

Back Exercises

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Lower Abdominals (TA) in Lying

This is an introductory exercise to teach you how to activate your abdominal ‘inner core’, as well as how to find your neutral spine position. You should practice this regularly for several days, and then your physio will progress you on to more ‘functional exercises’.

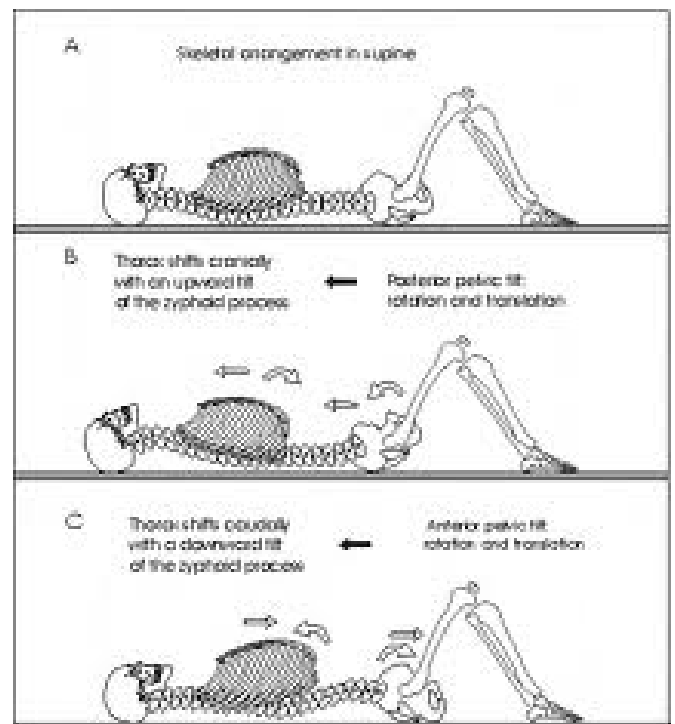
Neutral Spine Exercise

Lie on your back with your knees comfortably bent and your feet flat on the surface (carpet or firm bed). It is OK to have a pillow under your head. Draw your stomach muscles in with mild to moderate force, so that your pelvis tilts back and your low back flattens (diagram B). Feel that you are drawing in as low down in your stomach as you can. Now relax, and push your tail bone into the floor, until your pelvis tilts forward and your back arches (diagram C). Go as far as you can, without letting the arch go past your lower ribs.

Repeat this whole procedure a few times, and get a feel for how your pelvis moves, and how far your back flattens and arches.

Now flatten your back again like you did at the start. From this position, move again toward arching your back, but stop at the approximate half way point. This is an arbitrary position, somewhere between the extremes of fully flat and fully arched. There should be no discomfort. This is your *neutral spine position* (diagram A above). You are now ready to activate your core muscles.

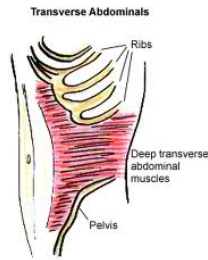
See the next page for explanation of Lower Abdominal Exercise...



(Once you understand the idea of locating your neutral spine, you don't have to go through this whole process. You can quickly get into the right position.)

Lower Abdominal Activation

There are many different cues to help you activate your deep abdominals (*transversus abdominis*, or TA). Firstly, place your index fingers on the outside top of your pelvic bones. Then move them in 1 inch (3cm), and down 1 inch. Press reasonably firmly down into your stomach, so you can feel the muscles below your fingers. When they contract, all you should feel is a gentle increase in tension. The muscles should not press up against your fingers.



Here are a few cues, all designed to achieve the same goal – to gently activate your TA without turning on all the other abdominals. When you activate it, hold for 10 seconds, relax for 3 seconds, and repeat 10 times.

Cues:

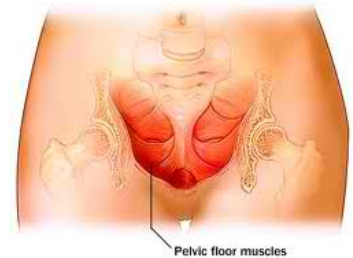
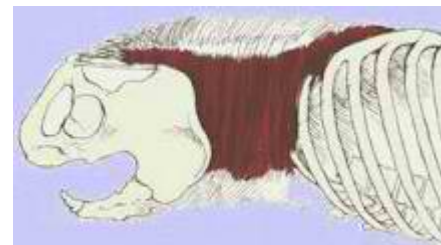
1. Think of the lowest point in your ab's, just above the pubic bone. With 5% to 10% effort, draw this point in toward your spine. It may help to think of hollowing your stomach muscles slightly.
2. Think of the outside part of the pelvic bones you felt above. Try to draw them towards each other, but only by approx. 1mm.
3. Think of tightening your *anterior pelvic floor*. These are the muscles you use when your bladder is full & you have to hang on. Draw them upwards & toward the spine with 5% to 10% effort.
4. If your physio had you doing TA training using real-time ultrasound, activate while imagining you are seeing the muscle contracting on the screen.

Use whichever cue you feel works best for you. When you get used to doing this exercise, start to do it several times-a-day. You can do it sitting at work or in the car, lying in bed, and in front of the TV. When you get really good at it, you can do it standing and walking.

Important points:

- Tighten the TA with minimal effort. Only a slight contraction is needed to give support to the spine and pelvis. Be 'aware' of the contraction, but you shouldn't feel tension in the muscle.
- Don't continue the exercise if it is causing low back pain – speak to your physio.

If you would like a printable copy of this exercise, please email us at: info@cssphysio.com.au



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