

sustainable lifestyle coaching **Core Guide**

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WELCOME!

I am so excited you're here! This core guide is going to help you LEVEL UP your knowledge and understanding of your body, but also help you function and feel your best in your movement throughout daily life, and in workouts. We're going to break down what the core is, why we need it, and what happens when it's not being used properly. You're going to learn proper breathing and muscle activation. You will walk away knowing how to engage your core for general movements and exercises, how to brace your core for optimal stability when needed, and even when things like lifting belts might be helpful. We're going to lay out all the whys and hows of training your core and why it's about far more than "getting abs!"

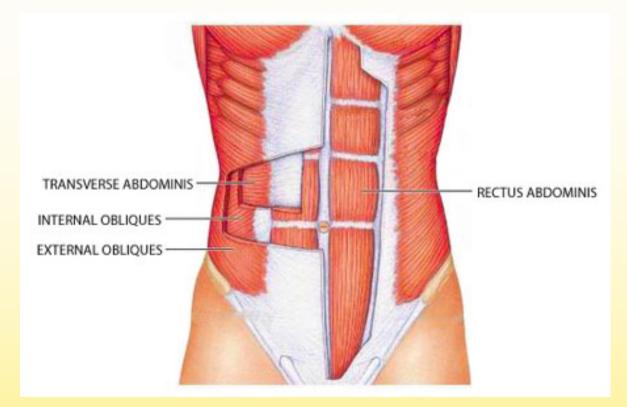


WHAT IS THE CORE?

The core is the center of the body, spanning the area of your rib cage down into the pelvis. The core is where nearly all movement originates. Therefore it is involved in every exercise you perform in your workouts, and essentially every movement throughout your daily life.

Breaking down what the core actually is, let's start with what we all for sure know. The famous "six-pack," or most commonly referred to as our "abs", is the rectus abdominus. The rectus abdominus runs vertically along the front of our belly, from the pubic bone to the sternum. The muscles of the rectus abdominus are the most superficial layer of the core muscles - but only make up about 10% of core musculature.

The core is a much larger area than what people refer to as "abs." Some other major muscles include, but are not limited to, the transverse abdominus, the diaphragm, pelvic floor musculature, oblique musculature, the multifidus, and erector spinae muscles.

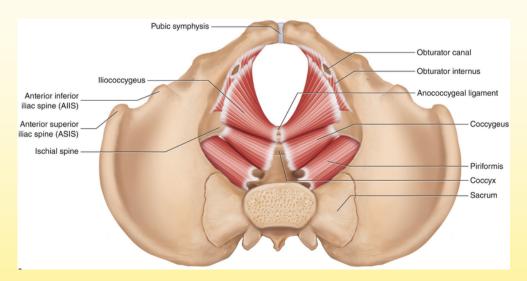


CORE MUSCLES

The deeper core muscles referred to as the inner core, for our use, include the transverse abdominus, and the pelvic floor musculature. These muscles specifically allow for functional and stabilizing movement of the spine, the pelvis, and the hips.

The transverse abdominus (TVA) is one of the core muscles we are going to talk a lot more about later in the guide, and it makes up the innermost abdominal muscle wall. The TVA can be referred to as the body's "natural corset". It wraps from the spine around both ways towards the belly button, and spans from the bottom of the ribcage to the top of the pelvis.

The Pelvic Floor (PF) is a group of muscles and connective tissues attached to the bones at the bottom of your pelvis. If you could look down vertically in-between your hip bones, you would see the pelvic floor muscles at the bottom (floor!) of your pelvis. The PF has 16 individual muscles that perform its job, and how well they perform their job has a lot to do with what kind of shape they're in. You don't want your pelvic floor muscles too overactive (tight) or too underactive (weak). There's a happy medium with your pelvic floor muscles. This is the reason that a blanket statement of "do kegels" (tightening the PF) does not adequately address PF health. As we go through how to both release & engage the core, the pelvic floor will be targeted just as much as the "abs."



