



# SANTIAGO CHIROPRACTIC ASSOCIATES

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## SLIPPED DISCS, SCIATICA & STENOSIS, OH MY!

*The low down on low back pain*

**Lake Hiawatha, NJ, October 2013**— Low back pain can be frightening, but sometimes, understanding where it is coming from can make things a little less scary. Let's start with some basic anatomy: You have five bones called vertebrae that make up your lumbar spine. Each bone is named by a number L (Lumbar) 1 is at the top, continuing down to L5 at the bottom which all rest on a triangular bone called the sacrum. Between each of these bones there is an intervertebral disc. The disc can be thought of as a jelly doughnut. The soft inner part of the disc (jelly) is called the nucleus pulposus. The tough outer layer of the disc is called the annulus fibrosus (dough of the doughnut) (*See Figure 1*). This design allows the disc to provide immense stability as well as motion in all planes. The vertebrae and discs work together to create a movable protective mechanism for the spinal cord that runs behind them in the spinal canal and the nerve roots that exit out to the sides. Now that you have an understanding of anatomy, we will look at different conditions.

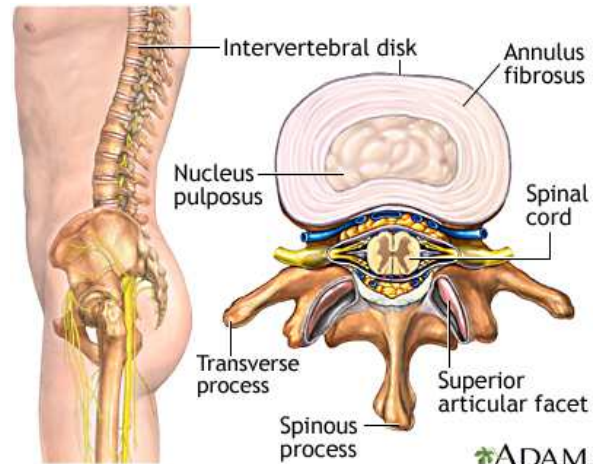


Figure 1

The Intervertebral Disc  
(Viewed from above)

**Disc Bulge:** As we age our discs lose their fluidity. The water that used to hold the disc filled to maximum capacity is reduced, causing the disc to “slowly deflate” resulting in the edges of the disc pushing outward (*See Figure 2*). The key factor determining a disc bulge from a disc herniation, is that the width of the deformation is greater than the distance front to back. This creates a look of a hamburger (disc) that is too big for the bun (vertebrae). Disc bulging is a somewhat normal part of aging and usually not painful. Unfortunately, with the overdependence on diagnostic imaging, bulges are commonly found on MRI and incorrectly blamed as the source of a patient's pain.

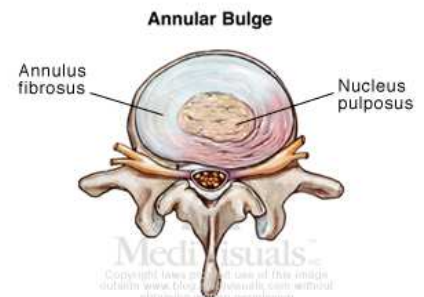


Figure 2

*Continued on Page 2....*



### Dr. Santiago Presents Newest Hall of Fame Inductee

On Saturday, September 28th, 2013, eight years following his own induction into the Sports Chiropractic Hall of Fame, Dr. Santiago welcomed Dr. Robin Hunter (pictured 3rd from right) to the club. Dr. Hunter, the first female to be inducted into the Hall of Fame, served as the US Team Chiropractor in the 2002 Winter Games in Salt Lake City and was also the Past President of the Ohio State Sports Medical Staff. There have only been nine others inducted into the Hall of Fame since Dr. Earl Painter, the trainer/chiropractor for Babe Ruth and the New York Yankees.



