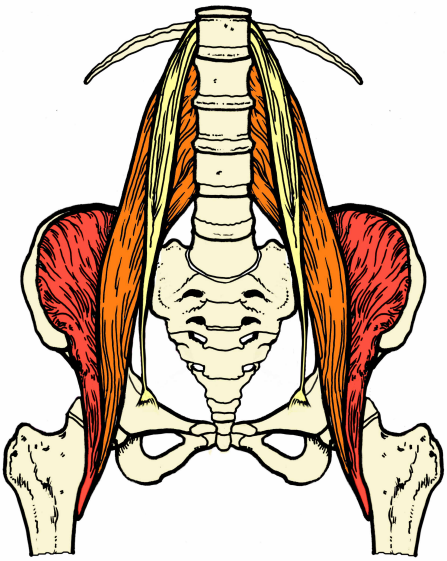
It's All About The Psoas



Six Posts by Jonathan FitzGordon

Although every effort has been made to provide an accurate description of posture remedies and their benefits, the information contained herein is not intended to be a substitute for professional medical advice, diagnosis or treatment in any manner.

Always consult your physician or health care professional before performing any new exercise or exercise technique, particularly if you are pregnant, nursing, elderly, or if you have any chronic or recurring conditions.

The authors are not responsible or liable for any injuries occurred by performing any of the exercises given or diagnosis made by a user based on the information shown within this document.

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Introduction

When I started the CoreWalking Program almost ten years ago I barely had an inkling about how powerful the psoas muscle was. Following a series of knee injuries that led to knee surgeries I took a step back to try and understand how I was using my body in a way that consistently lead to pain and injury.

Among the many revelations that followed—including the big one that no one actually teaches anyone to walk— I discovered the psoas, the body's most important muscle.

The CoreWalking Program and the Psoas Release Party! were born right around the same time as it was quickly apparent to me that a tight psoas could limit healthy movement patterns, plus I was always intrigued by this incredible muscle. In an attempt to help people find better access to their new walk releasing the psoas was a natural fit.

As client after client began reporting relief from back pain, both acute and chronic, many of my beliefs in movement patterns and the ability to access healing by changing the way we exercise, walk and stand were borne out.

Discovering release work was a revelation because as a yoga teacher first starting out I believed that stretching and strengthening was the answer to everything (I

still think it is pretty important). But it quickly became apparent that not only did stretching fail to help people with many of their pain issues, it often reinforced negative patterns that usually need changing.

Release work offers a very different approach to creating space in the body that can alleviate a great many aches and pains but also facilitate real change to our posture and movement patterns that is so essential to healing.

Releasing the psoas muscle can bring profound changes to the way you feel and move. The benefits that students of the Psoas Release Party! Have experienced are extensive:

The most consistent experience that you might have from a full does of release work is a deeper and fuller night's sleep. And getting better quality sleep is something that shouldn't be dismissed.

Many people find an increased range of motion in the hips, lower back— and as a number of the articles below will show you—even in some of the farther reaches like the knees and neck.

The genesis of the Psoas Release party began with a desire to help people find a a greater sense of calm and ease. The study of yoga brought me in touch with the workings of the human nervous system and I became

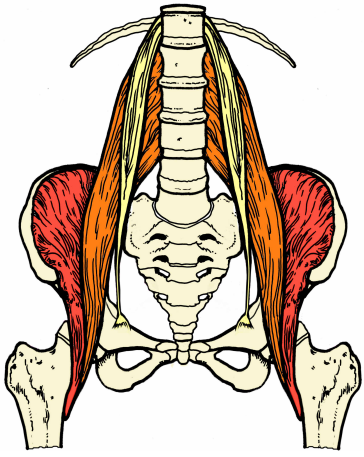
acutely aware of just how on edge so many of us are.

You also might find relief from chronic menstrual cramps (don't expect this to happen if you are a man), and what for some might be a true gift — spend an entire night without waking up to pee.

