

{ ASANA SOLUTIONS }

## Lower Back Blues

*Nearly 6.5 million Americans are treated for lower back pain every day. Yoga therapy's prescription? Stretch and tone your psoas.*

By DOUG KELLER



Why do so many of us suffer from lower back pain? More often than not, it's because we spend most of our waking hours sitting—and that isn't healthy. One of the side effects of sitting all the time can be a shortened psoas muscle, which can pull on (and even twist) the spine, causing lower back pain. By working with this often overlooked muscle, we can undo a major cause of our discomfort. Yoga is well suited to this task; but before we see what hatha has to offer, we need to know where the psoas is, what it does, and what problems it causes when it is tight or dysfunctional.

Your psoas muscle originates along the sides of your lumbar spine, scoops under the organs of your lower abdomen, crosses over your pubic bone at the front of your hip joints, and attaches at your inner thigh. It's a hip flexor: when the psoas contracts, the thigh swings forward; it initiates each step as we walk. Hugging your spinal axis, the psoas is the central muscle of postural alignment, and provides coordination and stability for a wide range of movements. When the psoas is functioning properly,

activities such as gardening, which involve a great deal of crouching or forward bending. In contrast, walking and other activities in which the spine is erect often alleviate the pain because they extend and stretch the front of the hips and spine.

### DEMISTIFYING THE PAIN

Simple diaphragmatic breathing is an important component in overcoming back pain. Why? Because the psoas overlaps tendons of the diaphragm at the lumbar spine. As a result, these muscles are intimately related and affect each other's proper functioning. For example, the onset of lower back pain due to a tight psoas can set off a

*Negative experiences cause the psoas to contract, which stresses the lower back. Simple diaphragmatic breathing helps overcome this painful cycle.*

your movements are fluid and pain-free. But when it's chronically shortened and tight, this constant state of contraction limits your range of motion in the hips and pulls at the lumbar spine, putting pressure on the discs and straining the surrounding muscles.

The psoas is tightened by postures that involve flexing or bending at the hip, such as long periods of sitting, or from

vicious cycle of stress and pain because it inhibits diaphragmatic breathing, which in turn leads to shallow "chest breathing." This form of breathing is not only less efficient, it also requires more effort and sends a stress signal throughout the nervous system, increasing overall muscle tension. Change your breathing, and you can reverse the process: when your breath is relaxed, the psoas relaxes, and so does your



nervous system. By the same token, if you free the psoas from tension, you can liberate the breath.

Emotional stress directly influences the health of the psoas, too. Among muscles, the psoas ranks second only to the heart in emotional reactivity. The psoas pulls us into a crouch at the first hint of fear and translates our gut reactions into postural changes, such as a stooped posture that reflects our fear, intimidation, failure, or defeat. It also stores our emotional responses and memories (especially negative ones) on a cellular level. Negative experiences cause the psoas to contract on the spot, but also to sustain the contraction long after the event has passed. It should come as no surprise, then, that so many lower back problems crop up in times of emotional duress. As much as emotions can be the cause of back problems via the psoas, the work of hatha yoga to correct one's posture can end the vicious cycle of deeply embedded emotions by releasing the grip of the psoas.

Since there are two psoas muscles (one on each side of the spine), psoas tightness can manifest in a variety of forms. If one side is tighter than the other, the spine may bend slightly toward the tighter side, causing it to twist, which can lead to

spasms in other muscles, and can also pinch the intervertebral discs, which can lead to bulging, herniated, or "slipped" discs. A tight psoas can also pull the bones of the pelvic girdle out of alignment, causing stress and pain in the iliosacral joints.

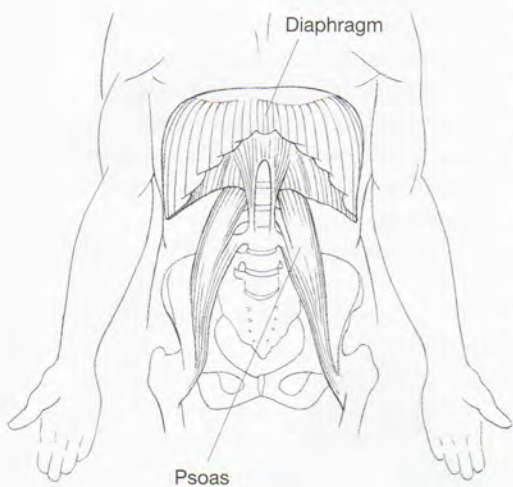
So how can yoga help? Specific asanas practiced with awareness of the psoas and the breath can be used to release tension in this important muscle and restore health to the lower back by balancing strength and flexibility in the psoas. Yoga also encourages the ability to let go, both emotionally and physically, even in the midst of great physical effort, and can release a host of postural knots that cause problems in the lower back.

