Herniated Disc

by Amy Scholten, MPH

Definition

Discs are small circular cushions between the bones in the spine. The bones are called vertebrae. The discs are compressible. They act as cushions for the vertebrae. A herniated disc happens when discs in the spine bulge from their proper place. This is most common in the lower spine.

Causes

Herniated discs can occur when discs lose water content, become flatter, and provide less cushioning. If they become too weak, the outer part may tear. The inside part of the disc may then push through the tear. This can put pressure on the nerves next to the disc.
Risk Factors

These factors increase your chance of developing a herniated disc:

- Age: 30s and 40s
- Trauma from a fall, accident, or sudden twisting
- Strain on the back—either repeated or sudden (as from lifting a heavy weight)
- Certain jobs that require heavy lifting

Symptoms

Symptoms include:

- Pain—how severe the pain is depends on which disc is herniated and how large the herniation is
  - Pain may spread over the buttocks, down the back of one thigh, and into the calf
  - Pain may be in one leg (more common) or both legs
- Numbness, tingling, or weakness in the legs or feet
- Numbness, tingling, or weakness in one or both arms
- In severe cases, inability to find comfort even lying down
- Sudden aching or twisted neck that cannot be straightened without severe pain
- Cauda equina syndrome—involves bowel or bladder changes and/or numbness in the groin

  Note: This is an emergency, Call 911

Diagnosis

The doctor will ask about your symptoms and medical history. A physical exam will be done. Your spine will be examined. The doctor will test the movement, strength, and reflexes of the arms and legs.

Tests may include:

- X-ray—a test that uses radiation to take a picture of structures inside the body, especially bones
- CT scan—a type of x-ray that uses a computer to make pictures of structures inside the body
- MRI—a test that uses magnetic waves to make pictures of structures inside the body and allows both the bones and the disc to be seen
- Diskography—a test that involves injecting a dye into the center of the disc and then taking an x-ray, which may show the dye leaking out
- Electrodiagnostic testing—a test that measures the electrical activity of muscle by placing needle electrodes into the muscle
- Myelography—a type of x-ray that uses dye injected in the space around the spinal cord to more clearly outline the space containing the spinal cord and nerves, can show any disc herniation

Treatment

Treatments may include:
Physical Medicine

Bed rest
During acute phase, back or neck massage and physical therapy to:
- Relax the neck or back muscles
- Decrease pain
- Increase strength and mobility
Back and abdominal exercises during recovery phase
Hot or cold packs—to reduce pain and muscle spasms
Stretches for the spine: A doctor or chiropractor can sometimes help reduce pain by stretching your spine. Any spinal manipulation must be done carefully by an experienced, licensed practitioner.
Traction (weights and pulleys)—to relieve pressure on the discs and keep you from moving around (more common for discs in the neck area)
Neck collar or brace for a herniated disc in the neck—to relieve muscle spasms

Medications

Your doctor may prescribe:
- Nonsteroidal anti-inflammatory drugs (NSAIDs)—to reduce inflammation and pain (eg, ibuprofen, naproxen)
- Muscle relaxants—to reduce muscle spasms
- Pain medications

Interventional Spine Care

Steroid injections into the area around the nerve and disc. It is done to reduce pain and inflammation. The injections are used if other medications do not work.
Minimally invasive procedures may include:
- Nucleoplasty
- Intradiscal electrothermy (IDET)
- Chemonucleolysis

Surgery

Surgery may be used for people who fail to respond to other treatments. Immediate surgery is necessary for cauda equina syndrome. Options include:
- Laminectomy —removal of some of the bone over the spine and of the problem disc
- Microdiscectomy —removal of fragments of herniated disc through a small incision (also known as intervertebral diskectomy)
- Spinal fusion —fusing of vertebrae (back bones) together with bone grafts or metal rods (rarely done for first-time disc problems)

Prevention

To help reduce your chances of getting a herniated disc, take the following steps:
- Practice good posture. Stand and sit straight, and keep your back straight when lifting.
- Maintain a healthy weight.
- Exercise regularly. Ask your doctor about exercises to strengthen your back and stomach.
- Don't wear high-heeled shoes.
If you sit for long periods of time, use a stool to bring your knees above your hips.

RESOURCES:
American Academy of Orthopedic Surgeons
http://www.aaos.org
American Chiropractic Association
http://www.amerchiro.org

REFERENCES:
Last reviewed July 2010 by Robert E. Leach, MD
Last Updated: 7/9/2010

This content is reviewed regularly and is updated when new and relevant evidence is made available. This information is neither intended nor implied to be a substitute for professional medical advice. Always seek the advice of your physician or other qualified health provider prior to starting any new treatment or with questions regarding a medical condition.

To send comments or feedback to our Editorial Team regarding the content please email us at healthlibrarysupport@ebscohost.com.
In sometimes surprising ways, associations play direct and indirect roles in bringing the products, services, and activities of daily life to people around the world. Including snow. American Council of Snowmobile Associations. The folks at the American Council of Snowmobile Associations love snow-covered open spaces. ACSA began with the goal of helping preserve long-term use of public and private lands open to snowmobiles. The organization promotes communication between consumers and snowmobile manufacturers, encourages funding of snowmobile trails, and provides educational materials on safe and responsible snowmobiling. Snowsports Industries America. She Brought Up The Friendly Protagonist As A Villain. | I became a princess after a bus accident. But why does this situation seem so familiar? authorâ€™s.Â Lost your password? Please enter your username or email address. You will receive a link to create a new password via email. Username or Email Address. â† Back to MANGA68. Brought to you by the National Earth Science Teachers Association. Sun.Â How far is the Earth from the Sun, the Moon and all the other planets? How far are all of the planets from the Sun? Do you know of a software that tracks the planets in real-time? There is a really neat internet program called Solar System Live that shows the position of all of the planets and the Sun for any given day. If you go to that page, you'll see an image similar to the ...more. Is it really true that man never really walked on the Moon? The picture of the American Flag (the one put there by the Apollo astronauts) is waving (or straight out) in the wind. How could that be possible if there is no atmosphere on the Moon? Was it some sort ...more. How many planets orbit the sun? I was wondering if there is a new planet? SUN PROTECTION FACTOR, noun. An indication of how long a sunscreen remains effective when applied to the skin.Â SUN VISOR, noun. (automotive) A flap attached to the interior of an automobile by a hinge just above the windscreen/windshield, used to shade the eyes of occupants from the glare of sunlight. SUN WORSHIPER, noun. Alternative form of sun worshipper.Â Better than a thousand hollow words, is one word that brings peace. Buddha.