Enjoy the below posts — I chose these particular pieces because they all concern the extraordinary influence of the psoas. You'll read about the effect it has on such disparate body parts as the jaw and the big toe.

I hope that you find exploring the psoas as interesting as I do.

The Psoas, the Lumbar Spine and Lower Back Pain



The psoas major muscle attaches along the lumbar spine and lower back pain often involves this all-important muscle that too few people have heard of. The five bones that make up the lumbar spine sit between the pelvis and the rib cage, bearing and transferring from the upper to lower body.

The psoas flexes and laterally rotates the leg at the hip and it flexes the spine. From a standing position the psoas lifts the leg bending the knee towards the chest. Lying on the floor the psoas helps to lift the trunk towards a sit up.

The curve of the lumbar spine, without which we couldn't stand or walk upright, is created by the psoas major when we come up to stand from a kneeling and crawling position. When the psoas shortens or engages it pulls the lumbar vertebrae forward and down. This engagement is what created our curved lower spine as the pelvis is pulled upright with the spine stacked vertically.

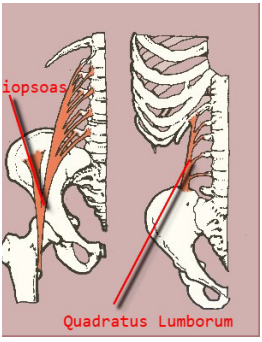
The lower back in a quadrupedal animal lacks a curve because the psoas doesn't cross the pelvis to affect the lumbar spine.

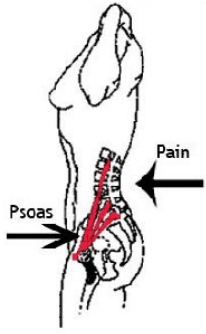
When it comes to the lumbar spine and lower back pain it is hard, if not impossible, for the psoas muscle to avoid complicity in the problem at hand. The same goes for many of the muscles in the vicinity of the psoas.

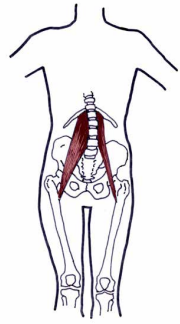
The quadratus lumborum, for example, is the next door neighbor of the psoas, connecting the pelvis to the ribcage and acting to bring stabilize these structures. The quadratus, or QL, attaches to similar points along the lumbar spine as the psoas and they are almost always part of the lower back pain puzzle.

The psoas can affect the lumbar spine in many ways as it connects to four of the lumbar vertebrae in two different places (both the body and the base of the transverse processes).

If the engaged psoas pulls the lumbar vertebrae forward, chronically tight psoas muscles will pull and keep the lumbar vertebrae forward into a hyper lordotic, or overly arched, state. If the psoas is tight on only one side it will pull the vertebrae forward on that side only and in turn will usually twist and torque the pelvis along







with the lumbars. As one side tightens, the other side often fades into obscurity losing tone and strength.

Both of these inappropriate alignments of the psoas can, and often do, lead to lower back pain. These are basic misalignments that involve all of the connections of the psoas along the lumbar spine. But it is also possible for the psoas to have problems within the individual connections along the spine.

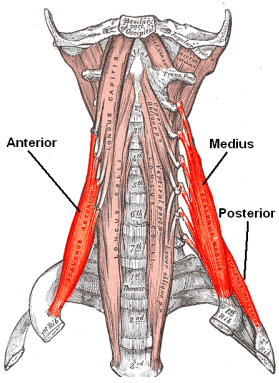
If the psoas attaches on the first through fourth lumbar vertebrae it is possible for two of those attachments to be happily aligned and two to be off kilter.

With all of these possibilities for dysfunction there are many ways to connect the psoas, the lumbar spine and lower back pain. Two tight psoas can compress the lumbar vertebrae create pain in the center of the spine. One tight psoas can compress the spine laterally creating lower back pain that would present slightly different symptoms.