FUNCTION & DYSFUNCTION OF THE CORE

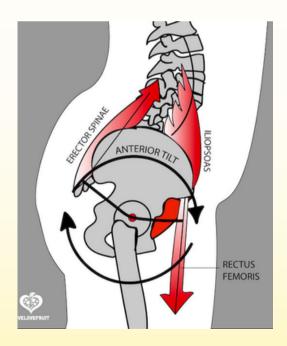
Basic Functions of the Core Unit:

- Provide support & stability
- Provide protection
- Aid in posture
- Assist in breathing
- Control & manage intra-abdominal pressure (IAP)
- Maintain continence
- Initiate nearly all movements

Some Signs of Core Dysfunction:

- Low Back pain
- Pelvic pain
- Anterior or posterior pelvic tilt
- Coning or coming (any protruding seen vertically between the belly button and ribs)
- Unintentionally peeing
- Chest dominant breathing





POSTURE

To lay some groundwork for learning and practicing proper core function, we need to ensure our posture allows for optimal breathing & core function. We want to align the body and stack the joints so that everything can work synergistically, helping us to experience the least resistance and difficulty in the practices that will follow. To achieve what we are going to call a "neutral posture" we are going to stand up, fix our gaze on something stationary in front of us, and assess the following things from the ground up:

- 1. **Feet** Stand about hip to shoulder width apart. Imagine the feet being a tripod, with one point being under the heels, the second being at the base of the big toes, and the third being at the base of the pinky toes. Now try to slowly shift your weight until you find equal pressure (1) between right and left foot, and (2) between all three points of the tripods under your feet. If there were a pressure map under your feet we want to see both feet, and all the points on each foot, showing the same color/same pressure.
- 2. **Knees** Simply unlock your knees so that they are "soft", not bent, but not locked out. Don't overthink this.
- 3. Pelvis Place your hands on your hips, and find your posterior pelvic tilt (PPT) and anterior pelvic tilt (APT). To find your PPT, with your hands on your hips, pull your tailbone down and forward "tucking your tail" as much as you can, as if tilting your pubic bone up towards your chin, exaggerating this as much as you can. If your pelvis was a bucket of water, the PPT would be allowing water to spill out of the back of the bucket behind you. Oppositely, find your APT, tilt your pelvis as if the bucket of water would now spill water out of the front. This means lifting the tailbone and sticking your butt out, as your pubic bone tilts down towards the ground. Now, to find neutral, still with your hands on your hips, move between your PPT and APT to find the middle ground between the two. Your neutral pelvis is where your "bucket of water" would not be spilling out forward or backward. Once found, relax your hands by your sides. Note that your pelvis should also be level, with right and left hip evenly positioned, not having one hip hiked. If this is the case, start back at feet to ensure we have a good foundation.



POSTURE

4. Rib Cage - Gently pull your rib cage down, ensuring that it is not flaring upward.
5. Shoulders - Let your jaw and shoulders relax and gently draw your shoulders away from your ears. Then, *gently* draw them back just so that they are vertically lined up under your ears, not so much that you are pinching them back behind you. Note that your shoulders should also be level, with right and left shoulder positioned evenly, not having one shoulder higher than the other. Imbalances here are common, it may require more work on one side than the other to draw the shoulder down away from the ear.

6. **Head** - Looking forward, imagine a puppet string at the crown of your head gently lifting you upward toward the ceiling, lengthening your body from heels to head to stand tall.

Video Guide: Neutral Posture



As you progress along this in order, you may find that you lose the placement of something lower that you had already adjusted. This is very normal at first, simply take a deep breath and reposition yourself. Don't be scared to start over multiple times if needed.

Once you have all these parts together, say hello to your neutral posture. This may not feel natural at all, but the hope is that with awareness and practice, it will become much more natural.

Learning this is one task, and practicing it is another. Practice finding your neutral posture daily. It can even be used as a "posture check" every few hours some days as it's being learned.

BELLY BREATHING/DIAPHRAGMATIC BREATHING

Breathing properly is going to help us not only optimally shuttle oxygen to working tissues, but also lay some foundation in our Mind-Muscle Connection with our core. We're going to jump right into a practice called belly breathing to gain more connection to our deeper and inner core muscles. Belly breathing / diaphragmatic breathing is simply a practice encouraging deeper and fuller breaths, encouraging the full lengthening and relaxation of our core musculature, followed by the natural passive rebound of the same musculature. Nothing about this practice should be forceful, simply relax and try to focus on the air passing in and out of your body. Here we go!

