

Back Care Principles

The spine has four main purposes:

1. To maintain the structure of our trunk.
2. To protect the spinal cord and nervous system.
3. To absorb shock.
4. To produce motion.

The structures of the spine include the bones (vertebrae), discs and ligaments. The muscles of the trunk support this structure, and along with the joints, provide mobility. The spinal cord is housed within the vertebral column. The nerves exit from the vertebral column to provide the body with the functions of the nervous system.



The spine is not straight. It has three natural curves:

- An inward curve at the neck
- An outward curve at the ribs
- An inward curve at the low back

When the three natural curves of the spine are maintained, the structures of the spine are in the position of least stress. This position is called “neutral”. When “neutral” is lost and the curves are not maintained, there is stress on the spine.

Keep your back healthy by minimizing deviations from “neutral”. Keep your back “neutral” by maintaining proper posture and by using your hips, knees and feet to produce movement, rather than your spine.

Image from: <https://www.spineuniverse.com/anatomy/normal-curves-your-spine>

During Sitting:



DON'T:

- Sit in a slouched position.
- Lean forward and downward to reach your work.
- Sit for long periods of time without getting up.



DO:

- Use support, such as a towel roll or a small pillow for your low back.
- Use a chair that provides support to your back.
- Sit close to your work so you don't have to reach forward with your trunk.
- Change positions frequently (ideally every 20-30 minutes).

During lying:

DON'T:

- Sleep on a sagging mattress that allows your back to lose the “neutral” alignment.
- Lie on your stomach with your head rotated for an extended period.
- Sleep in one position for too long.
- Flex or twist your trunk when you get up from a lying position.



DO:

- Use a pillow between your knees while lying on your side.
- Use a pillow underneath your knees while lying on your back.
- Rise to a sitting posture by rolling to your side, then using your arms to help push you up to a sitting posture.



During lifting:



DON'T:

- Bend forward from your spine.
- Keep your knees and hips locked and straight.
- Twist.
- Arch your back when lifting above shoulder height.



DO:

- Be sure that your body is as close to the object as possible.
- Bend your knees and hips as you lift.
- Turn with your feet to move the object.
- Keep your abdominal musculature tight.
- Keep your head (and nose) reasonably “up” as you lift.

An active exercise program is important in maintaining a healthy back. Exercises should address flexibility, strength and cardiovascular conditioning. Walking is generally one of the best exercises. Guidance from a physical therapist for exercise and body mechanics training can be instrumental in helping you to avoid episodes of back injury and to help you to recover from an injury that has already occurred.