

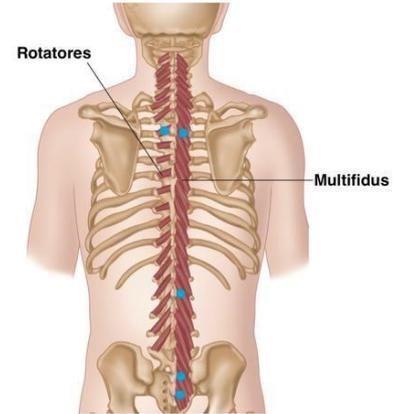
# Spinal Health and Core Strength

## Why it is important

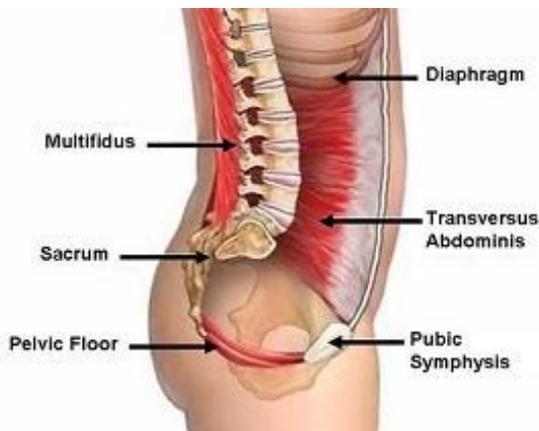
Core strength is the buzz phrase at the moment, but what is your core strength and how do you know if you have it?

Your core muscles are made up of 4 main areas that all work together to provide support for your spine and, when efficient and effective, will help improve your mobility and performance.

Posteriorly, there are 3 main layers of muscle: superficial, intermediate and deep. The deep layer has several muscles in it; the ones we are primarily interested in are called the **multifidus**. They sit directly behind the facet joints and are inter segmental muscles which means they go from one level to the next in the low back. They overlap each other similar to tiles on a roof, meaning they can work together as one functional unit and, when you can control them, allow movement on an individual level. When they contract they provide support and strength to the low back. Interestingly, they also add to the proprioceptive feedback - this is where the sensory nerves in the muscles tell the brain where the spine is and what it is doing.



The deep layer of the abdominal muscle is called the **transverse abdominus**. This attaches to the deep low back muscle (the multifidi) through the thoracolumbar fascia - a band of tough non contractile tissue. This creates a muscular corset that surrounds the low back and abdomen. In reality, the deep stomach muscles work with the other 3 muscles on the abdominal wall. Knowing when and how to contract them can significantly improve how your core strength works.



At the inferior or lower part we have the **pelvic floor** muscle which, when contracted, helps improve the overall stability of the core and also helps with incontinence issues.

On the superior or upper aspect we have the **diaphragm**. This obviously needs to keep moving as it is the main muscle to initiate our breathing. Controlling our breathing and maintaining our core strength can be tricky but will come with time.

Contracting these muscles at the same time and modulating the level of contraction is what provides our core. They are stabilising muscles so the mistake we often see is people trying to contract them as hard as they can. This is not what we aim for! We want to contract them as much as is necessary!

For example, if you hold your hand out in front of you, you have to stabilise at the shoulder. If you put a weight in your hand, you require more stabilisation at the shoulder but modulate this to the required amount.

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The same is true with your core. If you're stood holding a box, you need to support your back but the level of support required is greater when you lift the box.

Once people have established how to contract their core muscles, the instructors at the Studio will progress you quickly onto dynamic exercises. This is where we intentionally make it less stable or add a movement so that you learn to balance through the core muscles.

When rehabbing a condition, getting knowledgeable guided home exercises or joining a class with a good instructor is advisable.



(examples of Flexicore exercises that produce an unstable base to encourage the core to work to stabilise the body)

Our **Flexicore** classes, lead by our chiropractors, focus on injury prevention and are a great compliment to the treatment received in the clinic. Flexicore encourages you to learn how to move in a way that compliments your body, with a focus on good form and control in movement, using body weight to develop your core strength, balance and flexibility. The beginners class starts at a very basic level with a gentle introduction. In the intermediate and advanced classes, exercises can be progressed quickly to challenge any individual. These can be accompanied by a free consultation with one of our chiropractors if necessary to address any specific issues or worries you may have before attending a class.

Enjoy your core workouts! If it hurts stop and consult someone.