

CORE STABILITY EXERCISES






I have included three levels of exercises. Please begin at level one to ensure you have the correct isolation of the deep abdominal muscles and a feel for how they work before progressing to the next level. I cannot stress enough how important technique and activation of the right muscles are when doing these exercises so please be mindful when performing these exercises. **Start each exercise by finding neutral spine and drawing in your lower stomach.**

Remember these exercises are working your postural, endurance muscles surrounding your trunk so this workout will not be anything like the intensity of your swimming, cycling or running workouts. Try to relax and enjoy this part of your program. Leave yourself 30-40 minutes to complete these exercises.

Please read the preparatory information on pelvic tilting and finding your neutral spine before you begin the core stability exercises below.






CORE STABILITY EXERCISES

Level 1

EXERCISE	LEVEL 1	PHOTO
Stomach Exercises	<p>1. Lower Stomach to spine</p> <ul style="list-style-type: none"> ▪ Lying flat on your back ▪ Feet on the floor, knees bent to 60 degrees ▪ Find your neutral spine position ▪ Holding that position, gently draw lower stomach to spine (30-40% effort only) ▪ Hold 5 sec, keep breathing <p>Repeat 10-15 times</p>	
	<p>2. Leg Movements</p> <ul style="list-style-type: none"> ▪ Continue in the same position as the exercise above ▪ Keeping that neutral position and drawing your lower stomach in ▪ Slowly lift one foot off the floor, keeping your knee bent and return ▪ Your hips should stay level and not drop as you lift your foot ▪ Breath in as you lift your foot and breath out as you place it down ▪ Repeat with the opposite leg <p>Repeat 10-15 times each side</p>	
	<p>3. Abdominal Controlled Curls</p> <ul style="list-style-type: none"> ▪ Same position as above. Find neutral spine and draw your lower stomach in ▪ Hands/Arms by your side slowly curl up lifting your shoulder blades off the floor ▪ As you lower do not let your stomach muscles go, keep that lower stomach drawn in ▪ Breath in as you curl up and out as you lower <p>Repeat 15 times, complete 3 sets</p>	
Buttock/ Back Exercises	<p>4. Bridging</p> <ul style="list-style-type: none"> ▪ Again lying flat on your back, find your neutral spine and draw your lower stomach in ▪ Slowly push down through your feet and lift your bottom right up so your trunk is straight (shoulders, hips and knees in line) ▪ Breath in as you lift and out as you lower ▪ Hold the lift for 5-10 seconds and thinking of squeezing your buttock as you lift <p>Repeat 10-15 times</p>	
Trunk/ Legs	<p>5. Wall Squats</p> <ul style="list-style-type: none"> ▪ Standing with your back to the wall ▪ Take one step away from the wall, still leaning against the wall ▪ Your toes should be in line and slightly turned out ▪ Find your neutral spine position and draw your lower stomach in ▪ Holding this position, slowly perform a 1/2 squat (your bottom should stay in contact with the wall) ▪ Hold the squat for 5 seconds and return to start <p>Repeat 12 times, complete 3 sets</p>	






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Level 2

EXERCISE	LEVEL 2	PHOTO
Stomach Exercises	<p>6. Heel Slides</p> <ul style="list-style-type: none"> ▪ Lying flat on the floor in the starting position* ▪ Keeping that neutral position and drawing your lower stomach in ▪ Slowly lift one foot off the floor, your hips should stay level and not drop as you lift your foot ▪ Slide your heel along the floor until your knee is straight then return to a bent knee ▪ Maintain a strong trunk with very little to no movement ▪ Alternate sides <p>Repeat 10-15 times with each leg</p>	
	<p>7. Controlled Roll ups</p> <ul style="list-style-type: none"> ▪ Lying flat on the floor, legs straight along floor ▪ Arms and hands along your sides ▪ Gently/slowly lift your head off the floor and draw your lower stomach to spine as you slowly start to sit up ▪ Slowly breath in as you continue sitting up until you are straight ▪ Pause when you are straight, begin rolling back down breathing out ▪ Start at your pelvis and slowly unfold your spine as you return to the starting position <p>Repeat 10-15 times</p>	
	<p>8. Hundreds</p> <ul style="list-style-type: none"> ▪ Lying flat on the floor, knees bent, feet on the floor ▪ Elbows and wrists straight along your sides ▪ With your spine in neutral and your lower stomach drawn in curl up so your shoulder blades are off the floor ▪ Moving from the shoulders start small beats, 5 per inspiration, 5 per expiration <p>Perform 40 beats in total and rest, repeat 2 sets <i>* Gradually try to complete 100 without taking a rest</i></p>	
Buttock/ Back Exercises	<p>9. Single Leg Bridging</p> <ul style="list-style-type: none"> ▪ Again lying flat on your back, find your neutral spine and draw your lower stomach in ▪ Slowly push down through your feet and lift your bottom right up so your trunk is straight (shoulders, hips and knees in line) ▪ Holding the position slowly lift one foot off the floor ▪ Again your trunk and hips should stay level and not dip ▪ Return your foot and repeat on the opposite side ▪ Breath in as you lift your leg and out as you return if to the floor <p>Repeat 10-12 times before lower to the starting position. Repeat 2 sets</p>	
Trunk/ Full Body	<p>10. Modified Plank</p> <ul style="list-style-type: none"> ▪ Place your elbows on the floor shoulder width apart and directly under your shoulders ▪ Supporting yourself on your elbows and knees, be sure your body is in a flat line (no dip or arch in your spine and bottom tucked in) ▪ Keeping your spine neutral and drawing in your lower stomach <p>Hold this position 20-30 seconds and rest for 30 seconds, Repeat 3 times <i>* As you get stronger challenge yourself and try holding the position for longer each time.</i></p>	

