

## Core Exercises to Strengthen the Spine

### Overview

Just as the stays support the mast and the cables support the bridge, your core muscles support your spine. The muscles in your abdomen and back – which we call the “core” – are central to your everyday spine health. They are at the heart of any fitness regimen designed to strengthen a healthy or ailing back. Just as you protect your heart through cardiovascular exercises, you will benefit from strengthening your back through core exercises.

For those who are experiencing difficulties with their back, a gentle, step-by-step strengthening program is an important aspect of recovery and prevention. For those with a healthy back, maintaining or increasing strength in the core muscles is also advisable. Strong core muscles work by taking the stress off the discs and joints. Picture for a moment your bony spine, a long, curving structure consisting of 33 vertebrae from the base of your head to your tailbone. Strong muscles can take some of the stress off that backbone. This is especially important as we age because, as we know, deterioration of the joints is another unfortunate consequence of the aging process.

Patients who have been most successful in maintaining their spine health are those who have incorporated a spine exercise program into their daily routine, right along with bathing, brushing, and flossing.

If you are already performing core exercises regularly, keep it up! If you are not, consult with your primary care physician, a physical therapist, or a trainer at a fitness facility before you begin. The good news about core exercises is that they can be easily done in the comfort of your home without extra equipment or expense. We encourage you to make an effort to develop these new habits, as a strong core will reward you with long-term benefits.



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**Beginner-level crunches.** Lie on your back, bend your knees and hips at a 90-degree angle, and lift your legs into the air. Cross your arms across your chest and lift your head and shoulders off the floor; hold for 5 to 10 seconds.



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**Mid-level crunches.** Place your hands behind your head, with fingers interlocked, and raise your head and shoulders off the floor; hold for 5 to 10 seconds.



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**Advanced-level bicycle crunches.** With your hands behind your head, raise your left leg, knee bent, and point your right elbow toward that leg; alternate.



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**Medicine ball rotation.** While sitting, lift your legs slightly off the floor and cross your feet. Hold a medicine ball, small weight, or food can with both hands and move it from one hip to the other. Start with a small number of rotations, then build up as you gain strength.



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**Plank.** Get down on your hands and knees. Bend your elbows and rest your forearms on the floor. With your toes on the floor, lift up your knees. With your weight balanced on your forearms and toes, count to 10 and then rest. Extend the time and number of repetitions as you gain strength.



### Sit on a Swiss Ball

Sitting on a Swiss ball is one way to train your back. It moves easily requiring you to activate your postural muscles and train your balance. You can improve posture, strengthen and stretch your core muscles, and burn calories. At the computer or reaching for the phone, your muscles react, ultimately improving your sense of balance--on or off the ball!

The Swiss ball is a core stability tool. If you sit in a standard chair, you aren't using your muscles to maintain your balance and posture; you're relaxed. On the ball, those core muscles are constantly working.

The Swiss ball comes in a variety of sizes, and prices vary with quality. Pick the right size for your height. Opt for a non-burst ball.

Tips as you sit on the ball:

- Sit with thighs parallel to the floor
- Stop slouching; use your back, abs, and glutes
- Train your balance
- Increase your time and training with the ball -- gradually

### Sources & links

If you have more questions or would like to schedule an appointment with one of our Spine Center specialists, please call (515) 875-9888.



updated > 1.2012

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