



**Endurance Chiropractic
& Sports Therapy**
Live Active

Foundations for a Solid Core

Have a 6 pack and back pain, fix that leaky core!

In a Chiropractic and Physical Therapy office setting we see the effect of faulty core engagement and bad movement patterns every day. The most interesting of these cases involve high level athletes which by all metrics, are incredibly fit! These amazing athletes have mastered some of the hardest movements that exercise crazies have put out there, but when we test their core stability, they start showing cracks. This is when questions like, “Why does my back keep hurting, why do my knees ache, why can’t I squat 600 lbs (other than the fact that you look like a string bean?)” start showing up.

The answer in many cases is, you have great abs, but no core! **The core is much more like a cube than a tube or just abs**; imagine playing dice, your torso divided into 6 pieces, your abs only being 1 of those. The circular portion of the core is made up of your oblique on 2 sides, lumbar spine stabilizers in the back, and the all-important “Show me muscle” abs up front. About this time, you’re thinking, “wait, didn’t he say 6 sides?). Yes, I did, let’s talk about 2 of the most forgotten areas of the core that can make the biggest difference in your stability, and by extension ability to train effectively reducing injury.

I’d like to introduce the diaphragm and the pelvic floor. Your diaphragm is so much more than just a breathing apparatus, when a heavy load is lifted it creates the top of the ball we talked about before. The lower portion is vital to the health and stabilization of the pelvis, the pelvic floor is usually only talked about at the OB’s, but open your ears guys (These have been linked to bladder control and sexual performance too)! **What happens when you have 5 strong sides of muscle and the bottom is weak?** Can you imagine a tube of toothpaste? Yuck, not really something any of us want to see in the gym!

So, let’s get to fixing that leaky tube of toothpaste! As this article is written toward a generally fit athlete, some of these may not be appropriate for someone at a lower level of conditioning. I’d recommend finding a great Chiropractor or PT to help you get to the level of being able to handle these exercises, and as always **if you have pain in these movements please seek the help of a qualified healthcare provider.**

Starting off, the most basic of these exercises is the **Kegel**, I'd post a picture but you might not like what you see! Kegels are a great way to engage the pelvic floor and strengthen the bottom of the core.

- Imagine you are trying to make it to the bathroom after drinking your gallon of water post workout, can you imagine those muscles now?
- Tighten the pelvic floor, like trying to cut off flow mid-stream, while seated in a relaxed position, hold it for 3 seconds, relax, and repeat 10 reps; try to repeat 3 times a day.
- As you get stronger, you can begin to incorporate these while standing or walking.

The next exercise is a throwback to the old 80's workout videos, break out the tights and leg warmers! Oh wait, they already came back...

The **Side Lying Leg Raise** has been a long time favorite of PT's and Chiro

- Lie down on your side; point your foot straight ahead
- Keep the foot in this position and raise your leg straight to the ceiling until you feel your leg stop or you feel your pelvis and lower back begin to rotate to get more motion.
- You should feel that good muscular burn after a few reps on the side of your glutes; repeat this for 10 reps, 2 sets each side.



If you can't tell already stabilizing the pelvis is a huge part of building a bullet proof core, the next exercise is no different.

For the **Standing Heel Touch**, you'll need a step about 6-9 inches tall; I use some old undergrad textbooks that I found soooo useful the first time!

- Stand with one foot on the step, keep the hanging leg straight as you begin to squat and touch your heel to the floor.
- Keep your chest upright with a tight core (imagine your buddy is about to hit you in the stomach, and brace accordingly, this one engages the entire core, especially the obliques)
 - Do not wobble back and forth as you work your way down and back up. You'll quickly find weak links as you bend.
 - I like to do this in front of a mirror so you can make sure you stay upright and keep your knee driving between your 2nd and 3rd toe (not over your arch or toward your pinky toe).
- Do 2 sets of 10 each side and you'll begin to see big changes in your stability.
 - ***BONUS*** This can also be a big asset in training for pistols, just slowly increase the size of the box as stability grows.



Now the dreaded word everyone has been waiting to hear, **PLANKS**. Planks have been stuck in core strengthening lore for decades, but they've stayed there for good reason! By getting into a plank position and holding your abs, obliques, low back, and pelvic floor tight it gets a true whole body

workout. This is also a great way to train your diaphragm while exercising due to the fact you must stay braced and breathe at the same time, too often I see people who can brace, or they can breathe, but can't come close to doing both. And what happens when you work out and don't breathe? That's right, you pass out or let your core go and hurt yourself.

- Lie down onto your toes and elbows while tightening your core, keeping your tush down
- Begin with 30s holds, 3 times. Progress to 60 and 90 seconds as it becomes easier
- REMEMBER to **BREATHE!** Training that diaphragm while bracing is one of the most important things you can learn from a plank



The next group of exercises utilizes weight in the form of a Kettlebell, NO it's not a kettleBALL, stop saying that, people are laughing... Each of these motions are great at fully engaging all sides of the core. For some instructional help I reached out to one of the best coaches for kettlebell and strength movements I've ever met. Jason Marshall is a Master SFG instructor with StrongFirst and Lone Star Kettlebell; he is an expert in weighted movements and not a shabby athlete himself with a 450+ pound squat and 600+ pound deadlift, this guy knows how to move weight. But, moving big weight is only good if you are stable doing it!

First, we will be starting with a **Goblet Squat**, this motion is building the foundation for a solid weighted squat as you must stabilize weight in front of the body and not spill your cup!

