

TA & Engaging Deeper Abs



Lesson Overview

In this lesson, we focus specifically on the transversus abdominis (TA) and how to teach engagement of the deeper abdominals.

Objective

Become more deeply knowledgeable about the TA and how to effectively teach engagement of the deeper abdominals.

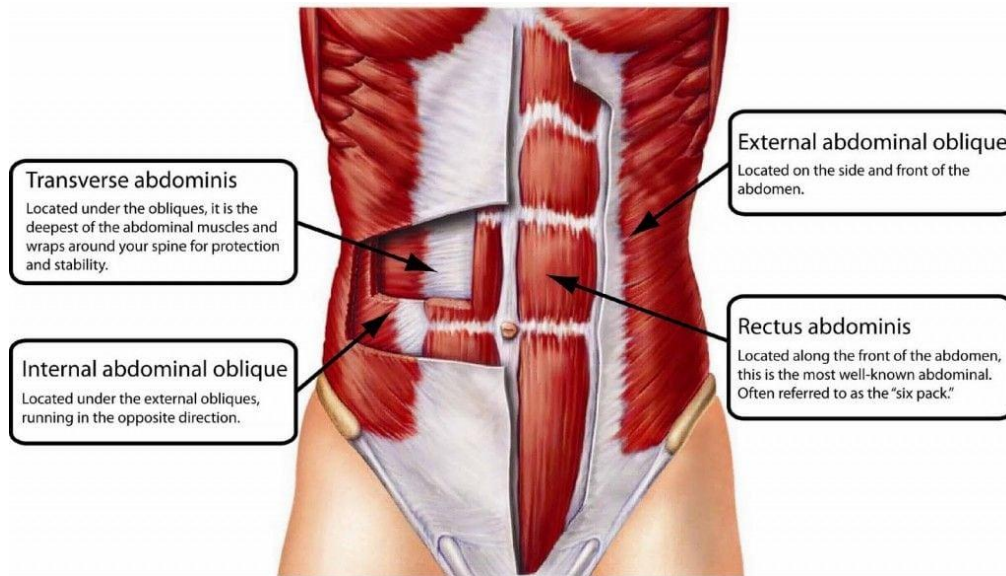
Description

Describe the location of the transversus abdominis (TA) and its function. Explain the effect of engaging/contracting the TA. Provide exercises that can help students to identify the TA, and explain a physical clue that may indicate deeper abdominals are not being engaged.

Questions Answered Here

- 1. Where is the transversus abdominis (TA) located?*
- 2. What is its function?*
- 3. What is the effect from engaging/contracting the TA?*
- 4. How can identifying the sensation of contracting deeper abdominals benefit students?*
- 5. What are some exercises that can help to identify the TA?*
- 6. When performing a lower abdominal exercise such as a leg lift, what clue can indicate the deeper abdominals are not engaged?*

About the Transversus Abdominis (TA)



Key Points

- A significant amount of expert teaching around core recruitment and strengthening is focused on the transversus abdominis (TA).
- The TA is the deepest of the abdominal muscles.
- "There is one transverse muscle on each side joined by a fascial sheet that connects them and allow them to act as one solid muscle." (Core Walking)
- The TA wraps around the abdomen between the lower ribs and top of the pelvis.
- The TA supports the abdominal wall, aids forced expiration, and stabilizes the spine and pelvis before movement of the limbs.
- The Transverse Abdominis helps with overall core stability.
- When the TA engages / contracts, it has a "corset-like" effect, slightly narrowing the waist and flattening the lower abdomen.
- The following video is less than a minute and shows the specific anatomical origin and insertion points for the TA: [Transversus Abdominis: Anatomy Online Course](#)

The Ache After Laughing Hard and The Focus in Kapalabhati

When you laugh until your belly aches, you are feeling your TA. It is also the muscular focus on [Kapalabhati Pranayama](#). When properly toned, this muscle keeps your organs in place while giving support to the lumbar spine. When habitually gripped, it compresses the organs and leads to abdominal hernias, urinary incontinence, and digestive problems. – Mark Stephens

Finding & Engaging the TA



Identifying the Deeper Abdominals

- Identifying the TA can be a fundamental step in learning to properly activate the core. And yet, it can be challenging for students to learn to feel their deeper abdominals.
- Learning to contract the TA can be vital for students who – thinking they are engaging their core – are actually just pulling up their diaphragm and abdominal contents.
- Engaging the deep abdominals is typically easiest on exhale.
- Laughing and coughing use the deeper abdominals.

