

Back Health and Safety



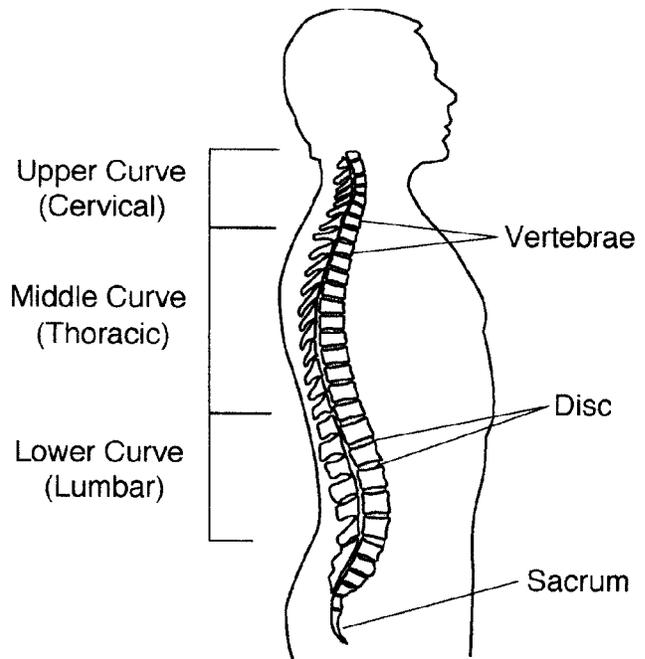
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Your back works all of the time, even when you are asleep. Over time, poor posture, movements and lack of exercise can lead to back problems. You can prevent most back problems if you use your back the correct way and exercise safely.

How your back works

Your back is made up of bones, discs, muscles, ligaments and nerves.

- **Bones** of the spine include 24 bones called vertebrae, and a larger bone called the sacrum or tailbone. These bones form 3 curves.
- **Discs** on top of each vertebra are like cushions. Regular exercise helps keep discs healthy.
- **Muscles** of the back, stomach, buttock and thigh give support to the back. If these muscles are weak, pulled, or tight, you may have problems with your back.
- **Ligaments** are tough elastic bands that hold bones together. Repeated stress on ligaments can lead to injury.
- **Nerves** coming from the spine tell the muscles when to move and cause pain when there is a problem.



Problems with your back can happen when you are not using the spine's natural curves, such as:

- Lifting with stiff knees
- Slouching in a chair
- Twisting at the waist over and over
- Working at surfaces that are too low or too high
- Working with your arms out too far in front of you

Keeping the spine's three natural curves in balance during your daily activities will lower your chances of back injury.

How to keep your back healthy

Use these tips to keep your spinal curves in balance to decrease your chances of back injury.

Standing

Look straight ahead and keep your ears in line with your shoulders. Your hips and knees are straight. The lower curve in your back is present but not curved too much. Limit twisting at the waist. Turn your body by moving your feet.



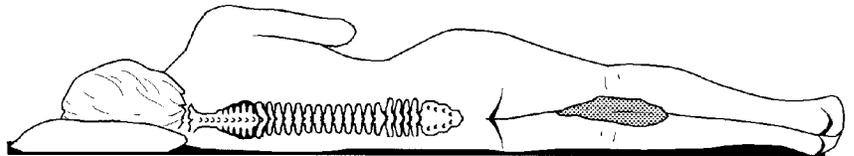
Sitting

Keep your hips, knees and ankles at a 90 degree angle. Sit up straight in a chair. Do not slouch. Use a pillow or rolled up towel if you need support for the lower curve of your spine.



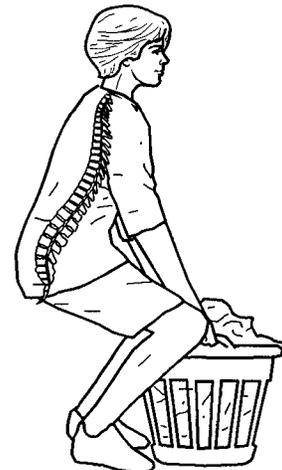
Lying Down

A firm, but not hard surface best supports the spinal curves. Sleeping on your side with a pillow between your knees is the best position for your back. If you sleep on your back, support your neck on a pillow and have a pillow under your arm. If you sleep on your stomach, use a thin pillow under your stomach and bend one leg to the side.



Lifting

Keep your back straight while bending and lifting. Use your leg and buttock muscles to lift. Bend the hips and knees, not the back, and squat when you lift an object. Keep the object close to your body. Straighten your legs and do not twist as you return to a standing position.