- 1. Lie on your back, preferably on a floor or a semi-firm surface to help provide your body with more accurate proprioceptive feedback.
- 2. Lay with your knees up, feet planted, and then **find your neutral posture** (outlined above) with your pelvis, then ribs, then shoulders, then head.
- 3. Place one hand on your lower belly, near your belt line. Place the other hand somewhere near your upper belly or lower chest.
- 4. Take a slow deep breath in through your nose feeling the air pass through your nasal canal, down your throat, through your chest, passing your first hand and reaching to your second hand, and as your breath reaches deep into your belly feeling your abdomen expand laterally and posteriorly just as much as anteriorly.
- 5. Then *slowly* exhale through your mouth, feeling both hands fall.
- 6. Remain here and try to slow your breathing even further, as you connect more and more to your breath as it flows under your top hand and reaches to your lower hand. Try your hands in different positions around your belly to feel the expanse on the breath in.

Take about 20 breaths here. As you feel proficient with Belly Breathing lying down, progress to sitting up at an incline, sitting upright, standing, and even on all fours. Use this resource to learn Belly Breathing, and then continue to practice it for reinforcement as much as daily.

Video Guide: Belly Breathing

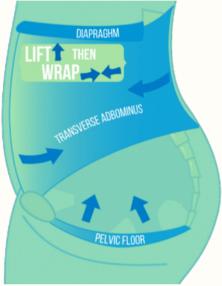
DIAPHRAGMATIC-CORE ENGAGEMENT BREATHING

Taking it up a notch! **We're now going to begin to learn how to engage the core in unison with our breath with Diaphragmatic Breathing (DB).** On our breaths in, we will still be relaxing and lengthening the core musculature, a key factor in a balanced core. But now, on our breaths out, we will now be actively engaging the core. So breaths in are just like our previously practiced belly breathing, but now our breaths out here will *not* be passive. **Let's jump in!**

1. Lying on your back or sitting up comfortably, with a neutral posture, and hand placement just as Belly Breaths outlined.

2. Take in a slow deep Belly Breath.

3. Then, slowly exhale through your mouth, making a sssss sound as you exhale (think the sound a snake makes), while you **"Lift & Wrap." Lift:** imagine a string attached to the center of your pelvic floor being pulled upward, lifting your pelvic floor (PF) up towards your ribs.



Wrap: imagine someone tightening a corset around you, across your hip bones and rib cage, as you pull your ribs down and towards each other, engaging the TVA and wrapping it together from around your back. (Yes, this is a lot in one breath out, don't worry, you have as many tries as you want to get the hang of it)

4. Cycle through this practice of breathing deeply and fully into the belly and then exhaling (audibly exhaling greatly helps while learning) while also lifting the PF & then wrapping the TVA.

Video Guide: Diaphragmatic-Core Engagement Breathing

Every breath in should be connecting to the depth and width of the breath just as in Belly Breathing, and with every breath out we should be gaining more connection to the active work of "lift & wrap." You likely will not learn and master the lift & wrap technique in one session, or even in one week. As mentioned in each section above, first we learn, then we practice. Each session, as much as daily, is a chance to enhance this connection more and more until eventually, you feel fully competent with your Lift & Wrap.

CORE ENGAGEMENT IN PRACTICE

Once proficient with Neutral Posture, Belly Breathing, and Diaphragmatic-Core Engagement Breathing, you are ready to work that core! **All we need to learn now, is how to utilize that connection with your core musculature through multiple breath cycles, and then using it through movement.**

Taking the foundation of core engagement via the "lift & wrap" portion of Diaphragmatic-Core Engagement Breathing, we can transfer this over to maintaining some engagement over a longer period than just during one breath out.

So let's learn, & then practice.

In a comfortable position again, cycle through a few Diaphragmatic-Core Engagement Breaths as learned in the section above - then at the initiation of a new breath in, instead of releasing the engagement completely and relaxing on the breath in, attempt to hold the engagement, remaining even just slightly engaged through a breath in. Try to maintain the core engagement through multiple breaths.

This is very difficult for a while but will come with practice. We are not going to keep it as strongly pulled together as we can when we are only engaging on single-cycle breaths out, we are just looking for the awareness that we have control over these muscles to keep them engaged properly. Do not try to stay so engaged as we did in the single-breath cycle that you are unable to get a breath in. If we are regulating IAP properly, we should not show any bulging of the linea alba (known as "coning" or "doming"), and should not be associated with a feeling of "pushing out" or "sucking in." We are simply maintaining the synchronized drawing together of core tissues throughout a full cycle of breathing out and back in.



