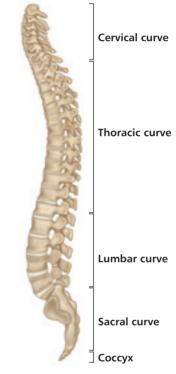
4

Muscles of the Spine

Spinal Functions

The spine is the center of the body's universe, from a mechanical point of view as well as an energetic one, since the main chakras also exist here. The spine is active in all asanas, even in a restful state like *Savasana*, where it acts as a conduit for subtle energies and messaging. The spine supports and balances the trunk and head in standing, sitting, kneeling, backbending, and arm-balance postures. It connects the upper and lower extremities and protects the spinal cord, which merges with the brain. Along with the articulating ribs, the thoracic spine houses the heart and lungs, and the lumbar/sacral areas protect sexual and other organs.

The muscles that work the spine stabilize and move its four different areas: cervical, thoracic, lumbar, and sacral (minimal movement here). The fifth section, the coccyx, is immovable because its vertebrae are fused, but it does provide support and protection as weight is transferred while sitting. Thought of as the remnants of a tail in the evolutionary process, the coccyx maintains another purpose in the human body—that of attachment points of muscles and ligaments, mostly of the pelvic floor.



Spine, lateral view.

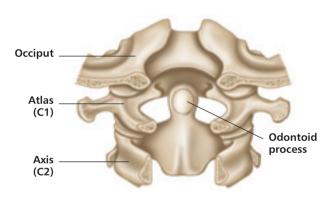
The Concise Book of Yoga Anatomy

Spinal Actions

The top three mobile areas of the spine can do the actions of flexion, extension, lateral flexion to the right and left, and rotation to the right and left. The spine is also capable of hyperextension (backbending). There are, however, some limitations of spinal movements.

Cervical—Considered the most movable area of the spine as it curves anteriorly (lordotic) to balance the weight of the head, the top two vertebral joints are limited in some joint actions. The atlanto-occipital joint (between the skull and the C1 vertebra, called the "atlas") can flex and extend (nodding the head), with very little lateral flexion and no rotation. The atlanto-axial joint (between C1, atlas, and C2, axis) mostly rotates. All other cervical vertebral joints (C3–C7) are able to move freely in all three planes if there are no complications.

As in any yoga posture, a main goal is to create space in the body, not condense it; that is why I instruct a student to extend, not hyperextend, the posterior neck position and to not compress the vertebrae.

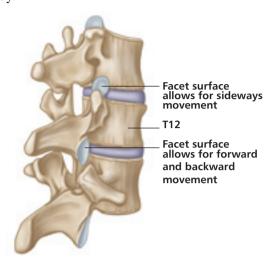


Atlanto-occipital joint.

Thoracic—This is the longest section of the spine, with twelve vertebrae. Its main limitation is hyperextension (arching the back, as in *Ustrasana*, camel pose, see below). The posterior processes of the lower vertebrae in this region begin to slant downward, so when a backbend is performed, one bony process may come in contact with the next. This is very important for yoga practitioners to understand: as the back arches, it cannot be forced into a boneagainst-bone position.

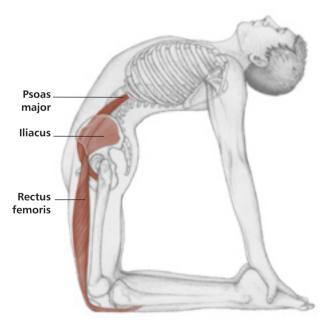
Each person is different, but most have a natural kyphotic curve in this section (posterior) and a backbend creates the opposite. Backbends are aided more by the lordotic areas of the spine (the lumbar and cervical areas), as well as by the upper part

of the thoracic region, where bony limitation is not as severe. Care and correct explanations must be provided to engage the proper muscles for support of these regions and allow openness of the front of the body.



The change in angle between the facet joints lends itself to the movements that are possible at each section of the vertebrae.

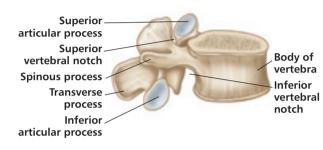
Feeling length in the spine as the back bridges will help one perform with more ease and also protect the discs of the spine (cartilage between the vertebrae).



Ustrasana (Camel Pose) Level I-II: anterior muscles pictured are stretching, as posterior muscles located along the spine support the back-bending. Notice the position of the pelvis (in line with the knees) and the cervical area of the spine supporting, not dropping, the weight of the head.