One tight psoas can also pull a leg up into the hip socket limiting range of motion and creating discomfort. That same tight psoas can push forward into the inguinal ligament creating yet another kind of pain that often presents as a wrapping feeling from the front of the pelvis towards the back.

The psoas, the lumbar spine and lower back pain are usually synonymous in my book. And even if the psoas isn't directly involved with the pain, getting the psoas aligned and working more functionally is almost always part of the healing puzzle.

The Psoas, Forward Head Posture and the Scalene Muscles



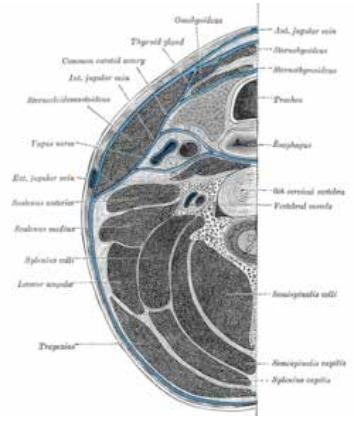
The scalene muscles are three paired muscles of differing lengths. They originate from the transverse process of the 2nd-7th cervical vertebrae (the neck), and insert on the first and second ribs.

They are three (sometimes four) muscles that act to flex, bend and rotate the neck depending on how they are working together and what part of the skeleton is fixed or moving. If the ribcage doesn't move, all three of the scalene muscles can bend the neck forward and sideways, and rotate it as well.

When the head and neck are held steady, the scalenus anterior and medius both elevate the first rib while the scalenus posterior elevates the second rib to assist in breathing and create more space in the thoracic cavity.

Forward head posture is endemic to our society. If you live and breathe the odds are you suffer from this postural problem. And if you do, the scalene muscles are part of the problem. Take some pictures of yourself, look in a mirror or try to stand with your back to the

wall and get the entire back of your body (other than the lower back and the neck) to the wall. If your head doesn't get there comfortably you have tight scalene muscles and forward head posture.



I can promise that you are not alone.

Forward head posture creates an imbalance between the muscles of the head neck and shoulders. The muscles in front of your neck tend to become over-extended while those at the back of the neck usually are short, tight and suffering.

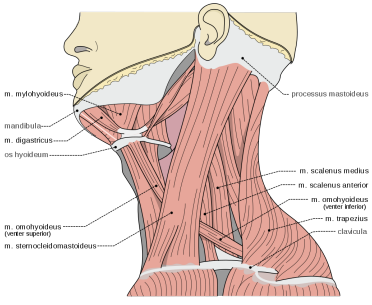
When the scalenes and sternocleidomastoid (SCM) are pulled forward posturally, the erector spinea muscles, meant to elevate the spine are pulled forward as well, and lose their erectile capabilities.

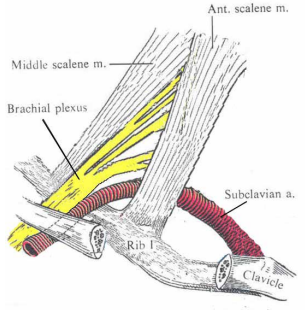
Another part of the head and neck that is affected are the sub occipital muscles connecting the head to the top of the spine. These are the only muscles in the body with a connection to the spinal cord, and their ability to communicate with the spine is severely compromised by forward head posture and misaligned scalene muscles.

Most pains in the neck involve the scalene muscles to one degree or another. You can suffer from tight scalenes on one side of the neck as well. A dysfunctional psoas major (my favorite muscle) often creates a leg length discrepancy which can inhibit or shorten the entire side of the body, including and creating short tight scalenes.

The scalene muscles, along with the SCM are situated in a key spot in our anatomical structure and therefore can be involved with numerous nerve pain related problems. The nerves need space to flow in order to power the body and tight muscles often mess with the optimal flow of nervous energy.

