

Pilates in Practice

In March's Health and Fitness column we discussed the principles and benefits of Pilates. As you may recall, the article stressed the importance of core stability, which is fundamental in Pilates exercises. Hopefully your curiosity is sparked, and you're ready for some practical tips on how to improve your core stability.

Many top WTA Tour players practice Pilates exercises to improve their core stability, increase joint mobility and flexibility and to improve their balance. The exercises shown below are often used with these athletes as part of their weekly training and are also performed when returning from an injury. The pros know how well they perform on the court when they look after their core stability, and so should you!



A stable core is when the deep abdominal muscle of our trunk (Transversus Abdominus) is activated, thereby producing a "corset" effect. When the pelvis and low back are stabilized, our bodies can move more efficiently and safely. In addition to protecting us from injuries, core stability also may increase the power you can generate on the court, which will take some of the stress off of your arms and legs. When the power in your strokes comes from your core rather than your extremities, you can increase your control on the court (not to mention decrease the risk of injuries to your extremities!). No promises that these exercises will give you the power of Serena Williams, but with practice you should start to see benefits in your game.

*The beginning stages of the following core stability exercises are specific and are critical to correctly activate the deep muscles. Once you are able to do this, you should apply the Neutral Spine and Deep Abdominal Muscle Activation to each Pilates exercise, and also try to incorporate them into your daily routines and when on the tennis court. Good luck!



Neutral Spine Position

Targeting your deep abdominal muscles involves first locating a Neutral Spine position. In this position, the lumbar spine and pelvis are in optimal alignment, placing low stress on all the structures of the spine. Your back should have a slight arch, ensuring it is not flattened. Position yourself so your knees are bent with your feet flat on the floor. To start, your belly should be soft (as pictured), with your stomach muscles relaxed.

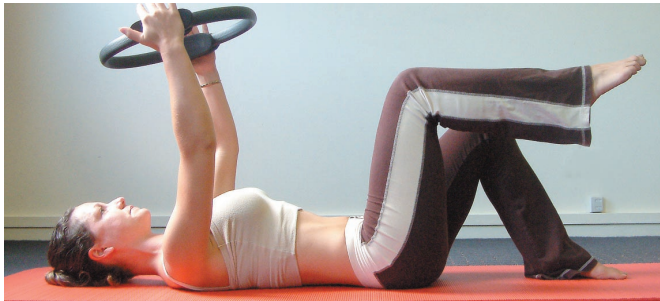


Activate Deep Abdominal Muscle

Be sure to maintain Neutral Spine while activating your Deep Abdominal Muscles. To start, inhale deeply, and as you exhale gently and slowly pull your belly button toward your spine, which will slightly hollow your stomach. When performed correctly, only your deep muscles will activate, and your superficial muscles (Rectus Abdominus and Obliques) will stay relaxed. When gently pulling your belly button toward your spine, be sure to activate the deep muscle with only about a 30% effort – it should be a very gradual and slight contraction.

Once you are able to achieve and maintain the contraction, continue breathing normally, ensuring you do not hold your breath.

By Michelle Gebrian



Dead Bug Exercise

Start with your knees bent, feet flat on the floor and positioned hip-width apart. Your arms may be at your sides or overhead as pictured. While activating your Deep Abdominal Muscles, the goal of this exercise is to keep your pelvis (hips) level while raising and lowering your leg. Breathe in as you raise leg to 90 deg. angle; breathe out as you lower leg to start position. Repeat with opposite leg, ensuring you maintain Neutral Spine during exercise.

Muscles Targeted: Deep Abdominals



Dead Bugs with Leg Extension

Same starting position as Dead Bugs exercise. Raise leg to 90 degree angle (as pictured above), then extend leg to 45 degree angle while pointing toes, return leg to 90 degree and finally lower leg to start position. Repeat with opposite leg ensuring you maintain Neutral Spine and do not allow your back to arch.

Muscles Targeted: Deep Abdominals, Quadriceps and Hip Flexors.



The Clam

Lie on your side with head positioned in a straight line with your spine, and hips and shoulders positioned in straight line. Knees are bent to 45 degree angle, resting on top of each other to start. Keeping your feet together, slowly raise top leg until your knee is level with your hip. Hold this position for five seconds,

and then slowly lower leg to start position. Perform 10 repetitions then repeat with opposite side.

Muscles Targeted: Gluteals, Deep Abdominals.



4-Point Kneeling

To start, position hands directly under your shoulders and knees under your hips (as pictured). You should be in Neutral Spine and have your Deep Abdominal Muscles activated before starting exercise. Your neck should be in line with your spine, and your upper back should be flat, with your neck muscles relaxed. Position your arms so your elbows remain soft. If you have a history of wrist problems, this exercise may not be for you.

From this start position, you can perform several variations of this exercise to further challenge your core stability.

1) Single Arm Lift: Maintain Neutral Spine during exercise and slowly reach one arm out in front of you, keeping your wrist in line with your spine. Return arm to ground, and repeat with opposite arm.



2) Single Leg Lift: Maintain Neutral Spine during exercise and slowly slide one leg out behind you. Ensure your pelvis stays level to the ground and does not rotate. Only extend your leg as high as you are able to maintain Neutral Spine (if your back starts to arch, you have gone too far). Lower leg to ground, and repeat with opposite leg.

3) Opposite Arm and Leg Lift (as pictured): Maintain Neutral Spine during exercise and lift the opposite arm and leg away from each other. Ensure you do not twist your spine, and that you are able to keep your Deep Abdominal Muscles activated. Lower to ground and repeat with opposite arm and leg.

Muscles Targeted: Deep Abdominals, Gluteals, Hamstrings, Lower Trapezius.

Pilates photographs taken at Dynamic Stability Physiotherapy and Pilates Studio in Richmond, Victoria. ●