Lumbar—This section of the spine has an anterior curve and contains the five largest and thickest spinal vertebrae. The main limitation is rotation, because of the shape of the bones. The spinal (posterior) processes are bulky, and the facets (articulating surfaces) are orientated in such a way as to limit turning. Once again, this knowledge is of the utmost importance, especially when a spinal twist is performed.

Many injuries of the lower back in yoga can happen because a twist is forced more through the lumbar spine than through the thoracic spine. Overstretching in spinal flexion is also a risk factor.



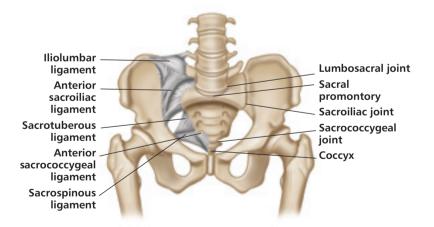
Lumbar vertabra (L3) lateral view.

Sacral—By the end of puberty, four to five vertebrae in this part of the spine have fused together, causing the formation of the sacrum bone, which solidifies through the years and bears the weight of the spinal column. The vertebrae themselves do not move, but at the junction of the sacrum with the pelvis (the sacroiliac, or SI, joint) there is a gliding motion. This is subtle and involuntary; it happens naturally in childbirth as ligaments supporting the joint begin to stretch when the hormone relaxin is released.

Extreme overstretching in yoga (as in Sitting Forward Bend, *Paschimottanasana*) can lead to SI joint discomfort, as ligaments cannot easily "bounce back" to their original length. The area becomes less stable, with resulting inflammation and pain. Sitting too much can also irritate this region.

Actions specific to this pelvic area are called "nutation" (forward motion of sacrum base) and "counter-nutation" (backward motion of sacrum base). They should not be confused with pelvic rotation or tilt, although they can happen along with these actions.

In conclusion, the sacral area of the spine, although not very movable, can be irritated. This is seen in more advanced yoga postures, and one should take care in intense forward-bending poses, twists, wideleg straddles, and even backbends.



Ligaments around the pelvis and the sacroiliac joint.

54





prasarita = spread; pado = feet; tan = expand; (pra-sa-REE-tah pah-doe-tahn-AHS-anna)

Awareness: Breath, expansion, length, stretch, calming, introspection.

Action and Alignment: Spine extension, shoulders and girdle neutral, hip flexion and abduction, knee extension, hamstrings and calf stretch, spreads the SI joint area. Top of the pelvis is brought forward as the hips flex.

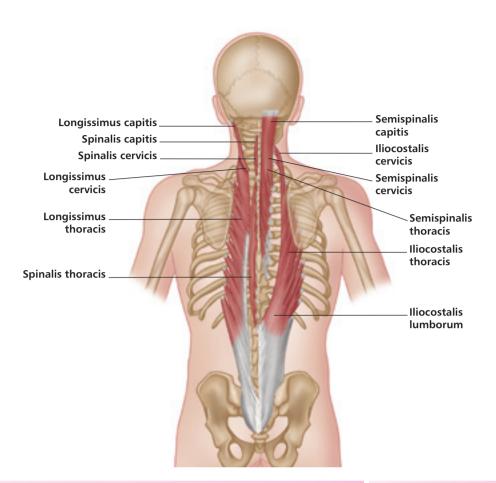
Technique: Stand in *Tadasana*, facing the long edge of the mat; open the legs wider than the shoulders, approximately one leg length apart. With hands on hips, inhale and lift the torso, exhale and fold forward from the hips. When the spine is parallel to the floor, take another full breath, extending out and engaging the core. On an exhale, release all the way down, hands coming to a block or the floor. Feel the energy coming from the earth, through the feet and up the legs, engaging the quadriceps to allow the hamstrings to stretch.

Helpful Hints: Once folded forward, there are many variations of this posture, increasing length and space in both the front and the back of the body. Wide-leg Down Dog, spinal twists, and deep lunges can be added for extra benefit. This pose is used to counteract a series of standing asanas.

Counter Pose: *Tadasana* with a slight backbend, hands on sacrum.

Just as the spine is central to the body, so it is to yoga.

The following sections present the major muscles working the spine, with related asanas illustrated and explained in detail.



Latin, erigere, to erect; spinae, of the spine; sacrum, sacred; spinalis, spinal.

