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Degenerative Disc Disease - Topic Overview

What is degenerative disc disease?

[Degenerative disc disease](#) is not really a disease but a term used to describe the normal changes in your [spinal discs](#) as you age. Spinal discs are soft, compressible discs that separate the interlocking bones ([vertebrae](#)) that make up the [spine](#). The discs act as shock absorbers for the spine, allowing it to flex, bend, and twist. Degenerative disc disease can take place throughout the spine, but it most often occurs in the discs in the lower back (lumbar region) and the neck (cervical region).

See a picture of the [spine](#)  and the [discs in your spine](#) .

The changes in the discs can result in back or neck pain as well as:

- [Osteoarthritis](#), the breakdown of the tissue ([cartilage](#)) that protects and cushions joints.
- [Herniated disc](#), an abnormal bulge or breaking open of a spinal disc.
- [Spinal stenosis](#), the narrowing of the [spinal canal](#) , the open space in the spine that holds the [spinal cord](#) .

These conditions may put pressure on the spinal cord and nerves, leading to pain and possibly affecting nerve function.

What causes degenerative disc disease?

As we age, our spinal discs break down, or degenerate, which may result in degenerative disc disease in some people. These age-related changes include:

- The loss of fluid in your discs. This reduces the ability of the discs to act as shock absorbers and makes them less flexible. Loss of fluid also makes the disc thinner and narrows the distance between the vertebrae.
- Tiny tears or cracks in the outer layer (annulus or capsule) of the disc. The jellylike material inside the disc (nucleus) may be forced out through the tears or cracks in the capsule, which causes the disc to bulge, break open (rupture), or break into fragments.

These changes are more likely to occur in people who smoke cigarettes and those who do heavy physical work (such as repeated heavy lifting). People who are [obese](#) are also more likely to have symptoms of degenerative disc disease.

A sudden (acute) injury leading to a herniated disc (such as a fall) may also begin the degeneration process.

As the space between the vertebrae gets smaller, there is less padding between them, and the spine becomes less stable. The body reacts to this by constructing bony growths called bone spurs (osteophytes). Bone spurs can put pressure on the [spinal nerve roots](#) or spinal cord, resulting in pain and affecting nerve function.

What are the symptoms?

Degenerative disc disease may result in back or neck pain, but this varies from person to person. Many people have no pain, while others with the same amount of disc damage have severe pain that limits their activities. Where the pain occurs depends on the location of the affected disc. An affected disc in the neck area may result in neck or arm pain, while an affected disc in the lower back may result in pain in the back, buttocks, or leg. The pain often gets worse with movements such as bending over, reaching up, or twisting.

The pain may start after a major injury (such as from a car accident), a minor injury (such as a fall from a low height), or a normal motion (such as bending over to pick something up). It may also start gradually for no known reason and get worse over time. In some cases, you may have [numbness or tingling](#) in your leg or arm.

How is degenerative disc disease diagnosed?

Degenerative disc disease is diagnosed with a medical history and physical examination. Your doctor will ask about your symptoms, injuries or illnesses, any previous treatment, and habits and activities that may be causing pain in the neck, arms, back, buttocks, or legs. During the physical examination, he or she will:

- Check the affected area's range of motion and for pain caused by movement.
- Look for areas of tenderness and any nerve-related changes, such as numbness, tingling, or weakness in the affected area, or changes in [reflexes](#).
- Check for other conditions, such as fractures, tumors, and infection.

If your initial examination reveals no signs of a serious condition, [imaging tests](#), such as an [X-ray](#), are unlikely to help the diagnosis. Imaging tests may be considered when your symptoms develop after an injury, nerve damage is suspected, or your medical history suggests conditions that could affect your spine, such as bone disease, tumors, or infection.

How is it treated?

To relieve pain, put ice or heat (whichever feels better) on the affected area and use [acetaminophen](#) (such as Tylenol) or [nonsteroidal anti-inflammatory drugs](#), including aspirin (such as Bayer), ibuprofen (such as Advil), or naproxen sodium (such as Aleve). **Do not give aspirin to anyone younger than 20** because of the risk of [Reye syndrome](#). Acetaminophen (such as Tylenol) also can help relieve pain. Your doctor can prescribe stronger medicines if necessary.

Further treatment depends on whether the damaged disc has resulted in other conditions, such as osteoarthritis, a herniated disc, or spinal stenosis. Physical therapy and exercises for strengthening and stretching the back are often recommended, and in some cases surgery may be recommended. Surgery for degenerative disc disease usually involves removing the damaged disc. In some cases, the bone is then permanently joined (fused) to protect the spinal cord. Also, artificial discs are sometimes used to replace the disc that is removed.