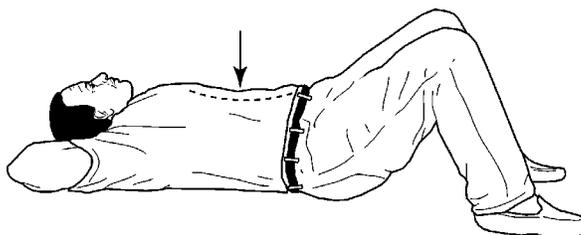


Exercises for your back

Most back pain is due to a lack of exercise or an injury. These exercises will help you move better and strengthen the muscles that support your back. Do the exercises slowly. If you have pain while doing these exercises, **stop doing the exercises** and talk to your doctor or physical therapist.

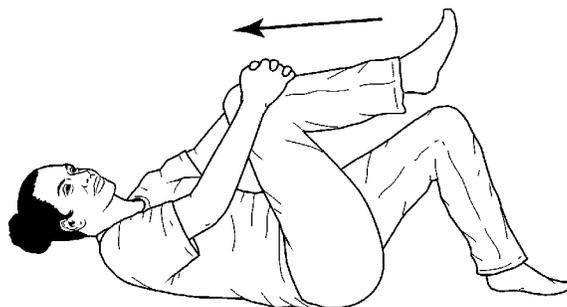
Pelvic Tilt

Tighten your stomach and buttocks. Push your lower back towards the floor. Hold for 10 seconds then relax.



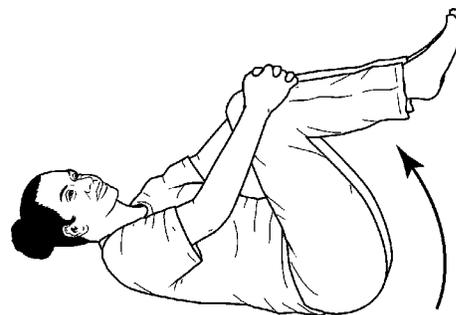
Single Knee to Chest

Pull one knee toward your chest until you feel a light stretch in your lower back and buttocks. Hold for 10 seconds then put your foot back down. Repeat this with the other knee.



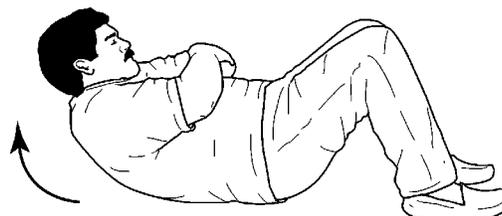
Double Knee to Chest

Slowly bring both knees to your chest. Hold for 5 seconds and keep your back relaxed and flat on the floor.



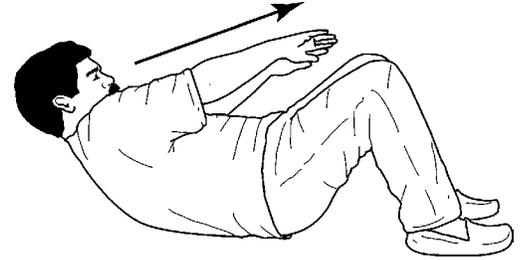
Curl Up

Bend your knees. Fold your arms across your chest and raise your shoulders until they come off the floor. Then slowly return to the starting position.



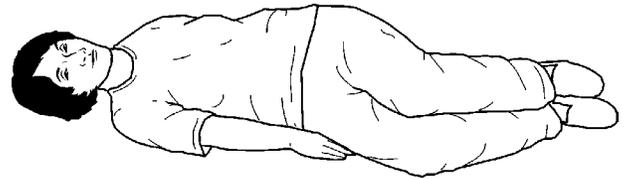
Diagonal Curl Up

With your arms held forward, lift your shoulders off the floor. Bring your right shoulder toward your left knee. Return to the floor. Then bring your left shoulder to your right knee.



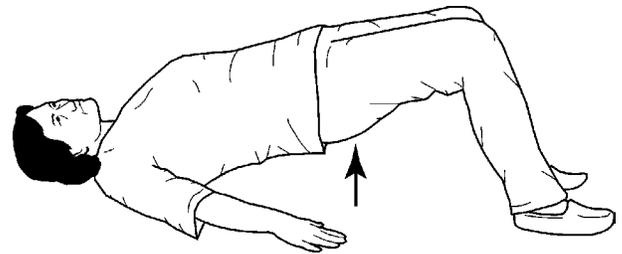
Hip Rolls

With your knees together, roll your hips slowly from side to side. Keep your shoulders on the floor.



