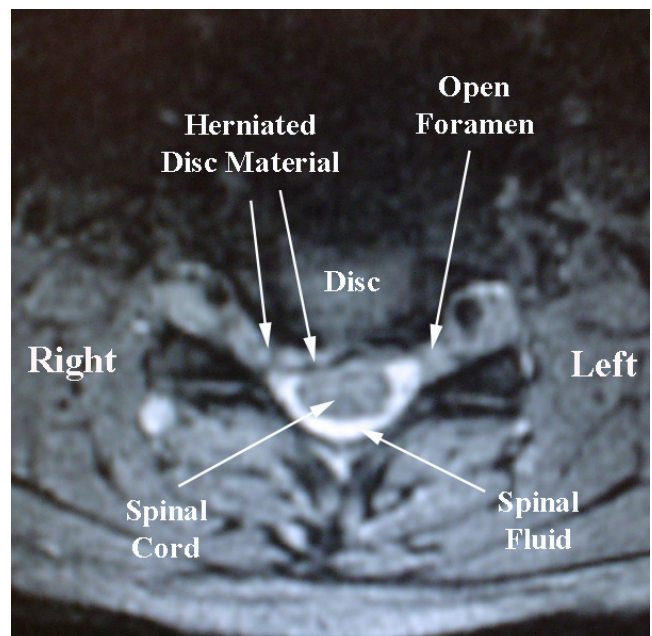
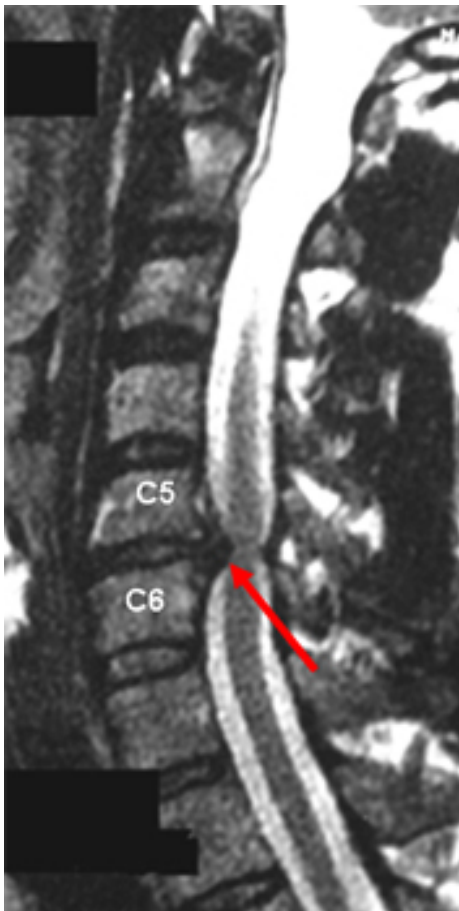
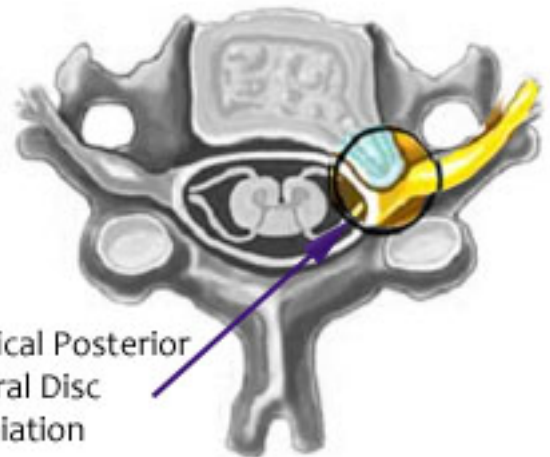
Arm Weakness

Muscle Atrophy

Finger and Hand Numbness

## Imaging Studies

A magnetic resonance imaging test (**MRI**) of the cervical spine is necessary to clearly define the disc injury





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## Non-Surgical

Most patients do not need surgery!

During the first 24 to 48 hours **cold therapy** helps to reduce swelling, muscle spasm and pain by reducing blood flow.

