Institute for Spine & Sports Care

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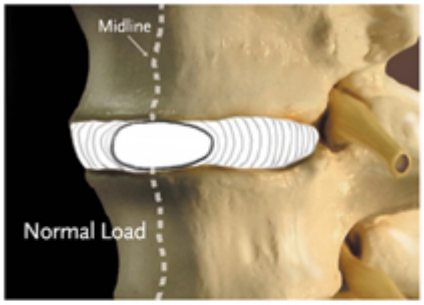
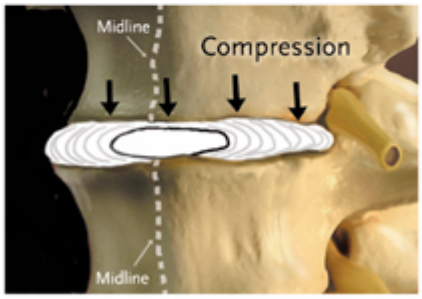
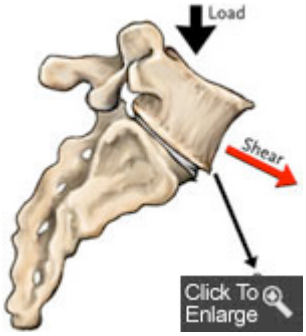
Degenerative Disc Disease

Unfortunately, as we age, our intervertebral discs lose their flexibility, elasticity, and shock absorbing characteristics. The ligaments that surround the disc called the annulus fibrosis, become brittle and they are more easily torn. At the same time, the soft gel-like center of the disc, called the nucleus pulposus, starts to dry out and shrink. The combination of damage to the intervertebral discs, the development of bone spurs, and a gradual thickening of the ligaments that support the spine can all contribute to degenerative arthritis of the lumbar spine.

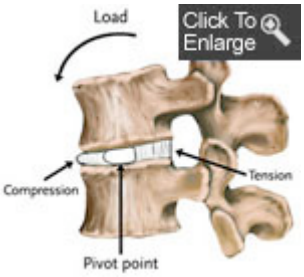






However, not everyone who has degenerative changes in their lumbar spine has pain. Many people who have "normal" backs have MRIs that show disc herniations, degenerative changes, and narrowed spinal canals. Every patient is different, and it is important to realize that not everyone develops symptoms as a result of degenerative disc disease.

When degenerative disc disease becomes painful or symptomatic, it can cause several different symptoms, including back pain, leg pain, and weakness. These symptoms may be caused by the worn out discs. Since one of the jobs of the disc is to act as a spacer between the spine. Degeneration will



cause the disc space to decrease. So the joints in the back of the spine called the facet joint are compressed and can cause pain. The disc itself is more susceptible to becoming painful because it is weakened due to the degeneration and can have tearing of the fibers creating pain. Since the space between the bones is decreased so is the opening for the nerve root to pass so it can become entrapped and symptomatic. As the discs between the intervertebral bodies wear out, the entire lumbar spine becomes less flexible. As a result, people complain of back pain and stiffness, especially towards the end of the day.

Symptoms

The most common symptom of degenerative disc disease (DDD or DJD degenerative joint disease) is back pain. When DDD/DJD causes compression of the nerve roots, the pain often radiates down the legs or into the feet, and may be associated with numbness and tingling. In severe cases of lumbar DDD/DJD, where there is evidence of nerve root compression, individuals may experience symptoms of sciatica and back pain, and sometimes even lower extremity weakness.

A routine set of x-rays is usually ordered. If degenerative disc disease is present, the x-rays will often show a narrowing of the spaces between the vertebral bodies, which indicates that the disc has become very thin or has collapsed. Bone spurs may be seen around the edges of the vertebral bodies and also around the edges of the facet joints in the spine. These bone spurs can be seen on an x-ray, where they are called osteophytes. As the disc collapses and bone spurs form, the space available for the nerve roots starts to shrink.

Treatment:

The good news this **does not mean** that you will always have pain. If it is possible to decrease the stress on the painful structures that is what we specialize in. Through very specific manipulation of the spine and the structures around the spine we can relieve the painful tissue and your symptoms. Now we can not do anything to change the arthritis that is already there but we can keep the spine mobile so it is less symptomatic. Long term if we are able to relieve your pain it is essential that you re-learn how to do certain movements so they do not continually aggravate this tissue.

The next phase of care for you once your pain is decreased is to start to use the muscles around the spine to maintain normal movement. If you are able to maintain pain free ranges of motion then your pain is under control and you will stop further degeneration of your spine. We do that by teaching you specific exercise that will add stability and therefore maintain pain free movement. Our therapist and doctors have been specially trained to evaluate your movements and create a program for you so that you can get back in the game and maintain your active lifestyle.