



## OrthoInfo Basics

# Herniated Disk

**Most people will experience back or neck pain at some point in their lives. When it happens, many daily activities become difficult to do.**

A common source of back or neck pain is a herniated disk.

Sometimes called a slipped or ruptured disk, a herniated disk most often occurs in your back. The condition also affects the smaller disks in your neck.

Although a herniated disk can sometimes be very painful, most people feel much better with just a few months of nonsurgical treatment.

### What parts of your spine are affected?

Understanding your spine can help you better understand a herniated disk.

**Vertebrae.** Your spine is made up of vertebral bones that are stacked on top of one another. These bones connect to create a canal that protects the spinal cord.

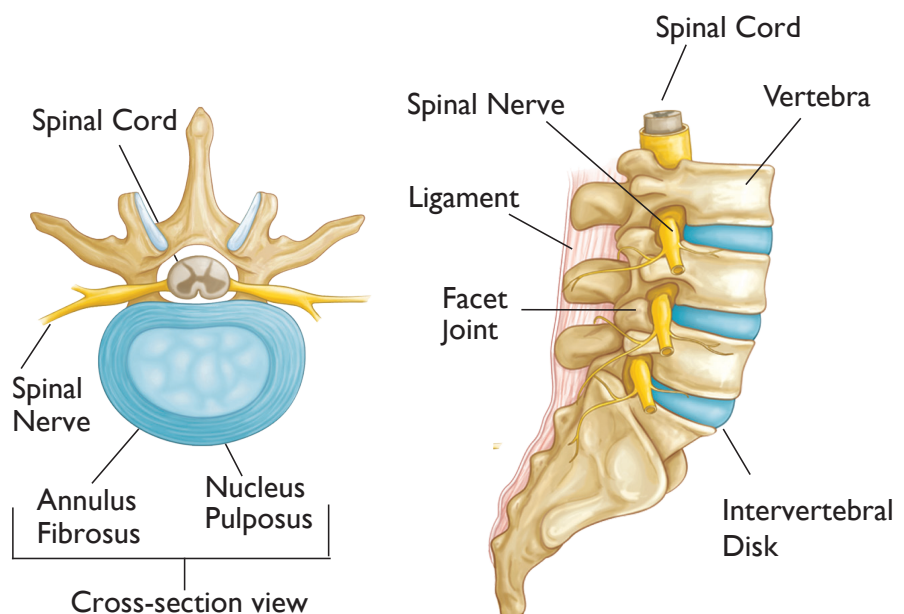
**Spinal cord and nerves.** These “electrical cables” travel through the spinal canal carrying messages between your brain and muscles.

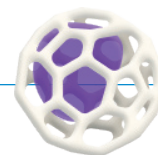
**Intervertebral disks.** In between your vertebrae are flexible intervertebral disks. They act as shock absorbers when you walk or run.

Intervertebral disks are flat and round, and about a half inch thick. They are made up of two components.

**Annulus fibrosus.** This is the tough, flexible outer ring of the disk.

**Nucleus pulposus.** This is the soft, jelly-like center of the disk.





### How does it happen?

In many cases, a herniated disk is related to the natural aging of your spine.

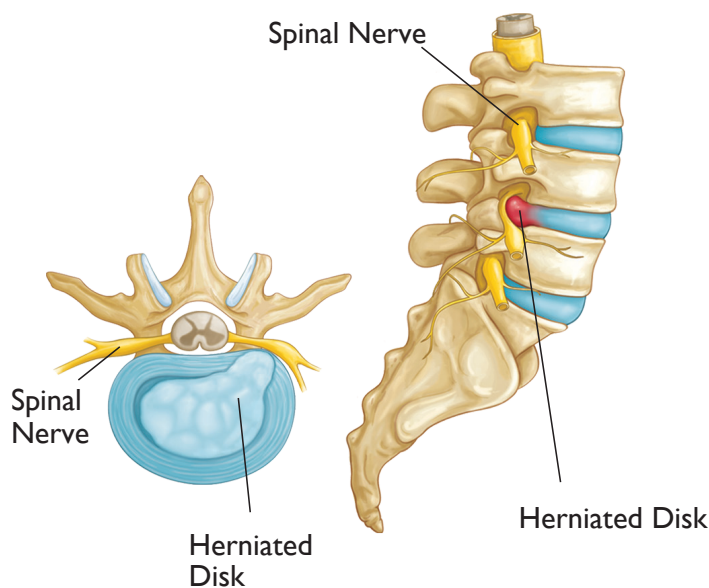
In children and young adults, disks have high water content. As we get older, our disks begin to dry out and weaken.

