

I Have a Disk Herniation, Now What?

By Dr. Robert DeVincentis

Anatomy of a Disk

Vertebral disks are located between each vertebrae in the spinal column. The function of the vertebral disk is to provide a cushioning of the spinal column and allow flexibility of the spine. The disc is designed to protect the spinal cord and the spinal cord nerve roots in the event of any trauma. The spinal nerve roots are the places where the nerves exit the spinal cord and go to the rest of the body. At every vertebral level there is a spinal nerve root. The spinal nerves that exit the lower portion of the cervical spine or neck will feed the arms and hands and the spinal nerves that exit the lower portion of the lumbar spine or low back feed the legs and feet. The disk is made up of two major tissues, the annulus fibrosis and the nucleus pulposus. The annulus or the annular fibers are the exterior portion of the disk and form the outer rim of the disk. The annulus is comprised of more dense fibrotic tissue. The nucleus pulposus is located in the center of the disk and is comprised mostly of a thick gel or liquid. Think of the disk as a jelly doughnut without a hole in the middle. The jelly is the nucleus pulposus and the outer dough is the annulus fibrosis.

Disk Herniation

What usually happens in a Disk Herniation or protrusion is the hard annular fibers become damaged in a certain area and causes a weakening in the disk. When this weakening occurs, the nucleus pulposus or the fluid will leak out into the space where the annular fibers should be. Now the hard annular fibers will not be able to contain all the fluid in the middle of the disk. This will cause the disk to bulge out into the space where the nerve root exits. Picture a car tire when it has a weak spot in it and it bulges out. Or think of rubbing hard with sandpaper on the inside of a bicycle tire and then it bulges out. The rubber in the car or bicycle tire represents the annular fibers and the air contained in the middle represents the nucleus pulposus.

Most causes of disk herniations are usually chronic in nature, meaning there is no real trauma which causes the herniation. The disk will slowly weaken through time and eventually cause symptoms without anything happening. A typical case seen in my office that demonstrates this is as follows: Patient comes in with severe leg pain and numbness and is bent over to the opposite side. On the initial consultation, the patient stated he was fine but bent over the sink to brush his teeth and immediately felt all the pain and numbness in his leg. An MRI done later that day reveals a disk herniation in his lower back. So the question is, did the simple act of brushing his teeth cause the herniation or were there problems existing prior to this and was this the straw that broke the camel's back? Compare disk herniations to a tire blowout, the rubber around a tire will become weak and worn away until finally it will just blow out.

When the disk puts pressure on this nerve root, it will cause pain or numbness to the effected area. In many cases this is the primary cause of sciatica. So you see, sciatica is not a problem with the leg, but it is a problem within the lower back and is usually due to a disk bulge or protrusion. If the disk bulge or herniation is located in the lower portion of the neck, the possible symptoms will be pain or numbness that will travel down to the affected arm or hand.

Most disk herniations occur in these two areas. If left untreated, disk herniations will lead to muscle atrophy and weakness.

Conservative Treatment

In any medical condition, the most least invasive treatment should be attempted first before other possibly dangerous treatments are attempted. In treatment, you must list the possible advantages and disadvantages of each possible treatment before deciding which course of treatment to go with. It is your own body and you have the ultimate decision on what you do with it. The days of doctors being God is over. Doctors have a duty to provide the best treatment possible and give alternatives if available. The patient should make an informed decision on the best possible treatment. In my office, patients are made well aware of possible options for treatment of their condition.

Chiropractic care can be a possible course of treatment for spinal disk herniations. Disk herniations have been known to heal. If we go back to the anatomy of the disk, this could be understood better. The annular fibers of a herniated disk are damaged and thin which will cause the fluid in the middle to leak out into the weak space. These annular fibers can mesh back up and become thick and strong again which will contain the fluid back into the center of the disk and stop the bulging. However, the only way this can happen is if there is no strain or stress applied to the weak and sensitive annular fibers. More specifically, the vertebrae must not continuously compress or grind on the soft fibers of the disk. Think of a fresh scab on the skin after an injury to it, if every five seconds you constantly scraped at it, it would never heal. The same thing holds true for the disk. This is how chiropractic treatment can be effective for the management of spinal disk herniations. If the pressure is taken off of the soft fibers of the disk, the disk may be able to heal. By doing a spinal adjustment a chiropractic physician may be able to release the pressure off of the disk. The muscles surrounding the spine also attach to the vertebrae. If the muscles are tight or in spasm they will compress the vertebrae together and cause them to grind on the disc. Your chiropractor may prescribe neuromuscular therapy together with spinal adjustments for the treatment of disk herniations. And last, but definitely not the least, your chiropractor will prescribe a very specific exercise program that is designed to rehabilitate your condition. He or she will also determine what activities you currently do that may exacerbate your condition.

Just remember, the body is meant to heal itself. The way the human body works is absolutely astonishing. Alternative treatments for spinal disk herniations such as chiropractic aren't 100% effective as are most things in life. The human body can be too damaged for its ability to heal itself, however, this is usually not the norm. This is only in extreme and rare circumstances. You have alternatives to treatment of spinal disk herniations, just weigh out the pros and cons and make an educated decision. Don't forget, it is your body and you have to live with it for the rest of your life.

*Dr. Robert DeVincentis owns a sports chiropractic clinic located on
Beach Blvd. near San Pablo and can be reached at 223-1616.
www.doctor-d-chiro.com*

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