The erector spinae, also called "sacrospinalis," comprises three sets of muscles organized in parallel columns. From lateral to medial, they are the iliocostalis, longissimus, and spinalis.

Origin

Slips of muscle arising from the sacrum. Iliac crest. Spinous and transverse processes of vertebrae. Ribs.

Insertion

Ribs. Transverse and spinous processes of vertebrae. Occipital bone.

Action

Extends and laterally flexes vertebral column (i.e., bending backward and sideways). Helps maintain correct curvature of the spine in erect and sitting positions. Steadies the vertebral

column on the pelvis during walking.

Nerve

Dorsal rami of cervical, thoracic, and lumbar spinal nerves.

Basic functional movement

Example: Keeps back straight (with correct curvatures), and therefore maintains posture.

Movements that may injure this muscle

Whiplash. Lifting without bending the knees or keeping the back erect. Holding an object too far in front of the body. In yoga, any hyperextended position that is taken too far for that particular person. Forward bending to the extreme (as in *Paschimottasana*) may overstretch this muscle.

Common problems when muscle is chronically tight/ shortened

Headache and neck pain.

Asanas that heavily use these muscles

Strengthening: Most sitting and standing postures where the spine is extended in opposition to gravity, such as *Virabhadrasana I, II, III* (Warrior). Backbends, as hyperextension of the spine occurs. *Parighasana, Trikonasana, Utthita Parsvakonasana*, and *Viparita Virabhadrasana* (Reverse Warrior)—all lateral flexion postures. *Tadasana* on return to standing.

Stretching: *Balasana* (Child's Pose), *Halasana* (Plow). Side Bends.

56

Virabhadra = warrior or superbeing from Indian mythology; (veer-ah-bah-DRAHS-anna)

Awareness: Breath, space, strength, stretch, rib cage expansion, balance, openness, solidarity.

Action and Alignment: Spine extension, shoulder abduction, shoulder girdle stabilization, hip and knee flexion (front leg), hip extension and abduction, knee extension (back leg). Pelvis open, front knee directly over ankle, back foot at approximately a 90-degree angle from front, front heel in line with middle of back foot arch.

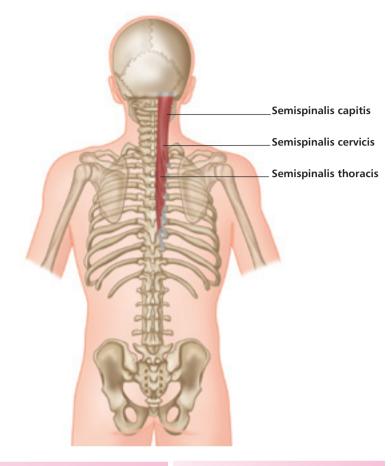
Technique: Stand in *Tadasana*, hands on hips; step back with one leg and position the lower body as stated above, bending the front knee. Inhale and extend the arms out to the sides, eyes forward over the front arm with a strong focus. Engage the core and lift the pelvic floor.

Helpful Hints: A powerful posture that balances the body, it can be done during the beginning to middle of class. This asana can also transition from or to others, such as Warrior I and Triangle. Focus on breath, energy, and extension of the body. Allow the tailbone to drop as the belly lifts; this will protect the lower spine. Make sure the front knee is facing forward and not hiding the big toe, creating slight outward rotation of the front hip. Press the outside edge of the back foot into the ground and pull energy from the ground up. The feet are the foundation.

Counter Pose: Switch sides, then *Tadasana* or *Prasarita Padottanasana* to counter.

SEMISPINALIS CAPITIS, CERVICIS, THORACIS

Transversospinalis (meaning "across the spine") is a composite of three small muscle groups situated deep to erector spinae. However, unlike erector spinae, each group lies successively deeper below the surface, rather than side by side. From the most superficial to the deepest, the muscle groups are semispinalis, multifidus, and rotatores. Their fibers generally extend upward and medially from the transverse processes to the higher spinous processes and are sometimes grouped as the "deep posterior muscles." The combined actions are mostly rotation and extension, with some lateral flexion.



Latin, *semispinalis*, half-spinal; *capitis*, of the head; *cervicis*, of the neck; *thoracis*, of the chest.

Origin

Transverse processes of cervical and thoracic vertebrae (C1–T10).

Insertion

Between nuchal lines of occipital bone and spinous processes of the cervical vertebrae and upper four thoracic vertebrae (C2–T4).

Action

Capitis: Most powerful extensor of the head and assists in rotation. Cervicis and thoracis: Extend cervical and thoracic parts of vertebral column. Assist rotation of cervical and thoracic vertebrae.

