# ALLAN'S LUNGE

## for effective psoas release and greater Core control

by Allan Menezes

A new exercise has been created to help stretch the psoas in one movement rather than two. It is called ***Allan's Lunge.***

Those of you who are in the Pilates industry will know of Eve's Lunge. *Eve's Lunge* was named after Eve Gentry who was a student of Joe Pilates (she passed away recently) and I had the fortune of doing some work with Eve in Santa Fe some years ago. Her lunge was a *straight leg behind* version performed on the reformer or floor.

The majority of psoas stretches involve a similar movement to Eve's lunge or variations thereof, such as figures 1, 2 and 3.

Fig 1

Fig 2

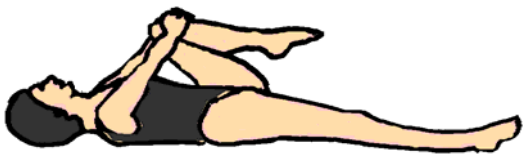

Fig 3

Allan's lunge is different in that it specifically targets the psoas (even though a quad stretch is also achieved).

Before we get into the benefits of the movement, we need to understand some basic anatomy of the psoas and the mechanics that are used in how it can be stretched or released.

The psoas attachments are from the transvers processes of the L1 – L5 vertebrae as well as the lateral parts of the vertebral bodies of the T12 – L5 and the intervertebral discs between them. It then attaches to the lesser trochanter of the femur (Fig 4)

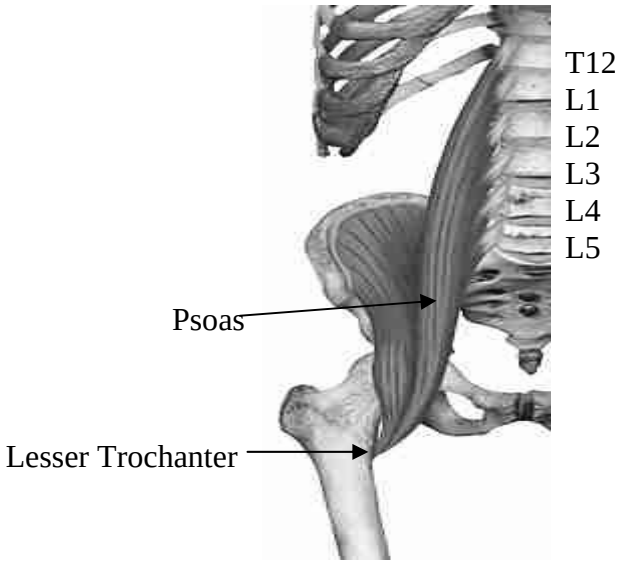


Fig 4

The psoas (major and minor, as well as iliacus) is also considered part of the hip flexor group. The psoas (major) contributes to the following actions in the hip joint from its attachment to the femur:

i) Flexion
ii) External rotation

From Its attachment to the lumbar spine its actions contribute to:

i) Bending the trunk laterally (unilateral contraction)

ii) Lifts the trunk from supine position (bilateral contraction) – so this small, but powerful, muscle lifts the entire trunk into a sitting position.

Consequently, if the abdominals are weak and/or the lower back muscles are tight, the psoas will ‘take over” the job of the abdominals and, rather than the back curling forward into a sit-up, the torso will jerk forward with a “gripping” of the hip flexors.

Tight psoas and quadriceps are known to contribute to back pain. In a studio situation we have assessed that approximately 15-20% of most back pain is as a result of tight hip flexors. Once these are release with appropriate stretches the back compression (pain) diminishes accordingly. We have also discovered that by stretching the quadriceps before attempting to stretch the psoas is the preferred sequence. By releasing the quadriceps we can attain “better access” to the psoas for a more effective stretch.

However, the psoas continues to contribute to more back compression that it is given credit for. In fact, it is probably more neglected than not when focusing on alleviation of compression.

