



Celebrate Wellness!

Your Spinal Discs: How to Care for Them

What is a spinal “disc?” What is its function? How can it cause problems?
What can I do to keep them healthy?

Your backbone isn't just one bone; rather, it's made up of individual bones called vertebrae. Most of us have 7 cervical vertebrae, 12 thoracics, 5 lumbar, and a tailbone (sacrum and coccyx). Between each set of vertebrae¹, and between the lowest lumbar (L5) and the sacrum, lies a cushion of cartilage called the disc or “intervertebral disc.” These 23 discs cushion the forces involved with walking, running, sitting, standing – actually all of our human movements. They make up about 25% of your spine's height during youth; and as we age, they dehydrate,² and lose height. This is a problem because as your vertebrae lose vertical height, the opening for the nerve roots and related tissues (veins, arteries) becomes smaller. “Stenosis” is when this space is narrowed to the point of irritating, and sometimes permanently damaging, these tissues.

There is an inner gelatinous component much like a jelly donut, which is pressurized due to the forces of gravity and activities of daily living. That pressure varies based on your position and activity. Lying down means very, very low disc pressure. Standing or sitting raises that pressure by 2-5 times; and lifting a 20 kg (44 lb) weight while standing increases that pressure by 10-20 times compared to resting/lying down.³ How you lift a weight makes a difference. Bending your knees and maintaining good neutral posture is a must. Hold a weight closer to your body, and you can literally halve the disc's pressure.⁴ Remember that the next time you're lifting a computer monitor or bag or mulch or grandchild.

Since discs are mostly water, you can help keep them healthy by drinking plenty of fluid. Pure water is a great choice. Another great choice: stop smoking. Smoking behavior is related to decreased disc hydration; and since desiccated (dried out) discs are more prone to injury, you'll be doing your spine (and also your lungs and family) a huge favor.

How do doctors determine what shape your discs are in? X-rays don't show the disc itself, but they do show the spaces between the spinal bones. A small space means that the disc has degenerated. A larger space suggests a better hydrated, healthier disc. Of course, a disc herniation (bulging or torn disc) won't show up on an x-ray. An MRI will reveal intimate details about the disc, yet beware rushing off to the surgeon. Studies of patients with no symptoms showed that disc abnormalities (dried discs, bulging discs) are common. A good doctor will look at the clinical picture, not just x-rays, CAT scans, MRI's, and other images, before determining an appropriate course of action.



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Chiropractic procedures can help normalize the joints that guide disc movement, as well as pumping nutrition to the disc itself. Better still, chiropractors may be able to help you minimize or prevent future problems. If you or someone you care about has problems related to a spinal disc, ask your chiropractor for guidance.

References: ¹ With the exception of the top 2 bones in the neck, which do not have a disc between them. ² Urban JP, McMullin JF. Swelling pressure of the lumbar intervertebral discs: influence of age, spinal level, composition, and degeneration.

Spine 1988 Feb;13(2):179-87 ³ Wilke, et al. New In Vivo Measurements of Pressures in the Intervertebral Disc in Daily Life. SPINE Volume 24, Number 8, 1999; pp 755-762. ⁴ Ibid **Celebrate Wellness!** is provided as a public service by the Unified Virginia Chiropractic Association, PO Box 15, Afton, VA 22920, phone 540-932-3100, e-mail vcacentral@hughes.net. Production and content courtesy of Trusted Voice. All rights reserved.