## SLIPPED DISCS, SCIATICA & STENOSIS, *OH MY! Continued...*

**Disc Herniation, Disc Protrusion, Slipped Disc:** All of these terms are used for the same condition where the nucleus pulposus (jelly) pushes through the tough annulus fibrosus (dough), creating a focal deformation characterized by the distance front to back being greater than the width. These injuries are caused by repetitive, long term or overloaded full flexion (at a specific joint, ex: L4-L5) of the lumbar spine. During these injuries the nucleus pulposus migrates backwards through the layers of the tough annulus fibrosus and causes a focal area of that disc to push out (See Figure 3). This is a much more serious condition because the part of the disc that is pushing out (herniation) can put pressure on the nerve roots that are connected to the spinal cord. Signs/symptoms can be found in the lower extremities including muscle weakness, sensation changes (pain or numbness and tingling) or changes in reflexes. This condition is called a radiculopathy. If you have any of these symptoms, talk to your Chiropractor right away! These changes are potentially irreversible if not properly evaluated, diagnosed and treated. Although some disc herniation symptoms will require surgical intervention, many manual practitioners have success managing these conditions in patients living active lives.

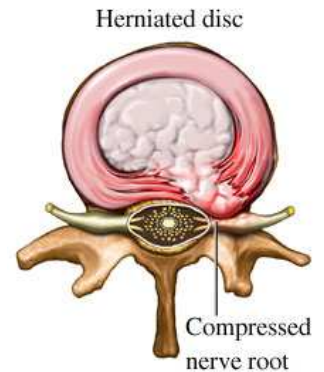


Figure 3

**Sciatica:** This is the condition everyone loves to blame. Any pain in the low back, buttocks, hamstring, calf and foot commonly gets incorrectly called sciatica. True sciatica is from pressure put on the sciatic nerve. The sciatic nerve travels down the leg and into the foot. The common place for entrapment (pressure put on nerve) is the piriformis muscle, located deep in the gluteal musculature (See Figure 4). However, there are many other locations for entrapment of this nerve. A skilled manual practitioner will likely be able to locate the problem area and free this nerve.

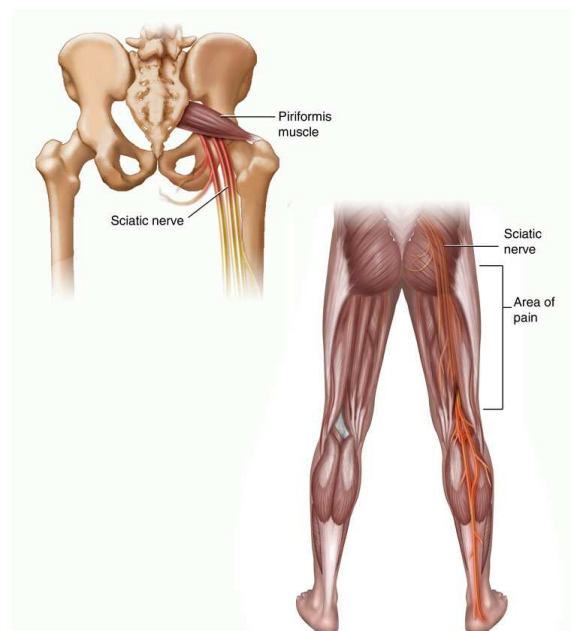


Figure 4

**Spinal Stenosis:** This condition is commonly seen in people during the 5th decade of life and later. Earlier, we learned that discs lose their fluidity with age. With the loss of fluidity is a loss of structural support, allowing the vertebrae above to close down on the vertebrae below. This, along with arthritic enlargement of the facets and ligaments, can result in a closing or “stenosing” of the opening where the nerve roots exit the spinal cord and/or of the spinal canal itself which houses the spinal cord. These individuals will likely present with symptoms of a radiculopathy in both legs, struggle with extended postures and have difficulty with walking downstairs or downhill. This condition is most difficult to treat. Take care of your spine now before it is too late!

## HAVE A HAPPY AND HEALTHY HALLOWEEN!!!

Try one of these creative and healthy snack ideas with your kids or at your parties this year.....



Veggie Skeleton



Sweet Potato Jack-o-lanterns



Banana/Chocolate Ghosts  
Orange & Celery Pumpkins



Spider Eggs/  
Olives



Carrot and Almond Slice  
Witch Fingers



Strawberry Ghouls



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