Have you ever noticed how, when your clients go into the hundreds (or other forward contraction movement) that their abdominals “pop up” even if they are breathing out, thereby not attaining the scooped abdominals look?
What are chances that this is the psoas popping up, trying to take over the role of the abdominals (because the abdominals are “weak” and unable to suppress the psoas from pulling on the lower back?

If the psoas can be released prior to abdominal contraction work (e.g. hundreds, single leg stretch, double leg stretch, etc) more effective abdominal strength can be achieved as this hip flexor would not be as taught, therefore, allowing the abdominals to contract, not only with more ease, but also with less back involvement (i.e. flatter abdominals).

Because of where it is attached to the lesser trochanter of the femur, the psoas can be stretched by three actions of the femur:

1 Abduction
2 Hyper-extension and
3 Internal rotation

The stretch from the vertebral column includes:

1 Lateral flexion of the spine

Once you have completed an effective Quadriceps stretch (see www.pilates.net/quadstretch.htm if you need one) then do the following test first to see how quickly this result is achieved.

Stand upright and take your right  leg behind you as much as possible without leaning forward or turning out the leg (Fig 5), similar to an standing upright arabesque without involving the arms.

Notice two things:

1 How high you are able to lift the leg off the floor and
2 How much back compression you feel.

We will repeat the same action at the end of Allan's Lunge to see the difference.

Fig 5

Fig 8

**Allan's Lunge:**

1. Kneel down in the centre of a mat. Bring one leg up with the left foot on the ground (so we are stretching the right side).
2. Take the left foot on the floor out to the edge, or over, the edge of the mat, away from the median, so you are **abducting** the femur
3. Then take the right foot away from the median line of the knee (Menezes Position) so the femur **internally rotates**, the foot is off the edge of the

mat/reformer. (This is better seen in the front view of the picture on the reformer – Fig 7)

4. If there is any knee discomfort, then adjust the knee position on the mat or place extra padding under the knee.
5. Then Lunge forward, keeping the torso upright and hips square facing forward, while tucking the pelvis under. This will produce a **hyperextension** of the femur. Hold this position for ten **deep** breathes in and out, keeping the lower abdominals drawn in constantly.

On the reformer keep the hips to the outside of the reformer so your median is in line with the edge of the carriage. Go into the Lunge (one light spring) and hold this position for 10 deep breathes in and out.

The stretch should be felt along the quadriceps and more medially as well. If there is an increase in back compression, then lift the torso upright out of the hips. Keep the shoulders relaxed to the floor.

Fig 6 (picture is for LEFT psoas stretch)

Fig 7

Do the standing test again as above and notice the difference - Fig 8.
These are actual untouched photos before and after Allan's Lunge.

Amazing results:

- The leg can go into further hyperextension
- There is **significantly** less lower back compression.

Tests were conducted on 120 clients.
114 reported 70-100% less back compression
6 reported 30-60% less back compression
92 reported 80-100% greater hyperextension
22 reported 40 – 70% greater hyperextension
120 reported less back compression with greater elevation at differing levels.

A Similar test was conducted on the same subjects a week after Allan's Lunge.
This was
This was performed in a straight forward lunge position (Eve's Lunge) without internal rotation or abduction of the femur.
In 100% of cases, clients reported less elevation and less reduction in back compression with this stretch.

As a result of this release and subsequent increased mobilization of the spinal column, the abdominal muscles are able to connect better without the psoas 'pulling' on the back. As both the quadriceps and psoas hip flexors are now stretched a stronger Core is able to be attained. A typical control exercise for this that was tested was the Hundreds. Prior to Allan's Lunge, the Hundreds was performed on a number of subjects with the aim of lowering the legs as low as possible without the back arching and keeping the shoulder blades off the floor (ribs and hips in a horizontal plane).

In 90% of the 120 cases, the legs were able to be lowered up to 20º further than prior to Allan's Lunge. Greater abdominal work was reported by all these cases.

The psoas is a very 'overlooked' muscle in the overall scheme of stretches. It is now part of our regular warm-up routines for all clients and all now say they cannot do without it!