Nerve

Dorsal rami of cervical and thoracic spinal nerves.

Basic functional movement

Example: Looking up or turning the head to look behind.

Movements that may injure this muscle

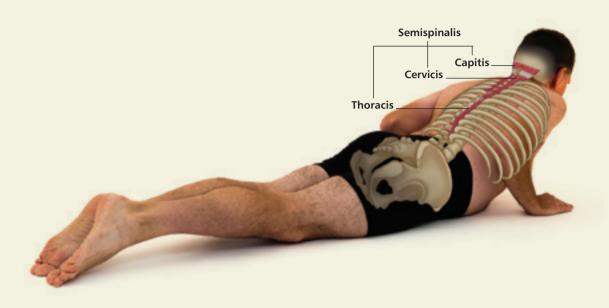
Whiplash. In yoga, forcing hyperextension and thoracic/cervical rotation.

Asanas that heavily use these muscles

Strengthening: Bhujangasana (Cobra Pose). Salabhasana (Locust Pose). Matsyasana (Fish Pose). All twisting or revolved asanas. Virabhadrasana III (Warrior III).

Stretching: *Balasana* (Child's Pose). *Halasana* (Plow). Twists.

58



bhujanga = serpent; (boo-jan-GAHS-anna)

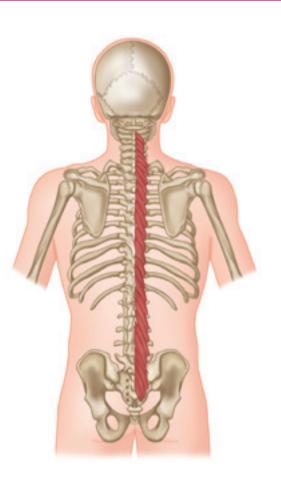
Awareness: Breath, strength, stretch, stimulation of core, expansion of heart and lungs (chakra 4).

Action and Alignment: Spine hyperextension, shoulder extension to flexion, shoulder girdle retraction, hip extension. Core and leg engagement, hands directly under the shoulders.

Technique: Lie on the belly, with the hands and elbows into the rib cage. The legs come together and extend, pressing the feet into the floor and engaging the core toward the spine to protect the lumbar area. Lift the torso up from the floor, with the hip bones grounded into the mat. The gaze is forward. The hands are not used to press into the floor; the spinal extensors must contract to lift the upper body against gravity for full benefit.

Helpful Hints: Experience the "baby cobra" first, where the hands can be lifted off the floor to make sure that the spinal extensors are doing the work and not the arms. Once this is established, the hands can then be used to press into the floor and increase the stretch of the front of the body, while the core remains engaged. This is a basic backbend and a good warm-up for more advanced positions; it is included in Sun Salutation to warm up the body. If the lumbar spine is compromised, separate the feet and engage the core more effectively.

Counter Pose: *Balasana* (see Chapter 8).



Latin, *multi*, many; *findere*, to split.

This muscle is the part of the transversospinalis group that lies in the furrow between the spines of the vertebrae and their transverse processes.

Origin

Posterior surface of sacrum, between the sacral foramina and posterior superior iliac spine. Mammillary processes (posterior borders of superior articular processes) of all lumbar vertebrae. Transverse processes of all thoracic vertebrae. Articular processes of lower four cervical vertebrae.

Insertion

Parts insert into the spinous process two to four vertebrae superior to the origin; overall, this includes spinous processes of all the vertebrae from the fifth lumbar up to the axis (L5–C2).

Action

Protects vertebral joints from movements made by the more powerful superficial prime movers. Extension, lateral flexion, and rotation of vertebral column.

Nerve

Dorsal rami of spinal nerves.

Basic functional movement

Example: Helps maintain good posture and spinal stability during all movements/asanas.

Movements that may injure this muscle

Lifting without bending the knees or keeping the back erect. Holding an object too far in front of the body when lifting. In yoga, extreme bending or twisting.

Asanas that heavily use this muscle, mainly for stabilization

All standing, kneeling, sitting, backbending, and twisting or revolved asanas.



Latin, rota, wheel.

These small muscles are the deepest layer of the transversospinalis group.

Origin

Transverse process of each vertebra.

Insertion

Base of the spinous process of adjoining vertebra above.

Action

Rotate and assist in extension of vertebral column.

Nerve

Dorsal rami of spinal nerves.