1. Start over the kettlebell with feet at shoulder width, quickly stand up holding the sides of handle
2. The Standing Plank
 - a. Stand up vertical with hips and knees fully extended
 - b. Contract quads, glutes, and abs
3. Hold the kettlebell even with your sternum to belly button with your elbows tucked in towards your rib cage
4. Initiate the squat with a sharp inhale
 - Hinge at the hips, keeping a tall chest
5. Descend aiming for the elbows to touch inside the knees, not on top
 - Keep a tall torso and neutral spine
6. The Bottom
 - Pull your hips even lower while pushing your elbows out on the inside of your knees
 - Focus on very tall posture from the crown of your head through your tailbone
7. The Ascent
 - The grunt or saying the word, "UP!" should initiate the ascent



- The shoulders and hips should rise at the same rate
- Set the bell down the way you picked it up
- The set isn't over until the kettlebell is safely placed on the ground

Another great way to train pelvic and core stability is using **Asymmetrical Load Carries**, these are also known as a farmers carry. The setup is very important and sets the tone for the lift as you will have uneven weight distribution:

- Set up next to a kettlebell even with your ankle
- Hinge at the hips reaching down with BOTH hands
- Imagine grabbing two kettlebells and crush grip with your empty hand

1. The Pick Up

- Keep the knees, hips, and shoulders square while picking up, do **NOT** lean!
- Keep a perfectly tall posture

2. The Walk

- Continue with tall posture and fighting the urge to lean
- Keep your shoulders back and down
- Keep your chin up and eyes forward

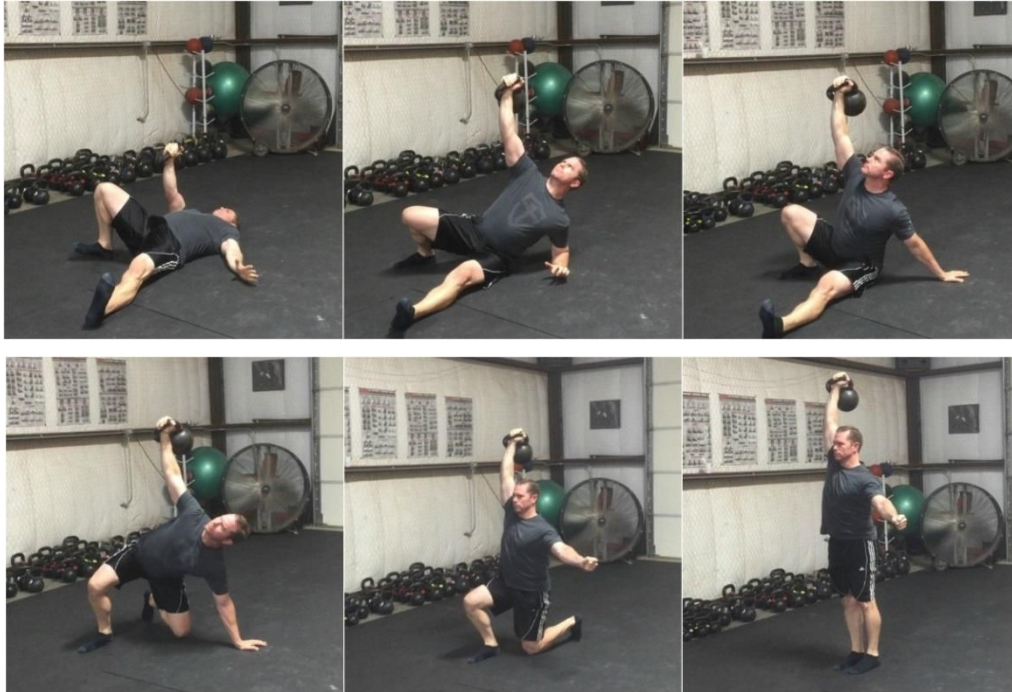
3. The Set Down

- Set the kettlebell down the same way you picked it up
- Square shoulders, hips, and ankles
- **Do not** lean to one side
- Use your hip hinge and keep the spine neutral



It is **vitaly important** that you don't walk like a weary mom carrying a toddler, pushing that hip out and carrying at an angle will do nothing but cause you pain!

The last and most complete movement is the **Get Up**, it is crucial for spinal and pelvic stability, and is amazing at helping with shoulder and upper body stability as well.



The Start

- a. Put an object on a clenched fist or grab a **LIGHT** kettlebell
- b. Keep your wrist and elbow straight and pack your shoulder down to the ground
2. Roll to Elbow
 - a. Drive through the heel of your foot on the kettlebell side and ROLL up to your elbow
 - b. Keep both shoulders tightly packed
 - c. Keep a big, proud chest throughout
3. Extend elbow to tall sit
 - a. Extend the down elbow and sit up tall
 - b. Continue to pack both shoulders down and back and keep a big, proud chest
 - c. Keep the knee straight on the down leg, if possible
 - d. Keep the foot flat, with the heel planted on the bent-leg side
4. Sweep the knee
 - a. Extend the hips slightly and pull the straight leg knee towards the down hand
5. Half Kneel
 - a. Hinge your hips under the weight or the top arm
 - b. Square up into a lunge or half kneel position
6. Stand Up
 - a. Use your glutes to stand up
 - b. Drive through your front heel and back toe
 - c. Stand straight up
 - i. Try to avoid leaning forward with your torso
 - ii. Imagine punching your fist straight up through the ceiling

7. Reverse all steps to get back down

These 7 exercises can be a great foundation for the athlete trying to attain stability. Just remember, if something is too hard or you are unable to perform, please contact a healthcare provider and make sure you are not contributing to an injury that will keep you out for an extended period. Building a total and solid core will reap rewards in every aspect of life, not to mention you won't have an embarrassing moment on the gym floor! Don't be a tube of toothpaste; stay strong and live active my friends...

Ryan Doss DC

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For questions and evaluation of injuries or further rehab plans, please contact our office: 806-319-7441 or www.endurancechiro.com