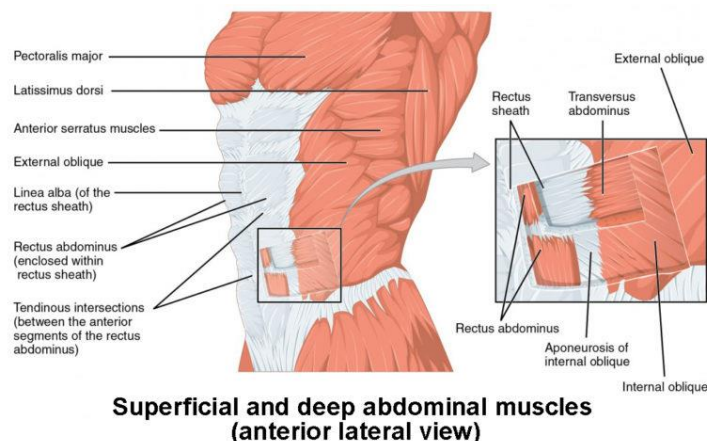


## **Tool #16 How a Weak Core Causes Lower Back Pain**

All these muscles attach to the fascia in your back (tighten it and protect it): External Obliques, Internal Obliques, and Transversus Abdominus. (Natural back corset or belt)



The muscle fibers of the external obliques run diagonally downward and inward from the lower ribs to the [pelvis](#), forming the letter V. You can locate them by putting your hands in your coat pockets. The internal oblique muscles are a pair of deep muscles that are just below the external obliques. The internal and external obliques are at right angles to each other.

The deepest layer of abdominal muscles is called the "transversus abdominis" or TVA. The TVA muscle wraps around the torso from front to back and from the ribs to the pelvis. Its muscle fibers run horizontally, similar to a corset or a weight belt.

Dr. Stuart McGill world-renowned in the field of back pain recommends a form of these three exercises to strengthen your core.

- Curl up. Place both hands under your low back providing some support. With them in place raise the elbows off the floor and simultaneously lift your head and shoulders straight toward the ceiling. You don't really curl up much. Hold for 10 sec. Repeat 6 times. Over time you may increase to 10 times.



- Side plank on knees. Or side bridge on knees. Lift and hold for a count of 10. Repeat 6 times. Over time you may increase to 10 times. Repeat on the other side.



- Bird Dog. Directly strengthen muscles of the back. Start on all fours. For beginners start with raising one arm for a count of 10. Repeat with the other arm. Then raise one leg for a count of 10. Repeat with the other side. Repeat the entire cycle 10 times. Advanced lift right arm and left leg at the same time for a count of 10. Repeat with left arm and right leg at the same time for a count of 10. Repeat cycle 10 times.