Basic functional movement

Helps maintain good posture and spinal stability during standing, sitting, and all movements/asanas.

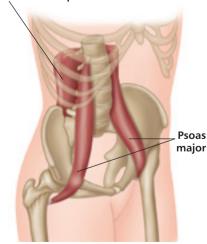
Movements that may injure this muscle

Lifting without bending the knees or keeping the back erect. Holding an object too far in front of the body when lifting. In yoga, twisting the lumbar spine too far is counterproductive.

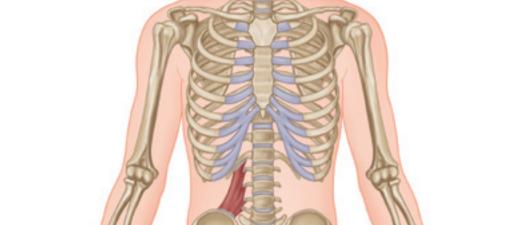
Asanas that heavily use these muscles

All standing, sitting, and twisting or revolved asanas, both strengthening and stretching

Transversospinalis



Note the stabilizing effect of the lumbar spine posterior muscles.



Latin, quadratus, four-sided; lumborum, of the loins.

A stabilizing muscle.

Origin

Iliac crest. Iliolumbar ligament (the ligament from the fifth lumbar vertebra to the ilium).

Insertion

Twelfth rib. Transverse processes of upper four lumbar vertebrae (L1–L4).

Action

Laterally flexes vertebral column. Fixes the twelfth rib during deep respiration (helps stabilize the diaphragm for singers exercising voice control). Helps extend lumbar part of vertebral column and gives it lateral stability.

Nerve

Ventral rami of the subcostal nerve and upper three or four lumbar nerves (T12, L1, L2, L3).

Basic functional movement

Example: Bending sideways from sitting to pick up an object from the floor.

Movements that may injure this muscle

Bending sideways or lifting from a sideways position too quickly.

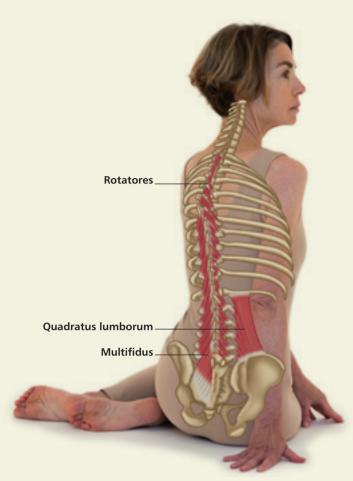
Common problems when muscle is chronically tight/ shortened

Referred pain to hip and gluteal area, as well as lower back.

Asanas that heavily use this muscle

Strengthening: Bharadvajasana. Viparita Virabhadrasana. Parighasana. Utthita Parsvakonasana.

Stretching: *Tadasana* with Side Bend. *Halasana* (Plow).



Bharadvaja = legendary sage; (bah-ROD-va-JAHS-anna)

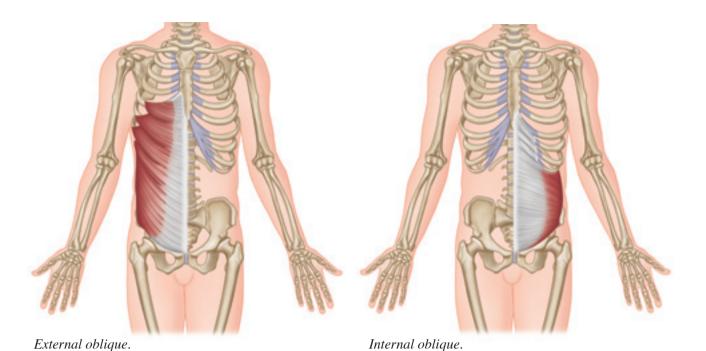
Awareness: Breath, stretch, cleansing, release.

Action and Alignment: Spinal extension and rotation, shoulder and girdle stabilization, elbow extension, hip and knee flexion. Firm legs, and pelvic and arm support.

Technique: Sit with the legs tucked to one side. Engage the core as the spine lifts and twists away from the knees. With one hand on the outside knee, place the other hand behind and close to the spine on the floor. The gaze can follow the twist, provided it does not compromise the neck.

Helpful Hints: One of the easier twists, *Bharadvajasana* can be done after warming up or before cooling down. The spine can twist best when each vertebra is stacked on top of the other first, before rotation begins. A blanket under either hip can help even the vertebrae as the sit bones anchor toward the floor. The use of a prop under the twisting side may relieve discomfort in the lower back. Variations can be performed with the arms and legs.