CORE ENGAGEMENT IN PRACTICE

Once you can keep the PF & TVA engaged through one breath in, try for two breaths in, then three, and work your way up improving the endurance of this engagement.

This is the general awareness and engagement of the PF and TVA we are hoping to achieve in most movements and exercises. So, once you've worked up to \sim 10+ breaths with PF + TVA engagement, try adding some movement into the mix.



Video Guide: Core Engagement in Practice

Add in some limb movement by performing this engagement through stabilizing exercises like Dead Bugs & Bird Dogs. The amount of engagement you can maintain will vary, the goal is avoiding loss of control/connection with these muscles and not allowing complete relaxation during movement. If at any point in a movement you lose connection with your core and lack engagement, regress to smaller ranges of motion, then work up to full ranges over time.

With practice, it should become "normal" enough that you find yourself gently doing it without much intention when you bend down to pick up the next Amazon package at your doorstep.

During exercise, we want to have this connection and control enough to be able to intentionally use it more optimally. This engagement is the type of core control you should be aiming for in the majority of your training sessions under light and moderate loads.

BREATHE BRACING

So what about heavy or more taxing loads? For these, we want to utilize core bracing, with a Breathe and Brace technique. Bracing is a specific technique used for the most demanding lifts, your heavy compound movements, movements where you struggle to maintain the integrity of your core under a load.

Bracing entails utilizing IAP slightly differently. With bracing, we are trying to create the most stiffness possible to minimize movement of the spine and increase maximal strength.

To visualize what we are aiming for here, think of a basic 12 oz can:

If that 12 oz can has been opened and therefore depressurized, and then you put a Kettlebell on top of the can, what's going to happen to the can? It's going to get crushed, it's going to crumble because the lack of optimal pressure inside the can cannot stand up against that load without faltering somewhere.

Now, if you take that 12 oz can and know that it has optimal pressure inside because it hasn't been opened, and then put the Kettlebell on top, it's going to have the stiffness required to stand strong against that load.



This is essentially what we are trying to achieve when we brace for a big lift. We want to fill our core's cavity with air (the **breathe** part of Breathe & Brace) and use that pressure to create stiffness that can stand against a load.

To do this optimally, we first must optimize the space we're going to fill, we need to have a neutral pelvis and spine unit. (Try taking a full deep breath with a big ol' APT - you can't do it.)

BREATHE BRACING

With a neutral start position, take a deep inhale through your nose, breathing into the core filling the abdomen to surround the lumbar spine with air the same way a belt would surround you. Once proficient with this breath in while under a load, sometimes one can get a little extra air, if after filling with breathing in through the nose, then take another "gulp" of air with your mouth trying to fill that last bit of space. Remember, the idea is: the fuller can, the stronger can.

With this pressurized core space achieved, we then brace over the top of the breath! Using the core musculature we've gained so much control of, we now engage the core in a stiff contraction. This is not sucking in, nor is it pushing out, instead we are contracting against that full belly of air. Think, bracing for a punch to the gut. Similarly to the instant reaction our core has in a cough.

Two very common mistakes here are (1) breathing up into the chest and shoulders, flaring the ribs, or losing a neutral spine on the breathe portion, taking away from the air optimally filling the area we are trying to protect and stabilize. Then (2) rather than contracting against the breath, accidentally pushing air down or "bearing down," forcefully pushing the breath down into the pelvic floor rather than focusing on the contraction squeezing the air around the lumbar spine area. The focus of Breathe Bracing is creating a natural weight lifting belt around the midsection to support the spine, so we want to think of filling with air that would surround the spine, and then squeezing that air to more tightly surround the spine - not allowing the air to fill directly upwards into the chest/shoulders nor push directly downwards into the pelvic floor.

Breathe bracing happens with one breath & brace per rep. Breathe Bracing is likely not necessary for sets over 8 reps (unless going for maximum possible load within those reps - zero reps in reserve). Loads that do not require this level of bracing can be safely achieved with the previously described engagement.

Video Guide: Breathe-Brace & Lifting Belt

*Beware that Breathe Bracing may be contraindicated for anyone with pelvic floor dysfunction or high blood pressure. Please advise your physician.