**How it happens.** A disk herniates when its jelly-like center pushes against its outer ring. If the disk is very worn or injured, the jelly-like center may squeeze all the way through.

When the herniated disk bulges out toward the spinal canal, it puts pressure on the sensitive spinal nerves, causing pain.

**Symptoms.** Pain from a herniated disk often includes sciatica, a sharp, often shooting pain that extends from the buttocks down the back of one leg.

Numbness, tingling, and weakness in one leg is also common. If the herniated disk is in your neck, burning pain and numbness may occur in your neck, shoulder, or arm.



### Who is at risk for a herniated disk?

Knowing what puts you at risk for a herniated disk can help you prevent further problems.

**Age.** A herniated disk is most often related to the gradual wear and tear that comes with aging.

Disks weaken with age, so people who are middle-aged are more prone to disk problems.

**Improper lifting.** Using your back muscles to lift heavy objects, instead of your legs, can cause a herniated disk. Twisting while you lift can also

make your back vulnerable. Lifting with your legs, not your back, can protect your spine.

**Weight.** Being overweight puts added stress on the disks in your lower back. Losing just a few pounds can reduce this stress.

**Repetitive activities that strain your spine.** Many jobs are physically demanding. Some require constant lifting, pulling, bending, or twisting. Using safe lifting and movement techniques can help protect your back.

### How is a herniated disk treated?

Most people get relief from symptoms without surgery.

**Rest.** Some people find that rest breaks taken throughout the day help relieve pain. It is important to avoid sitting for long periods of time.

**Medication.** Analgesics and anti-inflammatory medications may relieve pain. Steroids also effectively reduce symptoms. If you are having spasms in your back, legs, or arms, your doctor may prescribe a muscle relaxant.

**Cold and heat.** Many patients find that cold compresses applied several times a day provide pain relief. After any spasms settle, gentle heat may also relieve symptoms.

**Physical therapy.** Specific exercises can strengthen your lower back and abdominal muscles. A physical therapist can also apply traction if you have a herniated disk in your neck.



Good posture is important to avoid future episodes. A therapist can provide training in proper standing, sitting, and lifting.

If your symptoms persist, your doctor may suggest further imaging tests and surgery.

**Imaging studies.** X-rays will not show a herniated disk, but may rule out other problems. Magnetic resonance imaging (MRI) scans can create better images of soft tissues and are used most often in evaluating a herniated disk.

Your MRI study may show a disk bulge, protrusion, or herniation, which are all different degrees of disk displacement. Your doctor will discuss with you the treatment options that are best for you.

**Epidural steroid injection.** In this procedure, a steroid is injected into your neck or back to reduce local inflammation. Steroid injections are very effective at relieving symptoms. More than one injection may be necessary.

**Lumbar microdisectomy.** This is the most common procedure for a herniated disk in the lower back. Microdisectomy involves removing the herniated part of the disk that is putting pressure on the spinal nerve.

**Cervical disectomy with fusion or with disk replacement.** Cervical disectomy is a procedure for a herniated disk in the neck. To relieve pressure, the entire herniated disk is removed. For a fusion, bone is placed into the empty disk space. For a disk replacement, an artificial disk made of metal and plastic is inserted into the disk space.

### For more information

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For more information about common causes of back pain, visit *OrthoInfo* at [www.orthoinfo.org](http://www.orthoinfo.org).

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