



# Disc Herniation

## **What is a herniated disc?**

The spinal column is made up of bones that provide stability. In between the bones are cushions called discs; these discs act as shock absorbers. The discs are made up of a two parts: an outer shell of cartilage called the annulus fibrosis and a gel-like inner substance called the nucleus pulposus. In other words, a disc is like a jelly donut with an outer crust and soft filling.

A disc herniation means that some of the gel inside the disc has leaked from its outer covering. This changes the shape of the disc leading to irritation and possibly compression of the spinal cord itself or one of its large branches. Disc herniations are much more common in adults than in children or adolescents. However, they can occur in young people, especially in athletes involved in gymnastics, golf, diving and weightlifting.

## **How does disc herniation occur?**

Disc herniations occur when the bending or twisting forces placed on the spine cause too much physical stress for the disc to absorb. A disc herniation can occur with just one movement of the spine (e.g. picking up a heavy object) or it can be from a repetitive movement (e.g. a golf swing). Sometimes a disc herniation can result from a fall or accident.

## **What are the sign and symptoms?**

Disc herniations can lead to back pain as well as pain into the buttocks and one or both legs. The pain is usually worse with activity, especially with bending forward, sitting, laughing or coughing. However, sometimes other positions like standing or lying down, are especially painful. You may also experience abnormal sensations in your legs, including numbness, tingling, or feeling like your leg is 'asleep'. You may even feel weakness in your leg muscles.

## **How is it diagnosed?**

Your doctor will review your symptoms and examine your back and legs. Your doctor may order an x-ray or other imaging studies, such as an MRI or an electro-diagnostic study (EMG) to help determine if there is a disc herniation causing your pain.

## **How is it treated?**

Your doctor will recommend rest from irritating activities until the pain improves. Being as active as possible will help you get better faster; however, it is important to avoid the movements that make your pain worse. Your doctor may also prescribe medicine to reduce your pain and/or to decrease inflammation.. Physical therapy is a very important component of the treatment of a herniated disc. Initially the therapy will focus on decreasing your pain. Once your pain control improves, you can advance to range of motion and strengthening exercises which help stabilize your spine. Once your mobility and strength have improved, you can gradually return to sport-specific activities. If you pain does not improve with a spine-specific physical therapy program, your doctor may recommend injection of steroid medication into the back to decrease inflammation around the disc.

Most patients have significant improvement or resolution of their symptoms without surgery. However, if your pain is unbearable or if you have progressive weakness or loss of sensation in your legs, you may require surgery.



**When can I return to my sport or activity?**

In general, herniated discs take 4-6 weeks to heal. However, everyone recovers at a different rate. You must be pain-free with daily activities as well as running, jumping, twisting and bending before returning to your sport or activity.

**What can I do to prevent a herniated disc?**

You can reduce your risk of having a herniated disc by keeping your abdominal and back muscles strong and flexible. Other factors that are helpful are staying within a healthy weight, eating a proper diet and getting regular exercise. It is also important to stand and sit with an upright posture as well as use proper form when bending and lifting heavy objects.