*Beware that loads heavy enough to require Breathe Bracing for support may be contraindicated during pregnancy pending your training history and expertise. Please advise your physician.

USING A LIFTING BELT

Weight Lifting Belts are a tool used to enhance your ability to optimally brace the core during a heavy lift. Belts have two main purposes in this (1) to add a proprioceptive tool for breath and core brace awareness and (2) to add another physical layer to your natural weight lifting belt (your core musculature). The most important thing to remember with using lifting belts, is that learning to breathe and brace properly, under load, without a belt, is a prerequisite to earn the use of a belt in training.

Adding a belt to nail down the breath portion can help create further awareness about where the breath is going before the core brace, and helps solidify the expansion of the breath surrounding the spine. We want to breathe "into the belt" meaning that our breath is a deep full breath, that expands the abdomen laterally and posteriorly just as much as anteriorly.



Video Guide: Breathe-Brace & Lifting Belt

Once "breathing into the belt" is solidified, add the brace to utilize the belt as an additional physical layer of core musculature. Just as outlined without the belt - but now with the belt on, after taking that breath in, contract the abdomen as if we are bracing for a punch to the gut. Since the belt simply adds another layer to your natural weight lifting belt, it can help create more stiffness and can create a stronger contraction by contracting against the belt (still with the full breath).

When implementing the belt into a lifting routine, it's very important to remember that we don't want to overuse the belt in loads that it's not necessary to benefit from it. Nor do we want to allow the belt to become a crutch upon which we rely on to avoid pain or discomfort. The belt is nothing but an added layer of core musculature when used properly. It will not avoid injury that is imminent if being used as a crutch.

As when Breathe Bracing beltless, when utilizing the belt we still assign one breath & brace for each rep. Breathe Bracing is likely not necessary for sets over 8 reps (unless going for maximum possible load within those reps - zero reps in reserve). Loads that do not require this level of bracing can be safely achieved with the previously described engagement.

CORE TRAINING

Ab training should improve core strength, endurance, & stability. Our abs are roughly half and half type 1 fibers and type 2 fibers, meaning like most muscles, a combination of higher and lower reps can optimize training potential.

For a gauge of where to start, 15-30 reps can be utilized regularly on bodyweight movements, or can be done for time for up to 30-60 seconds. And like other loaded movements, we can challenge our strength in the 6-12 rep range (even though strength can be built across many rep schemes).

Some researchers argue that core musculature can recover from upwards of 30-40 total sets per week, but this is very high volume, and most people will benefit greatly from starting around 10-12 total sets per week, and then progressing up to ~20 if needed. These sets would ideally be broken up over 2-3 sessions/week. Progressing higher in core volume (especially more than 20 sets/week) wouldn't be necessary for most, and should only be included when recovering well and having a specific goal of increasing the size or strength of core musculature beyond the average "lifestyle lifter."

Regardless of fitness or physique goals, you are utilizing your core in everyday life, even when not intentionally/specifically isolating the core - whether you mean to or not. For this reason, everyone should learn and practice most of the techniques outlined in this guide from belly breathing, to diaphragmatic breathing, to core engagement, to ensure that as your body requires core use daily, you are utilizing your core *properly*. Breathe Bracing, and utilizing a lifting belt, may be reserved for those moving heavy loads



AB VISIBILITY

Training your abs does not guarantee seeing your abs. Having core definition is not achieved *just* through specifically training them to create shape and definition underneath other layers of tissue. Visibility is going to be *largely* due to achieving enough fat loss to reveal them - through a calorie deficit.

Science disproves being able to "target" fat loss in specific areas, so we know that where our body loses fat is going to be controlled by the genes responsible for our storage patterns. For example, some people may be able to show visible abs at 20+ percent body fat, some others may not reveal significant core definition even at 15 percent body fat, due to where their body is genetically inclined to store fat cells.

While the above remains true, there is also truth to some excess abdominal fat tissue being connected to high stress. Living a high stress lifestyle can lead to storing more visceral fat - fat surrounding organs, in the abdomen. So, for some individuals, we may be able to "target" some fat loss towards the abdomen by addressing unmanaged stress. Because this type of fat storage is particularly unhealthy and often leads to chronic diseases, it is a serious sign that stress should be addressed, regardless of physique goals.



