

Cleveland Clinic

Why a Strong Core is Your Best Guard against Back Pain

A physical therapist answers your questions

If you suffer from back pain, you've probably heard that strengthening your core can bring you some relief. But is this always true? And if so, how do you do it? We spoke with Cleveland Clinic physical therapist Patti Mariano, DPT, to find out.

Q: What is your core?

When most people think about the core of the body they think of the abdominal or six-pack area just below the ribs. While the abdominal muscles are an important part of the core, we consider other areas important, too.

Your core includes:

Front abdominal muscles — the rectus abdominis

Muscles along the side of your body — the internal and external obliques

A deep muscle that wraps around the front — the transverse abdominis

Muscles in your back that are located between your spine bones and run along your spine — the erector spinae and multifidi

Your core also includes the diaphragm and muscles of the pelvic floor. I also consider the gluteal muscles as core muscles.

Q: What is the relationship between core strength and back pain?

Theoretically, if your muscles around the low back are weak, your body will rely more on passive structures, including ligaments — the tissue that connects bone to bone — as well as the spinal bones or discs, which lie between the spinal bones, for stability, which can cause pain.

But some studies have shown that specific core exercises are not any more beneficial than general exercise for low back pain. What we know is that exercise in general can help, and focusing on core muscles may provide some additional benefit.

Q: What are some exercises for the core that can help with back pain?

Here are my top five:

Side plank — Sit on the floor with your right hand below your right shoulder and feet stacked. Lift your body, keeping your legs long, abdominals engaged and feet stacked. Hold. Repeat on the other side. You can modify this pose by dropping your bottom knee to the floor for extra support.

Plank — Kneel on all fours. Pull in your abdomen and step your feet behind you until your legs are straight. Keep your hands directly under your shoulders and your neck straight. Hold your abdomen and legs tight and avoid letting your lower back sag. Hold and breathe for 30 seconds. You can modify this pose by lowering your knees.

Bird dog — Kneel on all fours. Reach one arm out in front of you, draw in your abdomen, and extend the opposite leg long behind you. Repeat on the other side.

Scissors — Lie on your back with your arms at your sides and legs pointed straight into the air above your hips. Press your lower back into the mat and tighten your abdomen. Lower your right leg until it's a few inches from the floor. Raise your right leg up and begin lowering your left leg the same way. Continue switching right and left.

Upward dog — Lie face down with head slightly lifted and hands palm-down under your shoulders. Point your toes. Exhale, then press through your hands and the tops of your feet and raise your body and legs up until your arms are straight and your body and legs are off the ground. Keep your neck relaxed and long and thigh muscles tight as you hold and breathe.

For the plank exercises, start by holding them for 15 seconds to 30 seconds. For bird dog and scissors, try three sets of eight or 10 repetitions. For upward dog, do one set of 10 repetitions.

Q: Can you injure your back by trying to strengthen your core?

Any exercise performed incorrectly, whether it is core-strengthening or otherwise, has the potential to cause discomfort.

Twisting exercises or even incorrectly completing the exercises cited above can cause pain in the low back. But it's highly unlikely that one repetition of an exercise will seriously harm your body, unless it's an exercise using a very heavy weight.

The best way to keep your body safe is to listen to body cues such as pain during and immediately after an exercise, and the next day after exercising.

Q: When should you talk to a doctor about your back pain?

If any of the following is going on you should consult with your doctor:

Your pain has been going on for longer than a month, despite resting from activities that make it worse.

Your pain is getting worse.

Your pain wakes you from sleep.

Your pain is in your low back but also is going down one or both of your legs.

You notice that one leg is becoming weaker than the other.

Q: Where should you turn if you want help in creating a plan to address back pain?

Physical therapists train as musculoskeletal experts — they are the experts on muscles, bones and human movement. These professionals are the most qualified, aside from an orthopedic doctor, to assess back problems.

Since there are many factors that impact low back pain and many types of low back pain, it is a good idea to visit at least one time with a physical therapist for an evaluation and subsequent plan of care. This will give you an individually tailored plan with exercises that progress safely.

The idea of core strengthening, while beneficial, is just one piece of the low back pain puzzle.

<https://health.clevelandclinic.org/strong-core-best-guard-back-pain/>