The most critical aspect of misaligned scalene muscles occurs with the brachial plexus, a network of nerves that emanate from the spine, passing through





the neck, on the way to innervate the arm. The brachial plexus' route from the spine to the arm passes directly between scalenus anterior and scalenus medius. Short,

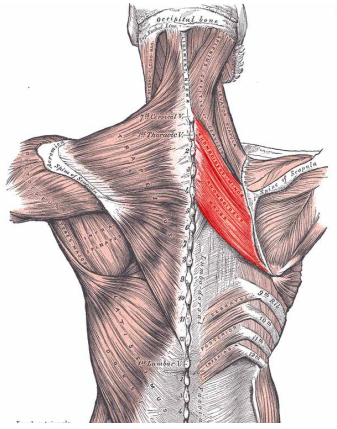
tight or generally misaligned scalene muscles can impact the brachial plexus directly.

The list of problems that can be related to the brachial plexus is fairly long and while the scalene muscles might not be the exact cause they will always be related to head neck and shoulder issues of forward head posture. Carpal tunnel syndrome, thoracic outlet syndrome, numb extremities are just a few options on a long menu of ailments.

The most effective way to bring relief to unhappy scalenes is to change the posture that lead to their suffering in the first place. Readers of the blog will not be surprised to read that finding this relief will not come from moving the head and neck, but by reorienting the pelvis so that it frees the spine to stack vertically and allows the head to sit comfortably on top of the vertebral column.

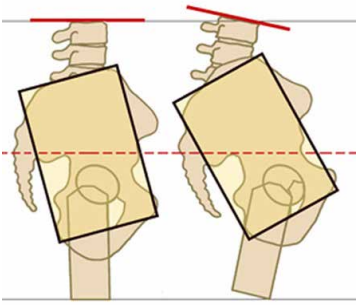
A well aligned spine with a free and happy psoas affords the body the best chance to work according to its design. Its design is pretty magical but it is not fulfilled through osmosis. We need to think about the way we walk and stand if we want our heads to sit on straight and our scalene muscles to be successfully aligned.

Rhomboid Muscles, a Tucked Pelvis and the Psoas



The Rhomboid muscles connect the shoulder blade to the spine at the back. The psoas major connects the spine to the legs from the front. If your pelvis is properly aligned (untucked), the psoas works like a pulley system to help lengthen and extend the spine. The pulley system works because the psoas attaches at the back of the body and crosses the front of the pelvis creating the tension that helps to support the spine. The hip bone is the pulley and the psoas is the rope.

When the psoas works as a pulley the erector spinea muscles of the back body lengthen the spine upwards. If your pelvis is tucked under the bottom of the psoas moves forward and the tension that creates the pulley action disappears. What does this have to do with the rhomboid muscles you ask? Tuck your pelvis under and see for yourself. The ideal position of the shoulder blades finds them equidistant from the spine and parallel to each other at their upper border.



When the pelvis tucks under and the psoas can no longer assist the erector muscles of the spine to extend up, the shoulder blades are pulled apart and the rhomboid muscles are pulled wider apart than then they need to be. This is the environment that I find most people live in—rhomboid muscles that are too long and tend towards weakness. This is a direct result of the position of the pelvis and lack of pulley action in the psoas.

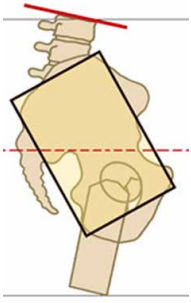
I find that many people are trying to figure out their posture by taking their shoulders backwards instead of realigning the pelvis. For me taking the shoulders back creates of false sense of good posture because it creates tone in the rhomboid muscles that can't be sustained if the pelvis is misaligned.

The two things that need to happen are untucking the pelvis which allows the psoas to do its thing and creates a better more natural placement of the shoulder blades, and, building tone in the rhomboids through exercises. If these things happen no one will need to hold their shoulders and arms up and back because they will be naturally aligned.

Posture needs to develop from the placement of the

pelvis, not created from taking the arms and shoulders, and in turn the rhomboid muscles, where we think they should be. Posture should be the natural result of good skeletal alignment and balanced muscle tone. Not something we are actively creating by holding ourselves in place.