Specific core training should be utilized after progressing from Belly Breathing, to Diaphragmatic Breathing, to Core Engagement. When ready, find core exercises below, categorized by target area of core, the action of the core, as well as difficulty level.

When progressing from core engagement while stationary to core engagement with movement, start with beginner exercises, then progress towards intermediate, and then toward advanced over time. It may take a period of months to make those jumps successfully while still being able to regulate IAP with proper core engagement.

Target areas can help you to identify specific areas of the core you may want to focus on. A "target area" simply means the portion with the most intention toward it; this is not to say we are isolating that area and that no other areas of the core or other muscle groups are being worked. There will always be secondary and assisting muscles working to help focus on the target area. For example, since we now know that core engagement always requires the wrapping of the TVA, even if we are "targeting" the Rectus Abdominus (RA), we are also still working the Transverse Abdominus (TVA) to properly engage the core.

The action of the core will help to solidify who the exercise might benefit most for some special circumstances. For example, those with low back pain would benefit most from improving core stabilization alone before progressing to multiple factors, like adding in flexion, extension, or rotation. We want to build strength and ability in all actions of the core, but stabilization is a good place to start, especially when still practicing how to regulate IAP with a properly engaged core.



In your next check-in, feel free to ask where they feel your ability level is at in relation to the core exercises or if you feel like you can gauge it yourself then go right ahead. These would all be great exercises to send so I can let you know if you gauged correctly or what you can improve on form wise.

Click on any exercise to see a video demonstration!

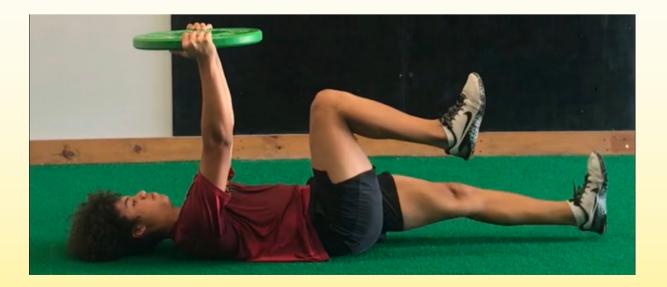
Exercise Name	Difficulty	Target Area(s)	Core Action
Knee Plank	Beginner	Entire RA	Stabilization
Lying Leg Raises	Beginner	Lower RA	Stabilization
Plank Shoulder Taps	Beginner	Entire RA	Stabilization
Quadruped Hold	Beginner	Entire RA	Stabilization
Quadruped to Plank	Beginner	Entire RA	Stabilization
Superman Raises	Beginner	Erectors	Extension
Bicycle Crunch	Beginner	Entire RA, Obliques	Stabilization, Rotation, Flexion
Cross-Body Elbow-to-Knee Crunch	Beginner	Entire RA, Obliques	Stabilization, Rotation, Flexion
Slow Mountain Climbers	Beginner	Entire RA	Stabilization, Flexion
Deadbug	Beginner	Entire RA	Stabilization
Straight-Leg Sit Up	Beginner	Entire RA	Flexion
Side Lying Lateral Crunch	Beginner	Obliques	Flexion
Bosu Ball Sit-Up	Beginner	Entire RA	Flexion
Swiss Ball Crunch	Beginner	Upper RA	Flexion
High Plank Hold	Intermediate	Entire RA	Stabilization
High Side Plank Hold	Intermediate	Obliques	Stabilization
Low/Forearm Side Plank Hold	Intermediate	Obliques	Stabilization
Rainbow/Rocking Planks	Intermediate	Entire RA, Obliques	Stabilization, Rotation
Side Plank T-Spine Rotations	Intermediate	Entire RA, Obliques	Stabilization, Rotation

Click on any exercise to see a video demonstration!