You Cannot Strengthen a Muscle Your Brain Cannot Activate

Restoring the recruitment patterns (order in which different muscles contract) of the core is different than most exercises you will have been used to in the past. The first step is to learn to isolate the [TA], to train it to contract. Research has clearly shown that the better you are at isolating this muscle, the faster it will integrate into functional tasks. The second step is to strengthen or teach it to co-contract with the other muscles of the core, the deep multifidus and the pelvic floor as you breathe. The final step is to co-contract the entire core (connect to the entire core) and use this connection in functional activities. You cannot strengthen a muscle your brain cannot activate. – Diane Lee & Assoc Physiotherapy

Contracting the TA vs. Sucking In

For many people when they are told to contract the abdominals, what they really are doing is sucking in, pulling up their diaphragm and bringing the abdominal contents with it. This is not muscle work. – Align for Health

Exercises to Engage the Deeper Abdominals



- Breathing exercises can help students gain awareness of their deeper abdominals. Such practices include focusing on the exhalation and Kapalabhati Pranayama.
- A common teaching is to lie on the back with feet on the floor. Palpate for the hip points. Then lengthen the spine to draw the hip points toward one another.
- If the belly poofs out, it may be a sign the student is engaging only the rectus abdominis (the more superficial abdominals).
- Another exercise is to sit tall and, on the exhale, hug the waist in from the front, back and sides. Release on the inhale.
- Another consideration is Pelvic Tilts (on back or against wall) combined with TA Awareness teachings.



Building Abdominal Awareness Through Breathing Exercises

Tuning in to your breath through yoga practice offers [a] way to access and tone the abdominals. Many yoga teachers find it most effective to teach ab work and awareness through breathing exercises... Kathleen Miller, a yoga teacher and therapist in the Viniyoga tradition, says that "many people find it difficult to access the [lower belly] area from the pubic bone to the navel." To help students awaken this "sleepy area," she has them lie on their backs with their legs bent, feet on the floor and one hand just above the pubic bone. She then has them tune in to their breath and contract this area on an exhalation, feeling how the navel moves back toward the spine, stabilizing the pelvis and lengthening the lower back. "In time," she explains, "people begin to feel that every exhalation can be an abdominal event." – Carol Krucoff

Finding the TA + Learning to Sit Properly

Michael Feldman, a certified Rolfer in Sausalito, California, who teaches functional-anatomy workshops, suggests that instructors teach people how to engage the transversus by first palpating the hip points at the front of the pelvis, then asking the person to “draw the two hip points together by lengthening the back and hollowing the belly.” Another important aspect is finding the sitting bones, “so people can learn to sit on them properly,” Feldman says. “One reason the abdominals are so weak is that most people sit with their backs rounded, which makes the abs go slack.” – Carol Krucoff

Drawing Hip Points Together

Start lying on your back in Savasana, with your heels about as wide apart as they would be in Mountain Pose... Bring your hands to your two pelvic points... and on an exhale engage the muscle between them, drawing your pelvic points toward each other... You might also find it helpful to gently use your hands to narrow your pelvic points. Try to keep that engagement in your deep low belly on your inhales and use each exhale to enhance, or reestablish, the engagement. Let this action—the narrowing of your pelvic points—initiate the internal rotation of your thighs as you flex your feet and turn your toes to point up toward the ceiling... Keep your heels on the floor, but imagine that you’re going to pick them up off of the floor. This preparation will encourage the activation of your transversus abdominis. – Kat Heagberg

Checking for the Rectus Abdominis Poking Out

When performing a lower abdominal exercise such as the leg lift, you can tell if you are not using the transversus abdominis if your rectus abdominis (your six-pack muscle) pokes out and looks like a bread loaf. Try contracting the muscle before you lift the legs and see if the “loaf” stays flat and engaged. – Align for Health