#### WORKING WITH THE PSOAS

The psoas is such a deep muscle that it can be hard to get a sense of its exact location and function. Few of us can flex our psoas the way we might flex a bicep, or feel a psoas stretch the way we can feel a hamstring stretch. The psoas has a different constitution than these muscles, with far less hard fascial or connective tissue, so it can be much more tender. It does not tighten like a hamstring, so it doesn't need to stretch like one.

Another unusual aspect of a tight psoas is that it often needs to be toned or even strengthened before it can release back to its ideal length. Typically, we think muscles become tight because they are overdeveloped and overused. But a weak muscle can also be tight, and this is often true of the psoas. For instance, when we slump in a chair or bend over in the garden for a few hours, the psoas is contracted the entire time—but that doesn't make it any stronger. Instead, these postures shorten and weaken the psoas. So, how can you tell if your psoas is tight or weak, and what can you do about it? >>

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**THE PSOAS ORIGINATES** along the sides of the lumbar spine, which overlaps the diaphragm. Tightness in the psoas restricts the breath, which leads to an increase in overall muscle tension.



Our work with the psoas will include three elements:

- Sensing the psoas and experiencing its action.
- Releasing tension in the psoas using muscle awareness and deep breathing.
- Toning and strengthening the psoas so it can work in harmony with other muscles.

#### SENSING AND RELEASING THE PSOAS

The easiest way you can learn to release and begin to sense the psoas is to start by lying down on your back. Relax your jaw, part your lips slightly, and breathe comfortably. Let your exhalations have a soft, warm quality, as if you were quietly whispering “*hhhaaaaa*.” Imagine the exhalation originating from a release deep in your pelvis; as the diaphragm and chest muscles passively release to expel the breath, the psoas also releases—if you let it. You might feel your tailbone slide slightly toward your heels, reducing the arch in your lower back. This signals that the psoas is letting go. Your goal is not to flatten the back to the floor, but simply to feel this release as the spine settles into an entirely passive, neutral arch (Fig. 1). Some people feel a release in the jaw rather than the spine. This also signals a release deep inside the pelvis. Either way, you can practice this work for up to 10 minutes.

Once the lower back has settled into a relaxed neutral position, maintain this arch during the next part of the exercise. Begin to slide your right heel out along the floor with your foot slightly flexed. Keep your knee and toes pointing straight up toward the ceiling as you extend your leg slowly and smoothly

(Fig. 2). The release starts deep inside the pelvis and continues downward from the inside of the hip bone to the inner edge of the top thigh. If at any point you feel a tug that pulls the pelvis forward into a greater lumbar curve, pause and back up. This sensation comes from the pull of the psoas as it tightens and means you’re tensing and lifting the thigh from the hip, rather than releasing and extending the leg. Let go deeply inside the pelvis; then continue to slide the leg out. As you work, be aware of the flow of your breath, your thoughts, and the feeling of release deep within your core.

#### TONING THE PSOAS

The following exercise will also help you sense just where the psoas is inside, and what it feels like to move from your core by engaging the psoas to lift your leg, as distinct from other muscles. We’ll begin by moving from the psoas itself. Keep the same neutral arch in your back throughout the first part of this exercise, and keep your leg rotated so that your big toe points straight up toward the ceiling.

With your leg straight and firm, exhale as you lift your heel off the floor, but no more than three to four inches (Fig. 3). Hold for three breaths, lower, and repeat three times. To keep your leg aligned, imagine a tiny weight pulling your inner heel down, and feel how the lift comes from the inner thigh and deep within the pelvis to the inside of the hip bone. Notice the quality of this feeling: the lift of the leg comes from a deep, grounded place inside. This exercise gently tones and strengthens the psoas without gripping or tightening it.

#### SENSE THE PSOAS

*Relax on the exhalation, feeling a deep release in the psoas.*





## RELEASE THE PSOAS

*Keep the foot flexed as you slide your heel away.*



## TONE THE PSOAS

*Lift the leg from the inner thigh and deep within the pelvis.*



By way of contrast, in the following variations you'll find that the lift comes from more external muscles and feels less integrated. Compare the experiences so you can begin to replace stressful patterns of misalignment with better ones.

For the first variation, rotate your leg outward and lift the leg up and down a few times. Notice how the movement originates from a different part of the leg and hip—from the adductors—and how the muscles at the inside of the hip joint grip to lift the leg. This is what happens when we walk with the legs and feet externally rotated: the legs swing forward from the adductors along the inner thighs, and our hips and lower back progressively tighten. Check your shoes: excessive wear on the outer heel gives you a clue that you walk in this way, causing problems in your hip and lower back.