Exercise Name	Difficulty	Target Area(s)	Core Action
<u>Side Plank Hip Drops</u>	Intermediate	Entire RA, Obliques	Stabilization, Lateral Flexion
Plank DB Pull Throughs	Intermediate	Entire RA, Obliques	Stabilization, Rotation
Plank DB Rows	Intermediate	Entire RA, Obliques	Stabilization, Rotation
Plank Toe Taps	Intermediate	Entire RA	Stabilization
Plank Lateral Walk	Intermediate	Entire RA	Stabilization
Plank to Downdog	Intermediate	Entire RA	Stabilization
Quadruped Crawl	Intermediate	Entire RA	Stabilization
Quadruped Lateral Crawl	Intermediate	Entire RA	Stabilization
Palloff Press	Intermediate	Entire RA, Obliques	Stabilization, Rotation
Half Kneeling Pallof Press	Intermediate	Entire RA, Obliques	Stabilization, Rotation
Superman Holds	Intermediate	Erectors	Extension
Low Back Extensions	Intermediate	Erectors	Extension
Quick Mountain Climbers	Intermediate	Entire RA	Stabilization, Flexion
Band-Resisted Deadbug	Intermediate	Entire RA	Stabilization
Barbell Single-Leg Leg Lower	Intermediate	Lower RA	Stabilization
Cable Crunch	Intermediate	Entire RA	Flexion
45-Degree-Bench Lateral Crunch	Intermediate	Obliques	Flexion
Single-Leg Alternating V-Up	Intermediate	Entire RA	Flexion
Hanging Single-Leg Knee Raise	Intermediate	Lower RA	Flexion

Click on any exercise to see a video demonstration!

Exercise Name	Difficulty	Target Area(s)	Core Action
Hanging Knee Raise	Intermediate	Lower RA	Flexion
Low/Forearm Plank Hold	Advanced	Entire RA	Stabilization
Copenhagen Plank	Advanced	Obliques	Stabilization
Ab Wheel Roll Out	Advanced	Entire RA	Stabilization
Barbell Single-Leg Leg Raise	Advanced	Entire RA	Stabilization
DB Deadbug	Advanced	Entire RA	Stabilization
Barbell Leg Lower	Advanced	Lower RA	Stabilization
Plate-Overhead Straight-Leg Sit Up	Advanced	Entire RA	Flexion
<u>V-Up</u>	Advanced	Entire RA	Flexion
Boat Pose Hold	Advanced	Entire RA	Stabilization
Hanging Oblique Raise	Advanced	Obliques, Lower RA	Flexion
Hanging Straight-Leg Leg Raise	Advanced	Lower RA	Flexion
Hanging Toes to Bar	Advanced	Entire RA	Flexion
Hollow Hold	Advanced	Entire RA	Stabilization



FURTHER ASSISTANCE

Use the following resource for **Pelvic Floor Physical Therapists**, and just enter zip code:

<u>Link</u>

Use the following resource for **Functional Movement Certified Therapy**, and just enter zip code:

<u>Link</u>

Use the following resource for a **broad scope of Physical Therapists**, and just enter zip code and practice focus: <u>Link</u>



REFERENCES

Beryl, Kennedy. "A Muscle-Bracing Technique Utilizing Intra-Abdominal Pressure to Stabilize the Lumbar Spine." Australian Journal of Physiotherapy, vol. 11, no. 3, 1965, pp. 102–106., doi:10.1016/s0004-9514(14)60955-7.

Bower, Hannah. The Functional Core. February 2019 ed.

Cates, Brooke. "Proprietary Bloom Method." The Bloom Method, thebloommethod.com/.

Cholewicki, Jacek, et al. "Intra-Abdominal Pressure Mechanism for Stabilizing the Lumbar Spine." Journal of Biomechanics, vol. 32, no. 1, 1999, pp. 13–17., doi:10.1016/s0021-9290(98)00129-8.

Horschig, Aaron. "How to Use a Weightlifting Belt." Squat University, 27 May 2016, squatuniversity.com/2016/05/27/how-to-use-a-weightlifting-belt/.

McGill, Stuart. Low Back Disorders: Evidence-Based Prevention and Rehabilitation. Third ed., Human Kinetics Publishers, 2015.

Moghadam, Navid, et al. "Comparison of the Recruitment of Transverse Abdominis through Drawing-In and Bracing in Different Core Stability Training Positions." Journal of Exercise Rehabilitation, vol. 15, no. 6, 2019, pp. 819–825., doi:10.12965/jer.1939064.352.

Sapsford, Ruth. "Rehabilitation of Pelvic Floor Muscles Utilizing Trunk Stabilization." Manual Therapy, vol. 9, no. 1, 2004, pp. 3–12., doi:10.1016/s1356-689x(03)00131-0.