



# Core & Functional Exercise

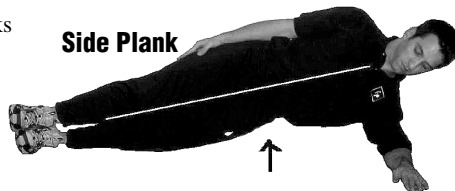
**Y**ou walk into a gym and you here someone talk about the “core” exercise they just learned from their friend. The other guy near the rack of over-sized inflatable balls talks about doing “functional” exercise on the ball. What are they talking about? Many who are doing these exercises don’t even know and they are missing the point....

“Core” is one of the most overused and misunderstood terms in health and fitness today. “Functional training” is another misused term. By definition the word core means: the central or innermost part of anything or the most important part of something. These two definitions do help explain what is the “core of the body.” The word functional means performing or able to perform a function, or useful. If you put the terms together, a good definition for “core” or “functional” training may be: useful exercise for the center of the body allowing this most important part to perform its function properly. This is a good working definition and the true essence of “core” training. In other words—train it for how you use it.

So what muscles comprise the “core?” The major muscles from the shoulders to the buttocks on all sides of the body. Specifically the muscles include: diaphragm, abdominals, Latissimus dorsi, gluteals, iliopsoas, paravertebral muscles in lumbar and thoracic spine, and trapezius. Together in a coordinated sequence of contractions these “core” muscles help stabilize the hips and trunk leading to better posture and a more stable base for which our arms and legs can work. A strong “core” will also help transfer energy from your upper and lower body without losing energy through extraneous movements in the hips and trunk. A basic example of this is the arm swing during running. As your right arm and left leg are swinging forward during your running stride, this puts a stretch through your latissimus dorsi, glutes, and low back. This stretch increases the tension in this area allowing for more stability in the trunk and more power (as that arm and leg swing back toward the ground). So



**Plank**



**Side Plank**

**Squat-Row**

this means that strong lats and a good arm swing will enhance your running by maintaining good posture and providing more powerful extension of the leg through assisting your gluteals.

So now that you know a little about what it is and why the “core” is so important, let’s show you how to train it “functionally.” We will go through a few basic “core” exercises to help you initiate a well-rounded strength routine, but before we do, you need to understand the most basic of “core” exercises...breathing.

Breathing from your diaphragm is essential to a well functioning “core” and the foundation on which all “core” exercises should be built. It is the initiating force to all successive muscle contractions. To do this, close your lips and put your tongue on the roof of your mouth. Inhale through your nose and fill your belly with air, ensure the air is filling your belly and not your chest. Now, exhale through your mouth and assist the exhalation by tightening and drawing in your belly (as if you were buttoning a tight pair of pants). Your belly may flatten and you should feel your abdominals and lower back contracting. This takes very little effort, about three to five pounds of force. Work on this as often as you can throughout each day; lying in bed, sitting in traffic, waiting in line at Starbucks. Repetition is paramount to retrain and improve endurance, thereby maximizing proper functioning in running. After you master this, incorporate it not only into the following exercises but while you run as well.

The harder the activity the more force you may need in the “drawing in” contraction.

The second exercise is **The Plank**: Start by lying on your stomach up on your elbows. Using your abdominals, lift your body to form a

straight “plank.” Draw in your abdominals and slightly tilt your pelvis back to ensure no strain onto your spine. If you have a weak upper body you can start the exercise by keeping your knees on the ground. Your goal is to hold this position for 10 seconds and repeat 10 times.

The third exercise is **The Side Plank**: Start by lying on your side up on your elbow with your body in a straight line. Lift your body up toward the ceiling as though someone was lifting you from your belt line. Hold this position for 5-seconds and try to repeat it 10 times on each side. Beginners can start by bending knees to 90 degrees.

The fourth exercise is the **Marching Bridge**: Start this lying on your back with knees bent and feet flat on the ground. Lift your hips off the ground with your abdominals engaged to ensure you do not arch your back. Now try to lift your right foot off the ground 2-inches. Do this without letting your hips rotate or drop to the floor and without arching your back. Repeat this on both sides up to 10 times.

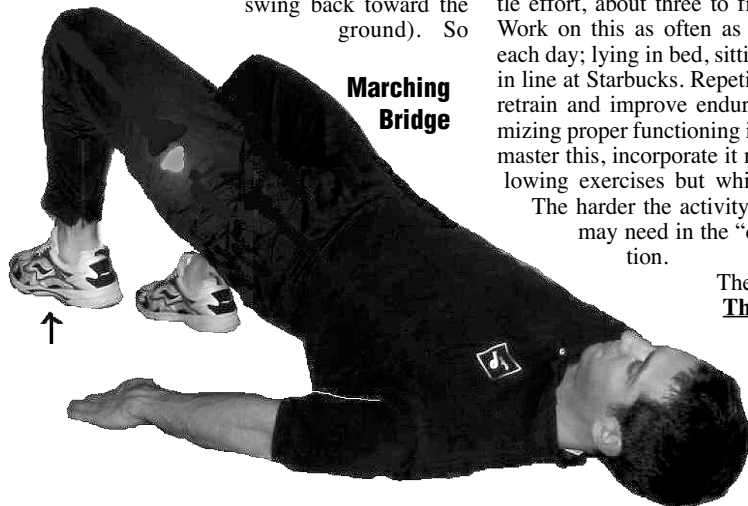
Finally, lets get you off the ground and use the upper and lower body together.

**The Squat-Row** is the next exercise. This exercise forces your core to engage while you are using upper and lower extremities at the same time. Start standing while holding on to cables or an elastic exercise band attached in front of you. Squat down while reaching forward with your hands. As you rise up from the squat, pull the handles toward you by squeezing your shoulder blades together and pulling your elbows to the side of your body. Repeat this 10-20 times and perform two sets.

If you have any doubt about the proper performance of these exercises, seek the help of a professional. Performing an exercise with poor form can be worse than not doing it at all. With the proper training for your core, you can strengthen muscles, lessen pain, improve performance, and improve posture. **NR**

—With an able assist from **Carla Silva, MS, PT**

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**Marching Bridge**