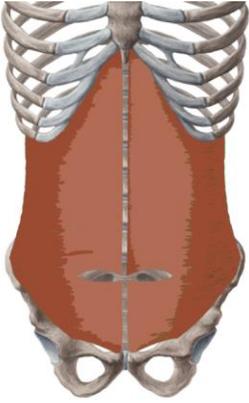


## Transverse Abdominals



The Transverse Abdominis (or TVA) literally looks and acts like a corset. It wraps horizontally all around the torso and spans across the space between the ribs and the hips. Its function is in fact to compress the abdominal wall (hug your waist) to support your internal organs and lumbar spine as you bend, twist, lift and move through life. The body's natural corset helps the back and the deep spinal muscles do their job of keeping you upright. A strong Transverse Abdominis will help your deep spinal muscles maintain the spaces between each vertebrae, supporting elongation of the spine and helping you stand taller. As one of the main core stabilizing muscles of the lumbar spine, the TVA helps keep the load from the rest of the body and gravity off the low back. A weak Transverse Abdominis is often indicated in lower back pain and compression of the spine.

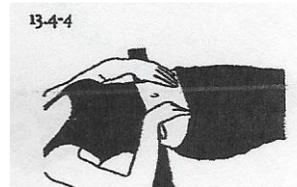
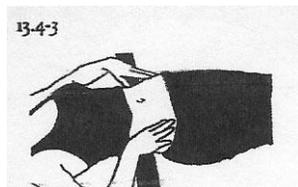
## Transverse Abdominals Exercises

The item you choose to put under your low back for the following exercises should be at least 1 inch thick with a little bit of resistance. If you are using a pool noodle, it should be cut in half **lengthwise** (half dome).

1. Lie on your back with the rubber strip/pool noodle lightly touching your low back. Position the rubber strip/pool noodle horizontally under your lower back; your back should touch the strip/pool noodle lightly, just above your pelvis, even when you move your lower ribs toward your abdomen.
2. Feel your hip bones with your fingertips (Figure 13.4-3). Push your thumbs firmly against the outsides of your hip bones, and push your fingertips as deep as possible into your abdomen (Figure 13.4-4). Keep your abdomen totally passive during this movement.
3. To activate your transverse abdominals, pull the area of your lower abdomen, 1 inch under your navel, up toward your navel. When you do this, your transverse abdominals push your fingers out of your abdomen.

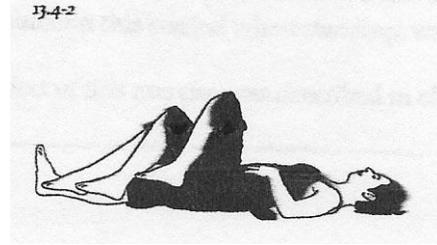
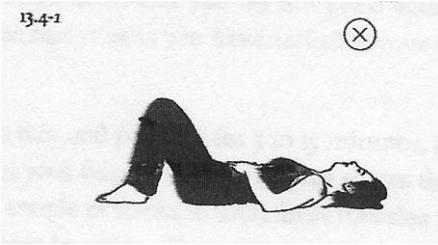
**Note: Make sure that you do not push your lower back into the rubber strip/pool noodle, because this means you have activated your abdominals.**

4. Stay in this end position for 5 to 15 minutes, and keep breathing into your abdomen without your fingers sinking in (this shows the muscles are relaxed).
5. Take a couple of weeks to train these muscles while supine (on your back) so that you begin to recognize them in action. Then you can practice this exercise in a seated pose. Finally, you will maintain this control when standing, walking, and practicing your exercises.



# Abdominal Exercises

Do the following exercises carefully in the following two phases, which move from easy to difficult, making it possible for you to build up strength safely.



## Instructions – Phase 1

1. Lie on your yoga mat/floor with your knees bent and your arms stretched out on the floor above your head. Position the rubber strip horizontally under your lower back; your back should touch the strip/pool noodle lightly, just above your pelvis, even when you move your lower ribs toward your abdomen. This contact is constant during this exercise; pressure should not increase or decrease when you lift your legs. Place your hands on your abdomen and feel that the muscles are relaxed.
2. Extend your right leg upward, keeping your knee bent. Straighten it only if you can do so without increasing the pressure of your back on the strip/pool noodle. When you lower your right leg, straighten your knee and end with your right heel 1 inch above the floor. Allow your left foot to become lighter on the floor as if you were going to lift it. Press your tailbone firmly into the floor so that your abdominal muscles contract strongly. Note that your abdominal muscles move upward to form a column between your pubic bone and diaphragm. If you push your fingers against your stomach, it will feel firm, like an inner tube that has been correctly inflated, but not so hard that it cannot move. Keep the contact pressure of the strip/pool noodle on your lower back constant.
3. Breathe into your abdomen and observe if tension arises in your shoulders and neck. This can be a consequence of this exercise; the strength of your abdominals shifts the bend of your upper back into your shoulders and neck (Figure 13.4-1). The tension in your neck and shoulders will lessen when your upper back straightens.
4. This is the easiest part of this exercise and can be done by everyone. Remain in the end position for a few breaths. Bend your right leg and return. Repeat on the other side. Keep repeating until you tire, or move into the next phase.

## Phase 2

1. From the end position in phase 1, you can increase the intensity of this exercise depending on your ability.
  - a) When you have straightened your right leg with your heel 1 inch above the floor, lift your left foot  $\frac{1}{2}$  inch off the floor, and push the inside of your foot against the inside of your right thigh. Remain here for two or three breaths, keeping the pressure from the rubber strip/pool noodle constant on your lower back. Feel how breathing into your stomach does not weaken your abdominals.
  - b) From this position, you can slowly start to extend your left leg, sliding your foot along the inside of your right leg (Figure 13.4-2). Choose a position in which your lower back still touches the strip/pool noodle and where you can remain for a few breaths.
  - c) Ultimately, you will be able to stretch your left leg completely, keeping both heels 1 inch above the floor. Repeat the movement on the other side.
  - d) When you can complete this phase with ease, you can move both legs together (bent or straight, depending on the length of your hamstrings).

This exercise gives you insight into the strength of your abdominal muscles in relation to the position of your lower back. It helps you to recognize the neutral position of your inner tube. You strengthen not only your abdominals but also your leg muscles and (if you feel an intense extension in your lower back) your lower back muscles. The slow build up with one leg is especially good if tension develops in your groin when you lift both legs together.