CORE STABILITY EXERCISES

Level 3

EXERCISE	LEVEL 3	PHOTO
Stomach Exercises	<p>11. Advanced Roll Ups</p> <ul style="list-style-type: none"> ▪ Lying flat on the floor, knees bent, feet on the floor ▪ Arms and hands along your sides ▪ Gently/slowly lift your head off the floor and draw your lower stomach to your spine as you slowly start to sit up ▪ Slowly breath in as you continue sitting up until your are straight ▪ Pause when you are straight, begin rolling back down breathing out ▪ Start at your pelvis and slowly unfold your spine as you return to the starting position <p>Repeat 20 times</p>	
	<p>12. Hundreds Plus</p> <ul style="list-style-type: none"> ▪ As in Level 2, start in the same position ▪ Instead of keeping your feet on the floor, lift your lower legs so your hips and knees are at 90 degrees and your shins are parallel to the floor ▪ Drawing your lower stomach in, perform a curl up so your shoulder blades are off the ground ▪ Holding this position, perform 5 beats per inspiration and 5 beats per expiration <p>Continue for 60-100 beats, rest and repeat</p>	
Buttock/ Back Exercises	<p>13. Front Plank</p> <ul style="list-style-type: none"> ▪ Place your elbows on the floor shoulder width apart and directly under your shoulders ▪ Supporting yourself on your elbows and toes, be sure your body is in a flat line (no dip or arch in your spine and bottom tucked in) ▪ Keeping your spine neutral and drawing in your lower stomach <p>Hold this position 20-30 seconds and rest for 30 seconds, Repeat 3 times</p> <p><i>* As you get stronger challenge yourself and try holding the position for longer each time.</i></p>	
Trunk/ Full body	<p>14. Side Plank</p> <ul style="list-style-type: none"> ▪ Lying on your side, prop yourself on your right elbow placed directly under your shoulder ▪ Place your right knee and hip in line with your shoulder ▪ Lift yourself off the ground supporting your body on your right elbow and knee, your body should be in one flat line <p>Hold for 20-30 seconds and repeat 2 times each side</p> <p><i>* As a challenge support yourself with your knees straight and your weight on your elbow and the sides of your feet</i></p>	
	<p>15. Lunges</p> <ul style="list-style-type: none"> ▪ Standing walking stride position, with your feet hip width apart ▪ Find your neutral spine and draw in your lower stomach, think of stretching from your trunk ▪ With 90% of your weight on your front leg bend your knee, keeping your knee and hip at 90 degrees, and your trunk directed straight down, not forward ▪ Your back heel should come off the ground, keep your arms by your side for balance ▪ Straighten your knee <p>Repeat 15 times on each leg, doing 2-3 sets</p> <p><i>* To challenge your core stability and balance start with your feet together and include a step lunge, alternating between right and left legs</i></p>	

CORE STABILITY PROGRAM - Preparatory Information

Core Strength vs. Core Stability

Similar to most strength training programs, **core strength** is developed by performing exercises specific to the muscles of the abdomen, buttock, back and hips. Most of these exercises isolate a particular muscle group, in order to develop specific strength (e.g. back extensions, curl ups)

Core stability, on the other hand, is the integration of strength and coordinated movement. More specifically, core stability is the interaction of coordination and strength of the abdominal, back and buttock muscles during activity to ensure the spine is stabilized and provides a firm base to support both powerful and very basic everyday movements of the arms and legs.

Core stability training is an essential component of sport performance and plays a key role in injury prevention. The primary function of the body's core muscles is to stabilize the spine, pelvis and shoulder blades, thereby providing a strong foundation for movements of the arms and legs. The core muscles are the deepest layer of muscles within the torso and include the abdominal muscles, lower back muscles as well as buttock and hip muscles, which surround the pelvis. Developing a solid foundation within our torso muscles will then allow us to generate powerful movements from our trunk outwards.

Core Stability;

- Improves posture
- Maintains healthy and balanced muscles
- Enhances physical functioning in everyday activities (i.e. Functional Fitness)
- Facilitates powerful movements such as those executed during sport
- Helps to protect joints and muscles from injury

Neutral Spine

The idea of neutral spine simply relates to **setting your trunk** before you begin a core stability program. By finding your neutral spine position you are activating the key core muscles within your torso, which need to be 'turned on' prior to executing coordinated movements. Lets try.

1. Start by lying flat on your back on a mat or comfortable carpeted floor with your knees bent.
2. Place your arms by your sides so that your elbows are straight and your shoulders relaxed.
3. Slowly take three deep breaths in and out to try and release any stress and relax your body.
4. Gently and slowly tilt your pelvis so that you are flattening your back into the floor. Avoid lifting your buttock. Try to isolate the movement so that only your pelvis is moving.
5. Now tilt your pelvis in the opposite direction so you are arching your lower back. Again try to keep the movement isolated to your pelvis.
6. Repeat steps 4 & 5 a few more times. By tilting your pelvis you are performing what is called an anterior pelvic tilt (arch back) and a posterior pelvic tilt (flatten back).
7. Now to locate your neutral spine, find the middle position between flattening and arching your back.
(A tip to do this: Place the heel of your hands on the hip bone of the same side and place your finger tips on your pubic bone located at the very bottom of your stomach. Your hands are making a triangle shape on your lower abdomen. The fingers and heels of your hands should all be level.

Remember to find your neutral spine and activate your deep abdominal muscles prior to each core stability exercise.