Counter Pose: *Baddha Konasana* (see Chapter 8)



Latin, obliquus, diagonal, slanted.

The posterior fibers of the external oblique are usually overlapped by the latissimus dorsi, but in some cases there is a space between the two, known as the "lumbar triangle," situated just above the iliac crest. *The lumbar triangle is a weak point in the abdominal wall.* The internal oblique is considered a strong stabilizer as well as a mover.

Origin

External oblique: Lower eight ribs. Internal oblique: Iliac crest. Lateral two-thirds of inguinal ligament. Thoracolumbar fascia (sheet of connective tissue in lower back).

Insertion

External oblique: Anterior half of iliac crest and into an abdominal aponeurosis that terminates in the linea alba (a tendinous band extending downward from the sternum).

Internal oblique: Bottom three or four ribs and linea alba via an aponeurosis.

Action

Compresses abdomen, helping to support the abdominal viscera against the pull of gravity. External oblique: Contraction of one side alone bends the trunk laterally and rotates it to the opposite side (contralateral). Internal oblique: Contraction of one side bends the trunk laterally and rotates it to the same side (ipsilateral).

When right and left sides contract simultaneously (both external and internal obliques) they aid in flexion.

Nerve

External oblique: Ventral rami of thoracic nerves T5–T12. Internal oblique: Ventral rami of thoracic nerves T7–T12, ilioinguinal and iliohypogastric nerves.

Basic functional movement

Example: Digging with a shovel, raking, twisting.

Common problems when muscles are weak

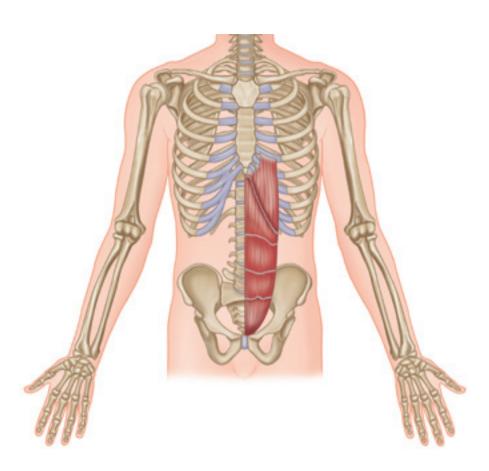
Injury to lumbar spine, because abdominal muscle tone contributes to stability of lumbar spine.

Asanas that heavily use these muscles

Strengthening: Any asana that laterally bends, flexes, or rotates the spine, such as Trikonasana, Parighasana, Utthita Parsvakonasana, Ardha Matsyendrasana, Parivrtta Trikonasana. Parivrtta Janu Sirsasana and Baddha Parsvakonasana.

Stretching: Side Bends. Setu Bhandasana (Bridge).

 4



Latin, *rectus*, straight; *abdominis*, of the belly/stomach.

The rectus abdominis is divided into three or four bellies by tendinous bands, each sheathed in aponeurotic fibers from the lateral abdominal muscles. These fibers converge centrally to form the linea alba. Situated anterior to the lower part of the rectus abdominis is a frequently absent muscle called the "pyramidalis," which arises from the pubic crest and inserts into the linea alba. It tenses the linea alba, for reasons unknown. This and the upper rectus abdominis are associated with the six-pack striation seen in conditioned athletes.

Origin

Pubic crest and symphysis (front of pubic bone).

Insertion

Xiphoid process (base of sternum); fifth, sixth, and seventh costal cartilages.

Action

Flexes lumbar spine. Depresses rib cage. Stabilizes the pelvis during walking.

Nerve

Ventral rami of thoracic nerves T5–T12.

Basic functional movement

Example: Initiating getting out of a low chair. Rolling up from a supine position.

Common problems when muscle is weak

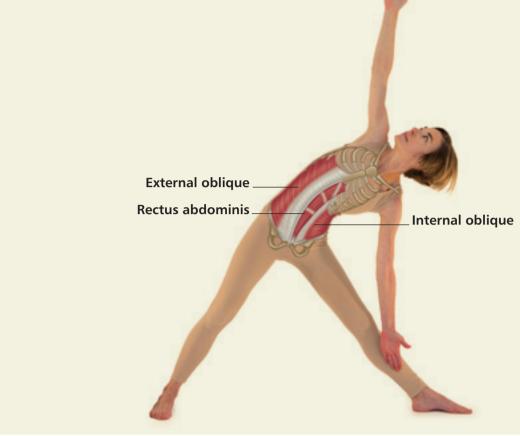
Injury to lumbar spine, because abdominal muscle tone contributes to stability of lumbar spine.