The Pelvis, The Psoas And That Tight Pectoralis Minor



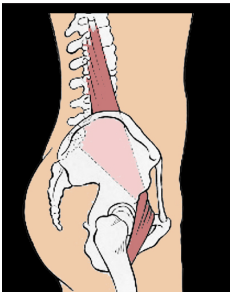
Tight pectoralis minor muscles are a problem for a large majority of people that I work with. Pectoralis minor connects the shoulder girdle to the rib cage and acts to draw the shoulder blade forward and down. It tends to become tight and dysfunctional for a number of reasons.

It would be easy to blame the computer that you hunch over for hours on end as the main culprit, or the vegetables you chop, or the baby you carry… these actions all make it easy to develop a tight pectoralis minor.

But, and there is always the inevitable but, if your pelvis and lumbar curve are correctly aligned you should have adequate support for these functionally necessary postural positions.

When you sit or stand with the pelvis tucked under, or the thighs leaning forward, it throws off the natural curve of the lumbar spine which profoundly influences the pectoralis minor and its partner pectoralis major.

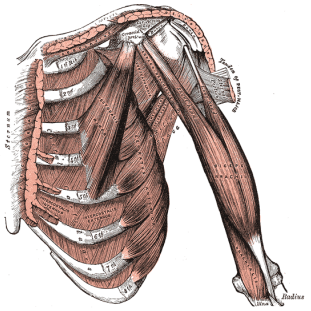
I have written in the past about the relationship of the alignment of the pelvis and the rhomboid muscles



of the upper back and this pretty much mines the same territory.

When the pelvis is in the right place, the psoas muscles help the erector muscles of the spine to lengthen, providing support for the usually loose rhomboids to tone.

The same thing happens to the tight pectoralis minor muscle. The extension of the spine facilitated by the pelvis and psoas broadens pectoralis minor. It might resist that broadening in a different way than the looser more lax rhomboid but with persistence and the right stretches, the tight pectoralis minor muscle will eventually begin to open.



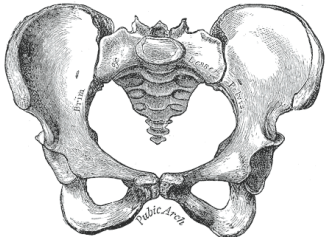
But, and there often is another but, all the body work and upper body stretching in the world won't address the issue of a tight pectoralis minor if you don't change your posture and realign the lower body as well.

If you learn to walk and stand correctly, the pectoral muscles with have a much better chance to align and open.

The Pelvis, the Psoas and the Masseter Muscle

I wrote recently about the masseter muscle that connects the jaw to the skull. If your jaw aches odds are the masseter is involved. Likewise, the masseter is by nature involved when people suffer from jaw dysfunction commonly referred to as TMD, or TMJD. It isn't the only muscle in the mix so you will be feeling all the involved muscles of the jaw in the exercise below.

This is one of many posts that begin— The Pelvis, The Psoas and… And not to beat on a dead horse for the umpteenth time but…



The alignment of the pelvis (and the legs underneath the pelvis), determines in large part the alignment of the psoas. Together these two partners, when we'll situated, facilitate ease in the body both postural and emotionally.

Well situated for me means that the leg bones fall directly underneath the hips and your big butt muscle gluteus maximus doesn't sit on the hamstring. It should have a room of its own, so to speak, and that is one way

to know that your pelvis is in a good neutral position.

The psoas is in a good position when the bottom of it, where it attaches to the back of the femur bone, is aligned with the back half of the body.

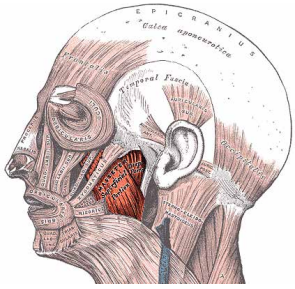
The opposite, where I think most people spend the majority of their time, is for the thigh bones to sink or lean forward which forces the gluteus maximus to sit down on the back of the thigh or hamstrings. This also moves the attachment of the psoas to the front half of the body.