Return to your starting position. Next, try flattening your lower back on the floor as you lift the leg up and down; notice the gripping in the groin. This is what happens when we move with the pelvis tucked under—the kind of crouched, world-weary posture we described earlier, in which the psoas is chronically contracted. This posture is a recipe for lower back pain. To remedy the problem, we need to release our psoas to its proper length,

restoring a natural curve to the spine.

Once more, return to your original position. Now point your toes like a ballerina. As you lift and lower your leg this way, the movement may feel easier, but notice how the thigh is doing most of the work. This can be the case when you have a bit too much lumbar curve, which can make you look like you're walking on tiptoe. It can also cause you to swing your foot forward from the thigh, while the lower back remains arched and contracted. Here, too, there is less connection to movement from the core, more reliance on other muscles that are not meant to take the place of the psoas, and greater stress on the lower back. In this case the psoas pulls the pelvis into a forward tilt and needs greater support from the lower abdominals if it is to participate properly in our movements.

Return to the inwardly rotated, aligned posture with which we began to reestablish a good pattern, and then repeat this entire series with the other leg to find your center on that side as well. Then continue to stretch and lengthen the psoas by practicing the following asanas. Remember to move from the core by grounding and extending through your inner heel to properly align and engage the psoas. >>

## VIRABHADRASANA I

Of all the standing poses, *virabhadrasana I* (warrior I) is one of the most effective and challenging psoas stretches. In addition to lengthening this vital muscle, it stretches the calf and demands a great deal of strength from the thighs. The greatest challenge here is to remain fluid and extended at the core. This pose is a backbend, which demands that the hip and spine extend; thus the psoas must release, lengthen, and “stretch” with the support of the surrounding muscles. The moment the psoas contracts, it pulls at the lumbar spine, pinching the lower back as it tips the pelvis forward.

To begin, take a big step back with your left leg, leaning forward to place your hands on your right knee as it bends. The distance between your feet should be long enough to fully straighten your left leg, while keeping your right shin perpendicular to the floor. Your knee should not move beyond your heel. Turn

the back foot out between 30 and 45 degrees to allow your heel to reach the floor. Imagine a line running from your right heel straight back; adjust your left foot so that the line intersects your left heel, or even place it to the left of that line, to help with your balance. Firm your left thigh to keep your leg straight, and extend down to your inner heel. This will spiral your left thigh inward a bit; at the same time, it brings your outer left hip forward so that the hip “points” (the bony points at the front of your hip bones) are even with each other, facing forward. As you establish good alignment in your back leg, find your connection to your core—the psoas—that you felt in the previous exercise. The very muscles you just used to lift your leg will now be “stretched” in warrior I.

Don’t let your left foot flatten on the floor, since this tightens the inner hip, gripping the adductors; keep the inner arch lifted, drawing energy up the leg into

the pelvis. To begin to lengthen through the psoas and come more upright, draw your lower abdomen in and up from just above the pubic bone, taking a full breath in while not allowing your lower belly to drop. Extend your arms out to the sides, palms up, and then overhead. Continue to extend down to the heel while drawing energy up from the arch through the inner thigh and lower abdomen, right up to your fingertips.

To refine the action of the abdominals, imagine a ball of energy the size of an orange at the core of your pelvis. Rotate the front of the ball upward, moving the energy up through the lower belly, and the back of the ball downward, along the front of the sacrum toward the tailbone, while keeping your back leg straight, firm, and grounded through the heel. This is the feeling that comes from extending the psoas with the support of the tone and lift of the lower abdominal muscles. To come out of the pose, reverse the movements.



Lower your arms as you exhale, without allowing the belly to drop. Lower your hands to your hips and lean forward slightly as you straighten your front leg. Step forward to *tadasana* (mountain

*A tight psoas needs to be toned or strengthened before it can release back to its ideal length.*

pose) and take a few breaths to center yourself before repeating the pose on the other side.

*Virabhadrasana I* works especially well to release and lengthen the psoas, one of the common sources of back pain. But, in fact, all of hatha yoga's standing poses are designed to keep your lower back healthy and strong by encouraging harmonious cooperation between the psoas and the surrounding muscles. These basic postures, combined with mindful breath work, offer relief from lower back pain and pave the way to a more balanced, productive yoga practice. +



**WARRIOR 1**

*Lengthen through the psoas as you draw the lower abdomen in and extend down through the inner heel.*