

CORE STABILITY EXERCISES PART II



How to improve your running - without running!!

In my last article, I discussed how to work the deep trunk muscles which act as stabilizers of the body. As a runner it is very important to have a solid base of support during powerful movements of the arms and legs. Training the core muscles will help maintain a good posture during daily and sporting activities, but will also help to correct postural imbalances which, over a period of time, may lead to injuries.

Test yourself by altering the position of your pelvis. If you stand and put your hands on your hips then tilt your pelvis forwards so your back becomes hollowed and your bottom sticks out, you will notice that you transfer your weight towards the front of your feet and that the arch on the inside of your foot becomes flatter and you go into a pronated position. Alternatively, if you then tilt the pelvis backwards and tuck your bottom underneath, you shift your weight towards the back of your feet and the arch lifts – this is known as supination - the opposite of pronation. It is important that the core stability muscles can hold the pelvis in a neutral position whilst you run – ie not tilted forwards or backwards so you do not encourage over-pronation or supination. The neutral position provides a stable platform for an improved, more powerful performance, with much less chance of injury.

I suggested previously that some runners put orthotics in their shoes to correct pronation. Pronation can be a result of weakness in the core muscles and whilst orthotics can be used to help correct the alignment, it is important to strengthen the weak core. Wearing orthotics without incorporating the core strengthening exercises may not resolve your problem – it takes a bit of effort on your behalf as well!

In the last article, I discussed how to achieve a 'zipped position' by concentrating on contracting the deep, stabilizing muscles, then how to perform a few very basic activities whilst maintaining this position. If you cannot remember how to do this, it is important that you go back to the last article and get this right before moving on to these next exercises.

The next set of exercises sound easy, but it is important to 'zip up' and stabilise the core whilst doing them. They divide into static floor exercises which develop stability and strength endurance in certain positions, and dynamic exercises which require the core muscles to maintain correct posture and alignment whilst other body parts are moving. Dynamic exercises can be carried out on the floor or are often done using a gym ball (Swiss ball).

It is important to incorporate both of these types of exercise into your programme. You need to be able to stabilize the core when static, but as a runner, you need to be able to maintain this stability and alignment whilst moving. Begin with the static exercises and progress to the dynamic exercises.

KEEP THE PELVIS IN THE NEUTRAL POSITION FOR ALL OF THE FOLLOWING EXERCISES

REMEMBER - STAY 'ZIPPED'

STATIC FLOOR EXERCISES



1 The Plank

Lie on the floor face down supported on the elbows and toes. Lift the pelvis off the floor whilst maintaining a straight body position. Hold this position for a few seconds initially, gradually increasing the time up to 1 minute. Repeat 2-3 times.



2 Side Plank

Lie on your side making sure the hips are in line vertically – not one in front of the other. Lift the body off the floor keeping the head, shoulders, hips and feet in a straight line and the supporting elbow under the shoulder. Hold this position for a few seconds then slowly lower back to the ground. Gradually build up the hold until it can be maintained for a minute. Repeat 2-3 times then repeat on the opposite side.



3 The Bridge

Lie on the floor on your back with knees bent and feet on the floor. Squeeze the buttocks together and lift the hips off the floor until there is a straight line from the upper body, through the pelvis and down to the knees. It is important not to lift too high making the back over-arched. Hold for a few seconds initially and increase to a minute. Repeat 2-3 times.



4 The Kneeling Superman!

Start in a position on all 4's on the floor. The hands below the shoulders, and knees below the hips. It is very important that the pelvis is in its neutral position and the back isn't over or under arched. Slowly slide 1 leg back and the opposite arm forwards, lifting them up to create a balanced 'hold'. It is important that you only lift the arm and leg as high as the 'zipped' position will allow – you might not be able to get to vertical but that is not important. Do not allow the pelvis to drop, or the shoulders or hips to move sideways. Hold this position for a few seconds then slowly return to the starting position and repeat with the opposite limbs. Repeat 2-3 times.

DYNAMIC FLOOR EXERCISES



1 Oblique Crunch

Lie on your back with the knees bent and feet resting on the floor. Then cross your right leg and put the right foot on the left knee. Keeping the right shoulder on the floor, place the fingers of the left hand on the side of your head and lift the left shoulder towards the right knee then slowly lower back down. This can be repeated 15 times on each side. It is very important to keep the head in a neutral position - as if there was a peach tucked under your chin and you can't squash it. Also, the hand must be on the side of the head – not behind the head pulling the head forwards.



2 The Plank With Leg Lifts

As above, but raise 1 leg off the floor approximately 6 inches and lower, then repeat with the other leg.



3 The Side Plank With Leg Lifts

As above, but lift the top leg approximately 6 inches and then lower again. Repeat several times on each side.

DYNAMIC BALL EXERCISES

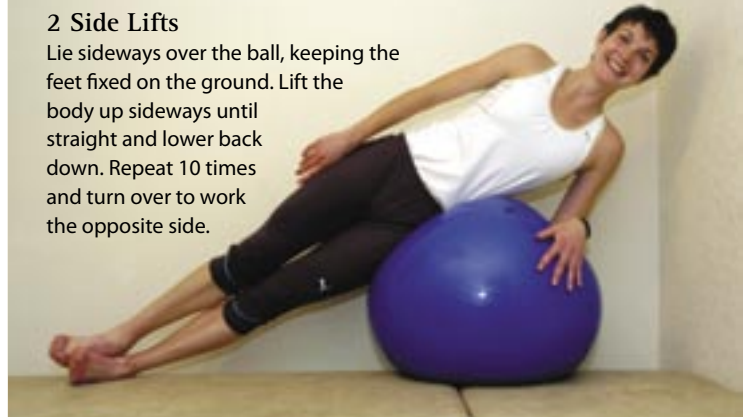
1 Abdominal Crunches

Lie backwards over a gym ball keeping the feet fixed on the ground. Put your hands either side of your head and slowly lift your body to a straight position and lower again. It is not necessary to crunch further than this but 'stay zipped'. Repeat 15 times.



2 Side Lifts

Lie sideways over the ball, keeping the feet fixed on the ground. Lift the body up sideways until straight and lower back down. Repeat 10 times and turn over to work the opposite side.



3 Back Extensions

Kneel on the floor and lie over the ball. Position the hands by the side of the head and lift up backwards so the body is in a straight position then lower back down slowly. Repeat 10 times.



REMEMBER - STAY 'ZIPPED'

Core stability exercises are often referred to as BORE stability exercises. It takes a lot of motivation to carry out these exercises 2-3 times/week, but vary the exercises to make them more interesting. I have described some of the more popular exercises here, but the options are endless. If you find it difficult to motivate yourself to do these on your own, look for classes at your local gym – Pilates, body pump and core stability exercise classes all focus on developing these specific muscles – and you will be checked to make sure you are doing it correctly.

It is only when you develop these muscles that you will realize how much they enhance your running style and performance. If you want confirmation of this – ask Mary Wilkinson, who kindly posed for my photos in the 2 core stability articles, Anna Pichrtova (European Mountain Running Champion) who used these exercises to improve her performance over the 2006 season, and Joe Symonds, who I think has got some of the best core muscles I've seen in a runner.