

Knowledge is Power: How to Keep Your Back Healthy

by Max W. Cohen, MD, FAAOS

Do you ever feel a twinge when you move a certain way and worry that a back problem is developing? Or perhaps you already suffer from lower back pain at times?

Many factors and conditions can affect the health of your spine. But almost all conditions, even those with a genetic component, can be influenced by things you do – or don't do – in your daily life. Some of the most important influences are your posture, your weight, your bone density and whether you smoke.

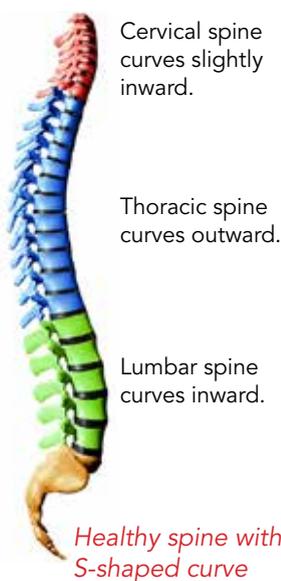
Learning more about the factors that you can control may help you prevent or decrease neck and back pain.

What is a healthy spine?

The first step in keeping your back healthy is to understand how it works. A healthy spine is composed of vertebrae, discs and nerves that stretch from your neck to your tailbone, supported by a web of muscles, tendons and ligaments. When experts talk about the importance of a strong "core" in maintaining a healthy back, they are referring to this interlinked support system, which includes your abdominal muscles and layer upon layer of back muscles. In addition, the muscles of the upper thighs, which attach to your pelvis, indirectly affect the back.

When your spine and all of its supporting structures work together correctly, you have a healthy spine with an S-shaped curve, also called a neutral spine:

- Your neck, or cervical spine, curves slightly inward.
- Your middle back, or thoracic spine, curves outward.
- Your lower back, or lumbar spine, curves inward.



Maintain a neutral posture

The key to avoiding back problems is to maintain a healthy, neutral spine position through the right balance of strength and flexibility.

Exercise can help you reach that goal. Your pelvis works a little like a wheel, with the hip joint at the center. As muscles of the abdomen, back, and upper thigh contract, the pelvis rotates. When the pelvis rotates forward, the lumbar curve increases. When the pelvis rotates backward, the curve of the low back straightens.

If certain muscles are too weak or too tight, the tilt of your pelvis changes and back pain can result. For example, when the abdominal muscles are weak and sag, the hip flexors become tight, causing an increase in the curve of the low back. If the hamstring muscles in your thigh become tight, the pelvis rotates backward. This produces an abnormal slouching posture that can cause pain.

Lose weight if you are overweight

If you are carrying extra pounds, losing weight will benefit your spine as well as your overall health. Excessive belly fat can change spine alignment by

rotating the pelvis forward, increasing the curve of the low back. It also can put pressure on the discs, which act as cushions between vertebrae. Extra weight has also been linked to increased spine osteoarthritis. In addition, people who are overweight often have decreased activity levels. Lack of exercise leads to an imbalance of strength and flexibility, shifting your spine out of its healthy neutral alignment.

Take steps to avoid osteoporosis

Osteoporosis, caused by low bone density, can lead to small fractures in the vertebrae of the spine. These compression fractures can create a curvature of the spine, sometimes called a "dowager's hump." Just one fracture affects how weight is distributed through the spine – causing pain and also placing higher than normal stress on the front of the spine, which can increase the risk of future fractures.

Quit if you are a smoker

Studies have shown that smokers have an increased risk for lower back pain. Researchers believe one reason for this is that nicotine restricts the flow of blood to the discs that cushion your vertebrae and increases the rate of degenerative change in the spine. Smokers also have more difficulty with healing after spine surgery.

What else can you do?

In the next issue, we will provide information on proper positions for sitting, standing and other activities to keep your spine healthy. If you have questions concerning your back health, please visit us at www.TriadSpine.com or call **336-333-6306** to schedule a consultation.

Max W. Cohen, MD, FAAOS, the founding physician of Spine & Scoliosis Specialists, is the only doctor in the Triad with double fellowship training in spine and scoliosis surgery. He has treated tens of thousands of patients and performed thousands of surgeries since he began practicing in 2002. He completed his training at Cornell University's prestigious Hospital for Special Surgery, the top-ranked orthopaedics hospital in the U.S., according to U.S. News & World Report.

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