

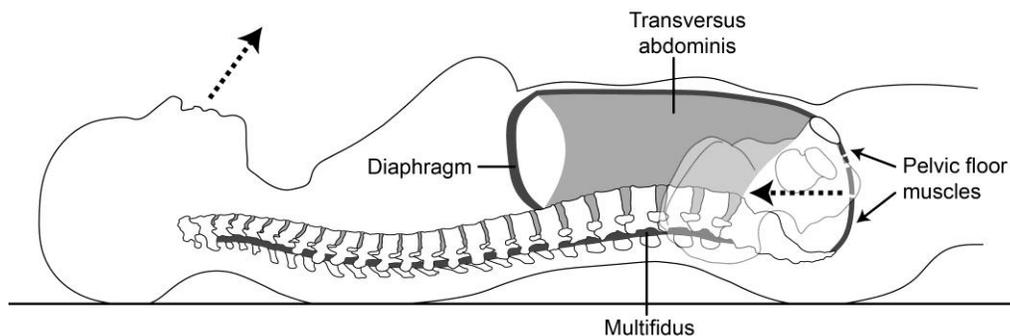
The Core Brace Training

FINDING THE CORE BRACE MUSCLES

Four inner core muscles form a muscle team that works to brace the trunk, also commonly called the core. These muscles surround the important organs and the spine like a canister, supporting the trunk from the front, back, top and bottom.

- The bottom of the canister is composed of the **pelvic floor muscles**. These muscles are primarily responsible for supporting your spine and your organs, controlling your bladder and your bowels, and contributing to sexual appreciation. In a woman, there are three openings in the muscles at the bottom of the pelvis. Contracting the pelvic floor muscles is commonly called a Kegel exercise.
- The front of the canister consists of the deepest abdominal muscles, the **transversus abdominis**, which wrap from side to side around the abdomen like a supportive belt or girdle. When contracted, these muscles tense and flatten the lower and sidewall region of the belly, narrowing your waistline.
- The deep back muscles, the **multifidi**, are the innermost back muscles. They are positioned to support the spine and pelvis. These muscles act like the lacing on the back of a corset. When contracted, these muscles create tension to support the front and back of the trunk.
- The top of the canister is the breathing muscle, or **diaphragm**. Using the diaphragm to control breathing affects the pressure of the canister. Coordination of breathing is important with exercise and daily activities.

The Core Brace Muscles in the Lying Down Position



© 2014 Kathe Wallace, PT

Positioning: The goal is to activate the muscles in a balanced position, not too arched and not too tucked. This is called the “neutral position” or “neutral spine.” To keep this position, imagine there is a cherry-sized ball under your low back when you activate the core brace.

CORE BRACE ACTIVATION STEPS

Doing these five steps with less than an all-out effort and proper positioning creates a complete core brace exercise. The step order of activation may vary if your therapist identifies one of the muscles that needs more awareness.

1. Take a breath in, emphasizing the expansion of your rib cage, and focus on your pelvic floor muscles at the base of your pelvis.
2. As you exhale or blow out, contract the pelvic floor, imagining you are slowly shutting off the urine flow, partially holding back gas, and closing the vagina. This contraction creates tension around your bladder, anus and vagina. Contract gradually and slowly, like you are turning down a dimmer switch, using less than your maximum effort to close the openings and gently lift them. Keep breathing into your rib cage.
3. While you hold the pelvic floor tension, add in a contraction of your lower belly muscles (**transversus abdominis**) without moving your back or pelvis. Do this by imagining that a seat belt is wrapped firmly around your lower belly and is flattening or hollowing the belly wall. The transversus abdominis muscle will create a tension low and deep in the abdominal wall.
4. Finally, engage the deep back muscles (**multifidi**) by tensing the muscles next to your spine. Find them by thinking of the muscles that create a slight arch in your low back. Image a zipper running from the tailbone and pelvis up to the rib cage. This will create support to the canister from the back.
5. Continue breathing into your rib cage while holding the contraction in the pelvic floor, transversus and multifidi muscles so you still feel tension below your belly button.

YOUR SPECIFIC HOME PROGRAM

- Continue to breathe while you maintain the low level contraction repetitions described above. Send the air into the sides of your ribs more than into the belly.
- It takes practice, concentration and focus on the muscles to time and sequence the effort of your core from the inside. You must train the muscles to activate before you strengthen them.

Activation Plan

- Start by activating and holding the core brace for 5 seconds.
- Work up to 10 seconds.
- Repeat the bracing sequence 5 times in a row.
- Start in the lying down position and progress to sitting and standing.

See a physical therapist to help you determine the right movement and exercise progression.