

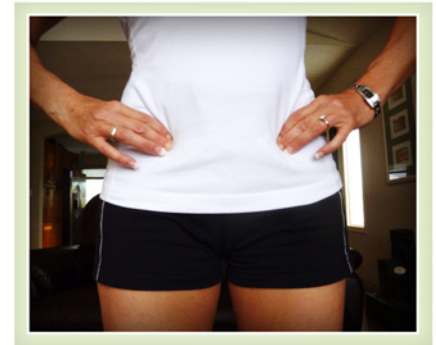
Many of us take our backs for granted. Often a simple lift, twist, or turn can lead to a debilitating back injury that may require months of recovery. Learning to engage your core will help protect the back and support the pelvis in daily activities as well as during weight bearing exercises.

The "core", also known as the **powerhouse** of the body, allows smooth contractions and movements of the arms, legs and back. This contraction of the abdominals is not one people do consciously and takes time to perfect! Different visualizing techniques are used to contract the core muscles but my favourite is described below.

## Finding your Transversus Abdominus:

In order to know if you are contracting the correct muscles, it is necessary to be able to feel them working. Place your middle fingers tips on the bony parts at the front of your hips. These are known as your anterior superior iliac spines (asis). Move your fingers in an inch towards your belly button and down and inch towards your toes. You should now be directly over the transversus abdominus muscle. Press deeply and cough.

With the proper contraction you will feel a tension in your fingertips as the abdominal wall narrows. You should feel the muscle palpitate under your fingertips. Keep your hands in this position and try the technique described below to familiarize yourself with this contraction.



## Engaging your Core:

Take a deep breath in and then, *while exhaling*, gently pull your abdominals in. All the core muscles co-contract when you feel your transversus contract. If you have contracted your core correctly, you should feel a gentle tightening under your finger tips. If you feel a 'bulge' you are contracting too much. The correct level of activity in core muscles should be 30% of their maximum so that they have enough energy to contract continuously. If you contract improperly, you will contract the larger muscles surrounding the core. It is common for beginners to hold their breath as they focus on contracting the core. Try and breath while tightening your core muscles. **This takes PRACTICE but is extremely important to get right in the early stages. Try practicing this while waiting at a stop light, washing the dishes, etc.**



### Visualization Tips:



When exhaling, focus on 'drawing up' from the pelvic floor. Imagine that you wish to stop urinating (lifting the pelvic floor). Use your navel to gently draw your belly into your spine. Think of narrowing your waist, not just flattening it. Connecting the navel to the spine protects the spine and hollows the belly by activating the deep abdominal muscles.