For the following exercise I want you to switch back and forth between these two positions. Feel free to go to extremes in both directions. The point is to feel the muscles of the jaw and how they respond to the different ways the bones align when you shift the pelvis from tucked under to stuck out.

I think that there is a correct or best alignment of the pelvis and psoas. I believe that you know that you are there when the majority of your muscles relax when not in a state of action. In this case we are feeling the masseter and muscles of the jaw.

This is an experiential exercise that is hopefully pretty easy to tap into, and very easy to do.

Feel the Masseter and the Jaw



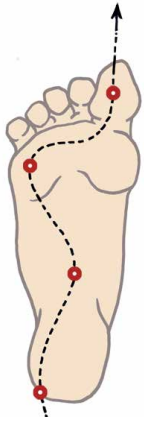
- Stand with the feet as close together as comfortable and towards parallel.
- If it is comfortable, close your eyes.
- Start by standing in a position that you consider good posture.
- Bring your awareness to your jaw. How does it hang? Do the muscles feel tight? Loose? Etc.
- Now lean the thighs forward and tuck the pelvis under keeping your awareness on the jaw and how changing your posture changes your jaw.
- Then stick your butt out and take the thighs back (though you can do this in any order that you'd like).
- Move back and forth this way feeling the changes tone to the jaw and its assorted connective tissue.
- Find the placement of the pelvis where the jaw and masseter muscles feel best.

If I had to guess the legs will be under the hips, the gluteus maximus will have a room of its own and your psoas will be set back at is base so that it can perform its magic.

The Big Toe, The Psoas And Lower Back Pain

Lower back pain can often, though not always, be traced to an issue with the psoas muscle. The psoas—the body's most important muscle—helps to hold the spine upright, facilitates good walking patterns and warehouses all of the body's unprocessed energy.

The relationship of the psoas to lower back pain encompasses all three of these factors. Our unprocessed energy can lead to back pain for esoteric reasons that are unrelated to the big toe so I will refer you to other posts on the blog for that information.



But when it comes to walking and standing the big toe is easily connected to incidents of lower back pain as related to the psoas. Much of this pain can be attributed to a lack of support for the lumbar spine due to the misalignment of the pelvis, legs and in turn, the psoas.

The psoas attaches on the femur bone towards the back of the inner thigh. It is essential for the psoas to align in the back plane of the body at its top and bottom if it is to successfully hold the spine upright and initiate our gait. To do so the legs need to sit directly under the hips.

When we put weight into the big toe and the inner edge of the foot we activate the inner thigh at the same time. When we walk correctly the entire weight of the body falls on the big toe in order to push off to the next step. Pushing off through the big toe activates the inner thighs and sets the psoas back at its base.

This action also helps the spine to lengthen up. When the inner thigh moves backwards, taking the psoas with it, the psoas engages across the rim of the pelvis pulling the lumbar spine forward. The erector muscles of the spine react to the shortening of the psoas by moving in opposition and extending up the back of the body.

The easiest way to feel the connection between the psoas and the big toe is to stand up with the feet parallel and hip distance apart.

- Roll your weight onto the outside of your feet and you will likely feel the outer thighs engage and your inner thighs lose tone.
- Roll onto the inner edge of the foot particularly the mound of the big toe and feel the inner thighs tone slightly.

The power of this weight shift should not be underestimated. It is this grounding, or lack thereof,

that can be responsible for a great deal of lower back pain. When we bear the weight of the upper body through the outer foot we lose access to our center and to the psoas muscle.

A great deal of the lower back pain that people experience comes from faulty load bearing and compression of the lumbar vertebrae due to poor posture and weight transfer.

If the psoas isn't properly aligned at the back half of the inner thigh with the legs directly under the pelvis and the inner foot bearing its share of the load, the psoas can't work in tandem with spinal erectors and the lower spine will be compressed which in many cases can lead to lower back pain.