Asanas that heavily use this muscle

Strengthening: Trikonasana. Apanasana. Navasana. Agni Sara. Utkatasana and others using rectus abdominis as a stabilizer of the spine.

One-leg standing asanas to help stabilize spine and pelvis: *Virabhadrasana III. Vrksasana*.

Stretching: *Setu Bhandasana* (Bridge). Backbends.



trikona = three angles or triangle; (tree-kone-AHS-anna)

Awareness: Breath, strength, stretch, expansion, balance, support, stimulation, power, therapeutic, centering.

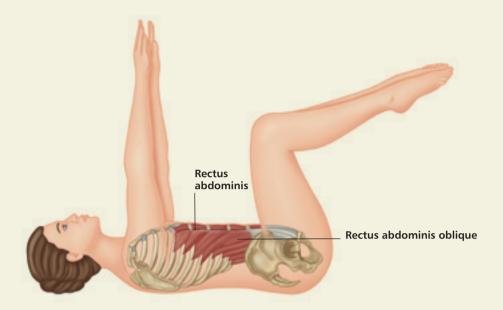
Action and Alignment: Spine extension, shoulder abduction, shoulder girdle stabilization, elbow and wrist extension, core engagement, pelvic stability, hip flexion and outward rotation (front leg), hip extension and abduction (back leg), knee flexion and extension, ankle supination of back foot. Shoulders stacked one over the other, heel of front leg aligned with center of back foot.

Technique: From Tadasana with hands on hips, step back with one foot into Virabhadrasana II. Extend the front knee without locking, and center the pelvis. Engage the core and lift the pelvic floor. Reach the front arm and torso forward as the pelvis pushes back. Once this position is reached, drop the bottom hand to the inside of the leg or block as the top arm extends to the sky. Keep the head in line with the spine. Hold for up to one minute.

Helpful Hints: The body is extended as if supported between two planes; try the asana with the back of the body against a wall to experience this. Provided the neck is not compromised, the gaze can be up toward the top hand (some practitioners might choose to rest the top hand on the sacrum instead). The hamstrings will be stretched, especially in the back leg; softening the knees will help release the tension. Inhale to lift up and out of the pose, then repeat on the other side. The asana is best when done at the middle of class, where centering is needed.

Counter Pose: Viparita Virabhadrasana (see below, under "Psoas Major").

 66



Another asana that primarily targets the rectus abdominis is *Apanasana* (Wind Reliever). It is similar to the Pilates 100 position. The technique described below will explain the differences.

apa = away; apana = one of the five main vayus explained in Chapter 2; (ah-pa-NAHS-anna)

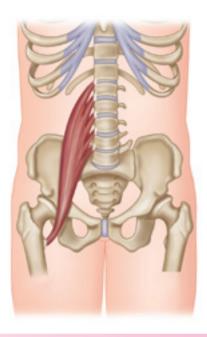
Awareness: Breath, core and neck strength, digestion, elimination.

Action and Alignment: Spine flexion, shoulder and girdle stabilization, hip flexion, knee flexion. Knees directly over the hips.

Technique: Lie on the back, with knees bent and shins in Table position. Hands rest on the knees. Inhale, then exhale as the spine flexes and the nose moves toward the knees. Inhale and stretch the legs away, then exhale and bring them back to Table. Inhale and roll down. Repeat three or four times.

Helpful Hints: Use the rectus abdominis to flex the spine, and the SCM to flex the neck. The spine is stretched, as well as the gluteal muscles. This posture is good at the beginning of class, to help warm the core, or at the end, before *Savasana*.

Counter Pose: *Savasana* (see Appendix 1).



Greek, *psoa*, muscle of the loin. Latin, *major*, larger.

The psoas major and iliacus (iliopsoas muscle group) are considered part of the posterior abdominal wall because of their position and cushioning role for the abdominal viscera. However, on the basis of their action of flexing the hip joint (the psoas major is the weaker of the two), it would also be relevant to place these two muscles in Chapter 8. The psoas major individually is also a deep core muscle because of its attachment to the lumbar spine (covered in Chapter 5). Note that some of the upper fibers of the psoas major may insert by a long tendon into the iliopubic eminence to form the psoas minor, which has little function and is absent in about 40% of people.

