

3 Core Stability Exercises for a Healthy Back

The most common side effect of a weak core is back pain. Many people have back pain, whether it's upper back pain or lower back pain—and this may be partly caused by weak core muscles.

The core is essentially all the muscles from your shoulder joint to your hip joint, or the entire torso. This includes abdominal muscles on the front and sides, the erector muscles of the back and even the larger muscles that span multiple joints like the latissimus and psoas muscles, including the glutes. Since abdominal muscles are the front anchor of the spine, if they are weak, then the other structures supporting the spine (i.e. back muscles) will have to work harder. By developing stronger and more resilient core muscles, injury or strain of the back will be less likely.

The way the core is trained has changed in recent years, largely due to the research of Dr. Stuart McGill. Traditional 'ab' exercises like crunches and sit-ups are being replaced by safer, spine-sparing exercises that do not put extra wear and tear on the spine. The movement of crunching or sit-ups are not meant to be done at high volume due to the stress it puts on the discs of the spine. Crunches and sit-ups also don't work the abdominals in the way these muscles were designed to perform. The main function of the abdominals and the core is to support the spine and prevent it from spinning all the way around, breaking over backward, or flexing to the side. Training should be focused on resisting these movements to create strength and resilience.

The core muscles primarily function to stop or resist motion and should be trained this way, especially

to create a strong and healthy back and body. They work as stabilizers for the entire body. Core-specific exercises train the muscles in your pelvis, lower back, hips and abdomen to work in harmony together to improve stability and strength. Keeping the body's stabilizer muscles strong will help in daily life tasks such as bending, reaching, twisting, lifting and carrying.

Here are three exercises to start building a stable and strong core, that can be done anywhere. All three of these exercises are low risk but highly effective when done correctly. As always, opt for quality over quantity. Aim for perfect reps over many bad reps.



Bird Dog

The bird dog is an anti-extension and anti-rotation exercise that mimics the pattern of crawling, walking or running, which involves opposite arm and leg movement from a stabilized core. This exercise is where core muscles and hips work in harmony via the integration of shoulder flexion and hip extension.

Proper execution can produce a variety of benefits, including improvements in core musculature innervation, rotary stability, spinal alignment, reduced low-back pain, postural control, shoulder stability, hip alignment, shoulder mobility and spinal stabilization.

The Exercise

Start with 5 controlled reps per side; progressing to 10 reps per side, for 2-3 sets.



Start in an all fours position, with hands under shoulders and knees under your hips, create a neutral spine (flat back) and neutral neck (look at the floor). The goal is to resist rotation and extension forces that attempt to destabilize your spine. Raise your opposite arm and leg straight out, keeping your abdominals braced, and your whole body in one straight line from head to foot.

Dead Bug

The dead bug is an anti-extension exercise that teaches how to isolate movement at the hips and shoulders without movement in the spine. Improving this movement pattern is important, because it protects the spine from movement it was not designed to handle without putting strain on the lower back. It is a low risk exercise that everyone

can do with an ongoing list of benefits including, increasing core strength, balancing out imbalances between the left and right sides, and preventing back injuries that are a result of a weak core and lack of spinal stability.

The Exercise

Start with 5 controlled reps per side; progressing to 10 reps per side, for 2-3 sets.



Lie on your back with your arms extended in front of your shoulders. Bend your hips and knees to a 90 degree angle. Focus on pushing your back into the floor, bracing your abs, and slowly extend your left leg toward the floor while extending your right arm overhead. Do not let your back arch. Only extend the arm and leg as far as you can keep your back down. Bring arm and leg back to starting position, and do the other side.

Side Bridge

The side bridge, or side plank, exercise is an anti-lateral flexion exercise, where you have to resist the forces of gravity and hold your hips up, based on the same philosophy as traditional planks, which is to prevent movement of your spine. As stated above, this is how your core is designed to function. Rather than working your obliques, or side abdominals, by bending laterally with traditional side bends, while doing the side bridge muscles

isometrically contract to prevent the spine from bending sideways. This exercise activates the lateral obliques and quadratus lumborum muscles on only one side of the body, making it an excellent choice for addressing weak links in stability with minimal force to the spine. It also engages an important stabilizer of the hip/pelvis on the lateral hip - the glute medius.

The Exercise

Hold for 10-30 seconds per side, for 3 sets.



Lie on your side and prop yourself up on your elbow. Ensure that your elbow is directly under your shoulder to avoid any unnecessary strain on the shoulder joint. With your legs straight, place your top foot on the ground in front of your bottom foot. Place your top hand on your bottom shoulder. Be sure that your upper body isn't twisted or leaning forward, brace your abdomen, squeeze through your gluteals (clench your bum), and lift your hips up off the ground. If doing it from the feet is too difficult, drop to your knees and perform from your knees, still keeping your hips up and spine neutral.

If you work on all three or even one of these exercises a few times a week, to reap the rewards of a strong and resilient core, and back!