

Back Strengthening Guide

USING THIS EXERCISE PROGRAM

The following are general exercises which have been shown to improve your core muscles, if you have any problems with them please seek the help of a therapist. Multiple levels are shown; start at a low level. All exercises should be done in an acutely pain-free range.

Abdominal Bracing

- Stand upright with normal posture
- Breathing normally, tighten your abdominal muscles and draw your belly button towards your spine
- Hold for a count of 3 then relax
- Do 25-50 repetitions per day



Tip: Identify 'triggers' during your day to do this exercise; such as while brushing your teeth, or while driving / travelling when you stop at a red traffic light.

The following exercises are taken from www.kspine.net

The Neutral Spine Position

The first thing to do is to identify the neutral spine position. This is a position where the spine is pain free and not under any strain. All the exercises you do should be done while keeping the spine in this neutral position. This position may vary for each individual, depending on the pathology.

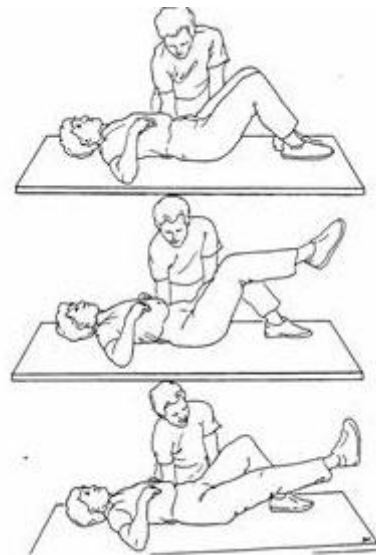
Lie on your back, with your knees bent.

Get a friend to put their hand under your back. Gently press this hand against the couch.

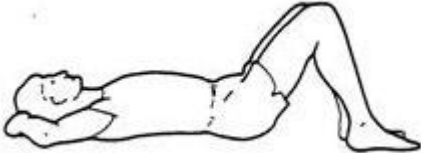




Now, while maintaining this gentle push against the couch, lift one leg up. You will find your back arches away from the hand. You have moved away from the neutral spine position.

Try again. Once you have mastered this go through the following steps:

1. Raise one foot
2. Raise the other foot
3. Raise one arm
4. Raise the other arm
5. Raise one leg
6. Raise the other leg
7. These can also be performed using weights



Another way of achieving the "neutral" spine position is to tighten the muscle between your tummy button & the top of your pubic bone. You will probably find that you held your breath whilst performing this! Practice tightening & breathing normally, it may help to recite a nursery rhyme or count as then you have to breathe normally.

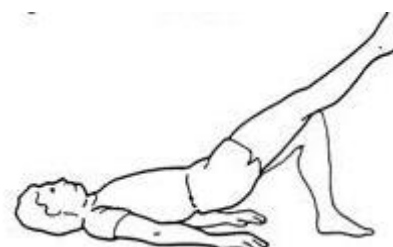
	Hold the spine in the pain-free neutral position. Count to 10 and relax. Abduct the hands to under the head. Brace the abdominal muscles to a count of 10 and relax. Repeat x 3.
	Alternatively flex and extend the fully straight arms, maintaining the neutral position. Count to 10. Relax. Repeat x 3.
	Tighten trunk muscles in neutral position. Bend one hip and knee to 90 degrees. Hold to 10. Repeat with other leg x 10. Repeat x 3.
	Combine above 2 manoeuvres with alternate arm extensions and hip flexion. Left arm – right leg, then right arm – left leg. Maintain tight neutral position. Repeat x 3.
	Shoulder flexion with alternate lower extremity extension. Count to 10. Repeat x 3. Repeat with alternate leg extension without putting a leg onto the ground. Repeat x 3. Maintain neutral position.

Bridging exercises

The bridging exercises strengthen primarily the gluteal, quadriceps and hamstring muscles. You must attempt to lift the buttocks off the floor, hinging at the hip joint, whilst trying to make a straight line from the shoulders to the knees.

Level 1: Raise the hips one-inch off the floor and maintain the neutral pain free position for a count of 10. Then raise the hips further off the floor to the maximum height comfortably possible, whilst maintaining the neutral position. Hold to a count of 10 and then return. This is not a back arching exercise. Repeat 2 x 10.

Level 2: Repeat the above. 2 x 20



Level 3: Raise the hips 3 inches off the floor and hold. Extend one leg while maintaining the back in the neutral position. Hold for a count of 10. Place the foot on the floor and relax. Repeat with the other leg 1 x 20.

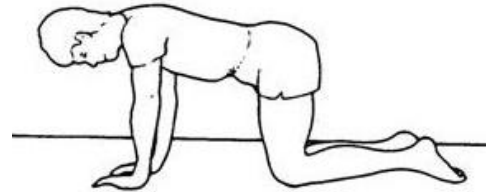
Level 4: Repeat above 2 x 20 Level 5: Repeat above 3 x 20.

Quadruped exercises

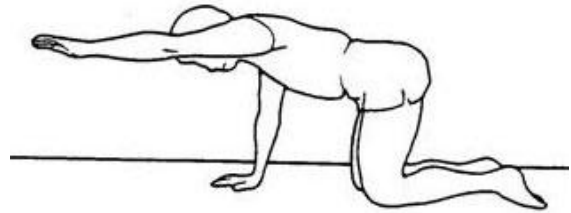
These exercises help in trunk control. You need to learn to hold the back in this position with the trunk muscles tight.

Level 1:

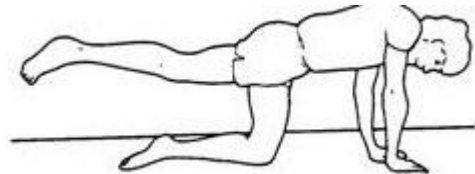
In the all fours position with the knees and hands on the floor, tighten the trunk musculature and hold the spine in the neutral, pain free position and relax.



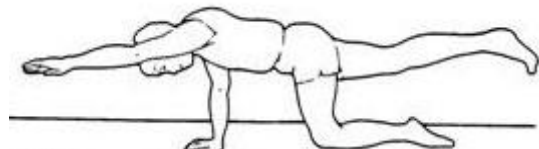
Level 2: In the all fours position, with the knees and hands on the floor tighten the trunk muscles and hold the spine in the neutral pain free position. Extend one arm, hold for a count of 10 and relax. Repeat with the other arm. Repeat 2 x 10.



Level 3: Get into the position described above, but this time extend one leg, hold for a count of 10 and relax. Repeat with the other leg. Repeat 2 x 10.



Level 4: Get into the position as above. Alternately lift one arm and the opposite leg, at the same time, maintaining the neutral position at all times. Repeat 2 x 10.



Level 5: Repeat level 4 with weights strapped to the arms and legs. Repeat 2 x 20.