Bilateral contracture of this muscle might increase lumbar lordosis, and overuse or underuse may lead to other postural issues and/or pain—balance is the key!

Origin

Bases of transverse processes of all lumbar vertebrae (L1–L5). Bodies

of twelfth thoracic and all lumbar vertebrae (T12–L5). Intervertebral discs above each lumbar vertebra.

Insertion

Lesser trochanter of femur.

Action

Flexor of hip joint, in conjunction with iliacus (flexes and laterally rotates thigh, as in kicking a football). Acting from its Insertion, it weakly flexes the trunk, as in sitting up from a supine position. It is a strong stabilizer at both lumbar spine and hip joints.

Nerve

Ventral rami of lumbar nerves (L1, L2, L3, L4; psoas minor innervated from L1, L2).

Basic functional movement

Example: Going up a step or walking up an incline.

Movements that may injure or compromise this muscle

Overuse, as it is a strong stabilizer, and a biarticulate muscle at the lumbar spine and hip.
Underuse, such as sitting too much, which leads to a shortened, atrophied psoas.

Asanas that heavily use this muscle

Any standing asana uses the psoas major as a stabilizer at both lumbar spine and hip joints.

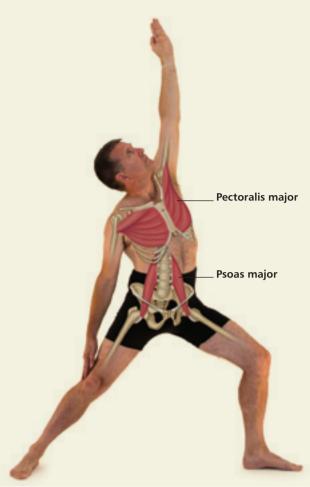
Strengthening: Navasana.

Virabhadrasana I, II, III (and Reverse Warrior, where strength is in the front leg, and stretch is in the back leg—as pictured).

Alanasana (lunge, strength is in the front leg).

Stretching: Back leg of *Anjanyasana*, *Virabhadrasanas*, *Alanasana*.

 8



viparita = reversed, inverted;
 Virabhadra = name of a warrior;
 (vip-par-ee-tah veer-ah-bah-DRAHS-anna)
 Awareness: Breath, stretch, strength, rib cage expansion,

pelvic stability, circulation.

Action and Alignment: Spine lateral flexion, shoulder abduction and adduction, shoulder girdle stabilization, elbow and wrist extension, hip flexion/extension/abduction, knee flexion and extension. Lower body alignment as in Warrior II.

Technique: From *Virabhadrasana II*, reverse the spine and arms up and back, keeping the legs firm and the feet grounded evenly. To increase the challenge, the lunge can be increased and the back arm wrapped behind for a binding effect. Lift the core and pelvic floor as the torso stretches to the back side.

Helpful Hints: A nice counter to Warriors and Triangles, this posture is done more as a side bend than as a backbend. The breath is strong as the body expands on the inhale, and softens in intensity on the exhale.

Counter Pose: *Uttanasana* (see Chapter 6).



An excellent example of an asana that uses all the muscles discussed in this chapter (as well as the main ones of the hip and knee joints) is *Alanasana* (High Lunge). This asana is especially effective for developing both strength (front leg) and stretch (back leg) for the psoas major, which also acts as a stabilizer for the lumbar spine.

Alana = minister of Shiva; (al-ahn-AHS-anna)

Awareness: Breath, strength, stretch, support, core work, balance, energy, *drishti* (focus).

Action and Alignment: Spine extension, shoulder flexion, shoulder girdle stabilization, hip flexion and extension, knee flexion and extension, core engagement. Front knee is aligned directly above the ankle, with the pelvis centered.

Technique: Usually done during a Sun Salutation before or after a Down Dog. Lift one leg to the back (three-legged Dog), then bring that leg forward with the knee bent, placing the foot between the hands. Lift the torso, either with the hands on the front thigh or with the arms up in the air.

Helpful Hints: Check front knee alignment and engage the core by dropping the tailbone, lifting the lower abdominals and pelvic floor. Energize the back leg by straightening the knee and pushing out through the back heel. A strong gaze forward will be helpful to maintain balance. Blocks may be placed on the outside of both feet for support and balance, as well as resting the back knee on the floor.

Counter Pose: Adho Mukha Svanasana (see Chapter 6).

 70