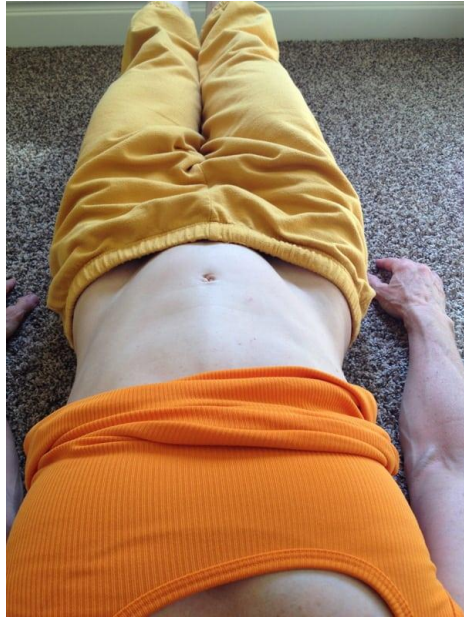
Sitting Up & Tightening the Corset

To build awareness of your transversus abdominis try this: Sit tall and take a deep breath. On the exhale hug your waist in from the front, side and back at the same time, as if you were tightening the corset around your torso, on the inhale release. You can do that action in any yoga pose and it will help you develop awareness and stability in your core. – Olga Kabel

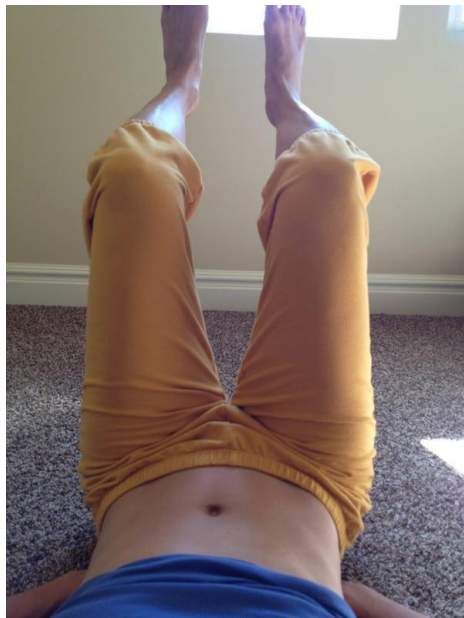
Are Deeper Abs Engaged?

These photos from Align for Health clearly demonstrate a “loaf” vs. the lower abdominals appearing flat and engaged.

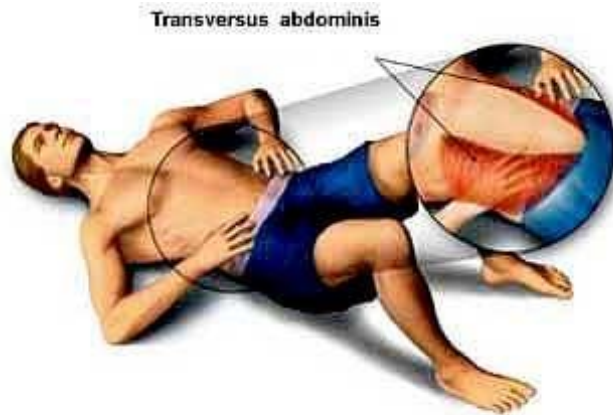
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Here she is able to lift her legs by performing a transversus abdominal contraction prior to the lift. Look, no “bread loaf!” – Align for Health



Using Breath to Strengthen TA



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This comes from Tracy Weber, *Want to Strengthen Your Core? Start with the Breath*.

This simple exercise strengthens the girdling muscles that stabilize the lower back and pelvis. You can do the motion with every breath in your yoga practice, but I like to teach it lying on the floor, where you can more easily feel the motion of the spine and you aren't distracted by other movements.

1. Lie on the floor, with your knees bent and your feet flat on the floor. Notice how this position flattens your lower back curve.
2. Place your palms on your belly.
3. As you inhale, allow your belly to soften.
4. As you exhale, imagine that you are closing the zipper on a too-tight pair of jeans. Pull in your belly starting at the bottom (the pubic bone) and contract upward toward the bottom of your ribs. You might feel your belly hollow out and your lower back press toward the floor.
5. On the following inhale, imagine that you are breathing in from your collar bones down. Keep your belly pulled in strongly for the first half of the inhale, and then slowly allow it to relax in the second half.
6. With each following exhale, close the zipper again.

Weber gives these additional excellent teaching points to support your student in effectively practicing this exercise:

- Make the contraction just strong enough to feel the muscles—not so strong as to affect the breath or feel overly tiring. (“On a scale of 1 – 10, make the abdominal contraction on exhale about a 6.”)
- Relax the rest of your body. Release any tension in the neck, shoulders, jaw, and arms.
- Once the student can master the exercise on her back, try it seated; ultimately, “integrate it into every breath of your asana practice.”

Online Resources

Please see [online version](#) for links to more resources.