

Trusted advice for a healthier life

Neck pain: Core exercises can help

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Better support for your spine is key in avoiding neck ache.

If you wake up with an aching neck one morning, it may be hard to believe that the problem didn't start overnight. However, it usually takes many years to develop neck pain.

Your neck, or cervical spine, is made up of the seven smallest vertebrae, and it's subject to the same stress as your backbone. "Our spines take a lot of load. They hold us up all day and take a lot of stress from the activities we do," says Dr. Dana Kotler, instructor in physical medicine at Harvard Medical School. Arthritis, degenerative disc disease, and weakened muscles can degrade the spine. Over time, the wear and tear takes a toll, and we end up with a sore neck.

#### The root cause of neck pain

Your neck's principal job is to support your head, and your head weighs a lot—about 10 to 12 pounds. You can handle the weight well when your head is slightly tilted back—a position that best distributes its weight over the spine. However, the average woman tilts her head forward slightly, which has the effect of putting more weight on the neck. A recent study calculated that flexing your head 15 degrees forward—a common position used to scan a cellphone, for instance—has the effect of magnifying its weight to 27 pounds. Lowering your head farther adds more effective weight. The more weight you put on your neck, the more likely you are to have neck pain.

## How to prevent neck pain

Carrying your head so that it puts the least amount of weight on your neck can help you to avoid aches and pains. Because our anatomies differ, there is a no one ideal head position. However, the following pointers can help prevent neck pain for most people.

**Don't lead with your chin.** Avoid the tendency to thrust your head forward while you're walking or even sitting watching television or conversing.

**Elevate your work level.** Raising your laptop, book, tablet, or cellphone to eye level can alleviate pressure on your spine. Look into getting a reading stand or an adjustable lap desk. If you use a desktop computer, adjust your chair, keyboard, and monitor appropriately.

**Support your lower back.** Your neck doesn't exist in isolation. The force exerted by the effective weight of the head is distributed all the way down along the spine. Therefore, any support given to the lower spine relieves pressure on the neck.

**Take breaks.** When you're engaged in a project that demands your full concentration, it's easy to slip out of your best posture. Set a timer to remind you to get up, walk around, and realign your posture at least once an hour.

**Check your chair.** If you are using the right postures and exercises to decrease your neck pain and you are still suffering, your chair might be the culprit. It might be just a matter of finding a chair that is the right height for your working surface.

### Dealing with neck pain

Generally, mild or moderate neck pain is nothing to worry about, and you may be able to take care of it with a simple stretching exercise: bring your chin in and slowly turn your head from side to side. If your pain is due to muscle strain from overexertion, such as hefting a carry-on bag into an overhead compartment, you may want to try a cold pack and an over-the-counter pain reliever as well.

If you have severe or persistent neck pain, especially if it is associated with pain, weakness, or numbness in an arm, you should visit your doctor. Your physician can determine if your neck pain stems from an underlying condition. Your doctor can also refer you to other clinicians to help you work on your posture, strengthen the muscles that support your spine, and adapt your home or work space to better prevent neck strain.

### Long-term strategies to prevent neck pain

Maintaining your core strength—which depends on the strength of the muscles of your abdomen, back, and buttocks—is important in preventing neck pain. "If your core muscles aren't strong, your neck and shoulder muscles will be overworked," Dr. Kotler says. "Once you strengthen your core muscles, everything falls into line a little better. It has an effect similar to adding a pillow to support your back," she explains.

It's also important to take measures to prevent osteoporosis. Bone loss in the spine can lead to vertebral compression fractures, which promote a stooped posture that contributes to neck pain. Try these strategies:

- Do regular weight-bearing exercise, like walking, dancing, or tai chi.
- Talk to your doctor to see if you should have a bone density test.
- Get 1,200 mg of dietary calcium and 800 to 1,000 IU of vitamin D daily.

## Six core exercises to support your spine and prevent neck pain





### 1. Chair stand

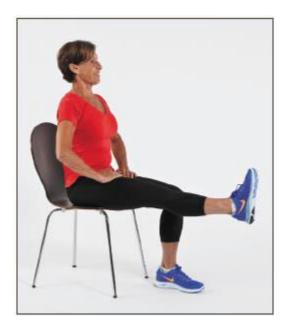
Sit in a chair with your feet hip-width apart.

Place your hands on your thighs.

Tighten your abdominal muscles. Exhale as you slowly stand up.

Slowly sit down.

Repeat 8 to 10 times.



# 2. Single leg raise

Sit straight in a chair with your hands resting on your legs and your feet on the floor.

Exhale as you slowly lift your leg as high as you comfortably can.

Return to starting position.

Repeat 8 to 10 times.

Repeat another 8 to 10 times with the other leg.





## 3. Staggered chair stand

Sit with your feet a few inches apart, your left heel even with the toes of your right foot, and your hands on your thighs.

Tighten your abdominal muscles. Exhale as you slowly stand up.

Slowly sit down.

Repeat 8 to 10 times.

Alternate foot positions and repeat.



#### 4. Heel raise

Stand straight behind the chair, holding the back with your feet hip-width apart and your weight evenly distributed.

Tighten your abdominal muscles.

Lift up on your toes until you're standing on the balls of your feet. (Don't let your ankles roll inward or outward.)

Slowly lower your heels to the floor.

Repeat 8 to 10 times.

(This exercise improves balance and posture to help prevent neck pain.)





## 5. Front plank on table

Stand facing a table with your feet together.

Tighten your abdominal muscles and lower your upper-body weight onto your forearms on the table.

Clasp your hands together and align your shoulders directly over your elbows.

Step back on the balls of your feet until you are balancing your body in a line like a plank. (Don't arch or bend your back.)

Hold for 15 to 60 seconds.





## 6. Standing side leg lift

Stand straight behind a chair, holding the back with your feet together and your weight evenly distributed.

Slowly lift your leg to the side until your foot is about six inches from the floor. (Don't turn your foot out.)

Repeat 8 to 10 times.

Repeat another 8 to 10 times with the other leg.

https://www.health.harvard.edu/pain/neck-pain-coreexercises-can-help