After the first 48 hours, **heat therapy** can be applied. Heat increases blood flow to warm and relax soft tissues.

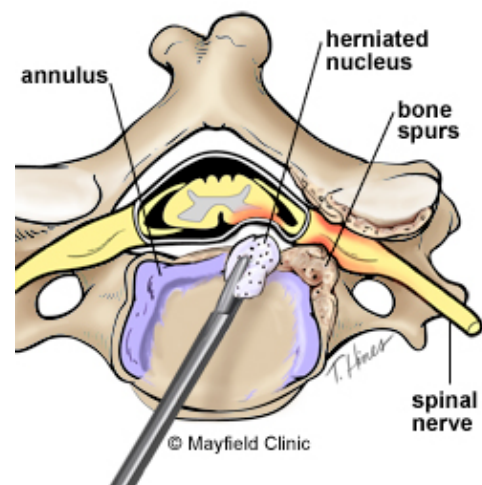
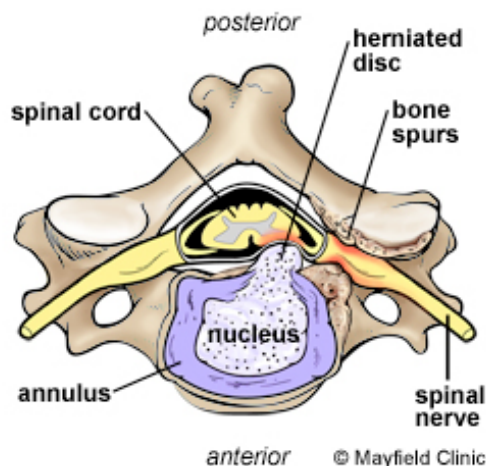
**Medications** may include an anti-inflammatory to reduce swelling, a muscle relaxant to calm spasm.

**Physical therapy** is used to decrease pain and increase flexibility. Ice and heat therapy, gentle massage, stretching, and neck traction are some examples.

**Epidural Injections** can be performed to reduce the inflammation around the irritated nerve root.

## Surgical

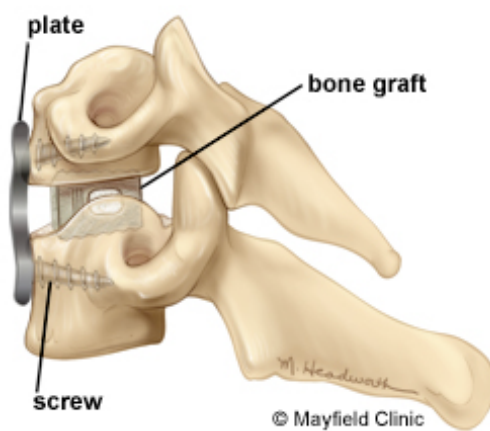
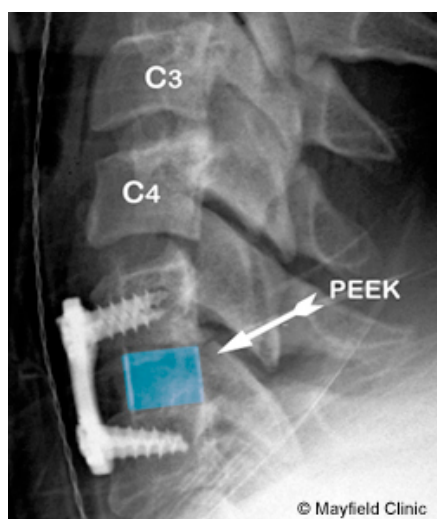
Surgical intervention is considered when a patient with a cervical herniated nucleus pulposus continues to have pain, weakness, and/or numbness, and has failed conservative modalities. The goal of surgery is to remove the compression from the spinal cord and/or spinal nerves and to improve a patient's pain and level of function. The preferred surgical treatment is an anterior (front of the neck) cervical discectomy (removal of the disc) and fusion (mending the spine bones together) **ACDF**.





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### Anterior Discectomy and Fusion – ACDF



### Cervical Disc Replacement – Is an option for certain patients