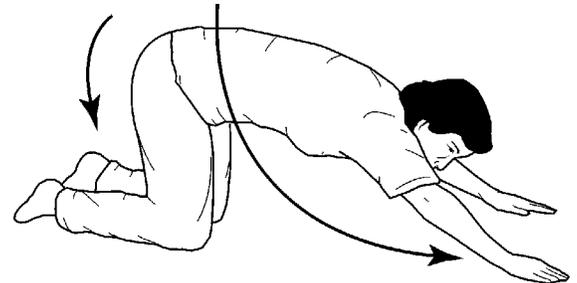
Bridge

Bend your knees and keep your feet flat on the floor. Lift your buttocks slowly up and then slowly return them to the floor.



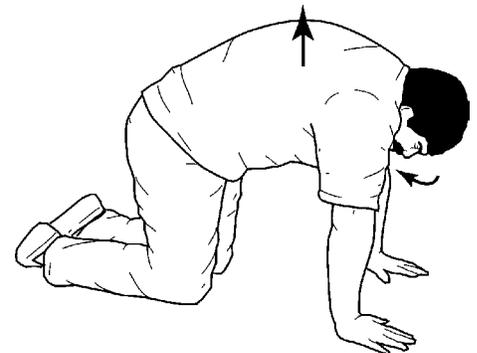
Low Back Stretch

On your hands and knees, push your chest toward the floor, reaching forward as far as you can. Sit back on your feet.



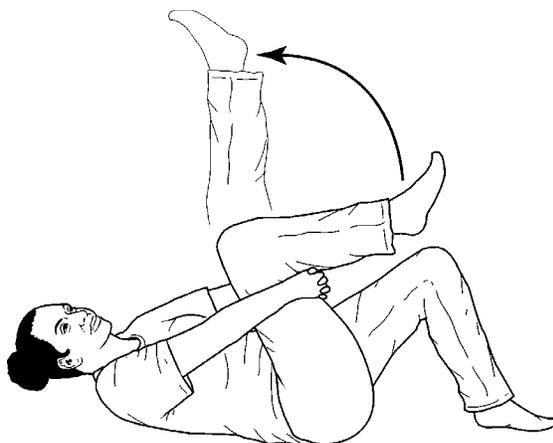
Cat Stretch

Start on your hands and knees. Tuck your chin in toward your chest and tighten your stomach muscles while arching your back.



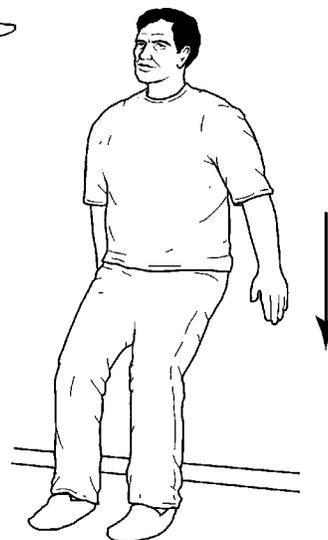
Hamstring stretch

Lie on your back. Bend your hip and knee to 90 degrees. Then straighten your knee as far as possible. Repeat this exercise with the other leg.



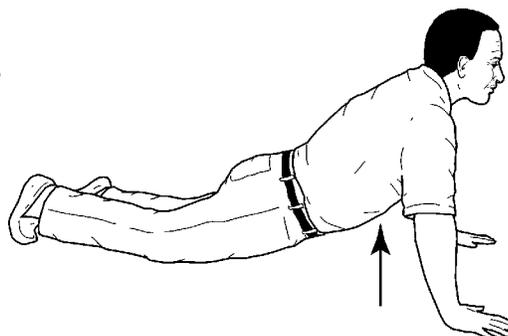
Wall slide

Stand with your back, head and shoulders against a wall and your feet about 12 inches away from the wall. Bend your knees and slowly lower your buttocks while sliding down the wall. Hold for 10 seconds.



Press ups

Lie on your stomach. Push up with your arms while keeping your back and stomach muscles relaxed. Keep a slight bend in your elbows.



Aerobic exercises are also needed to have a healthy back. Aerobic exercises such as walking or swimming should be done 3 to 4 times a week for 30 to 45 minutes. Talk to your doctor before beginning any form of exercise.

Talk to your doctor or health care team if you have any questions about your care.

For more health information, contact the Library for Health Information at **614-293-3707** or e-mail **health-info@osu.edu**.