



Muscle Release Techniques for

Low Back Pain and Hip Pain

The movement of the lower back is very closely correlated to the upper back, pelvis and hips.

When the deep muscles of the hip are tight and contracted when at rest, the normal curvature of the spine can be changed and there can be an increase in load on the lower back. Hip muscles can become tight over time due to periods of prolonged sitting. As a result, low back pain can occur secondary to tight hip muscles.

Trigger point release and myofascial massage can be used as an aid to relax the hip muscles and lower back. This hip release program can be done at home using a ball and a foam roller. Stretching can be more effective after releasing the tight spots in the muscle. It should be noted that prolonged stretching should not be done prior to athletic activity.



Ball Soft Tissue Release Exercises

A tennis ball or a squash ball can be used for trigger point release. Or you can purchase a ball specific for release work. Soft tissue release work involves putting pressure on “knots”, also called trigger points, in muscles for an extended period in time in order to release the tension in the muscle. These releases should not be painful.

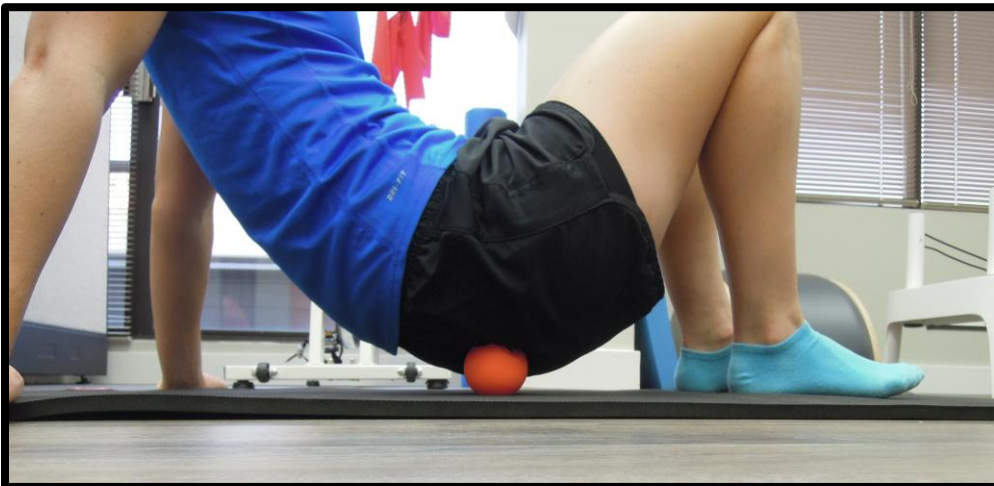
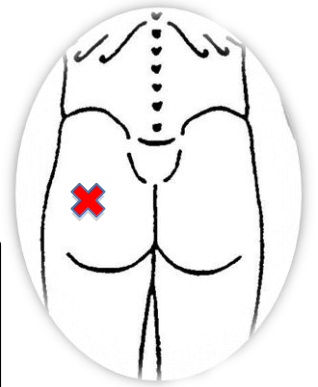
Tips:

- Shift your weight around on the ball to find the tightest point in the muscle
- There isn't a set length of time for each release; just wait until you feel the muscle start to relax, and feel yourself sink into the ball.
- The majority of your body weight should be in your hands and feet to start
- As the muscle releases, more pressure can be placed through the ball.

1. Piriformis

Body position: Seated on ground with knees up and feet planted on the floor

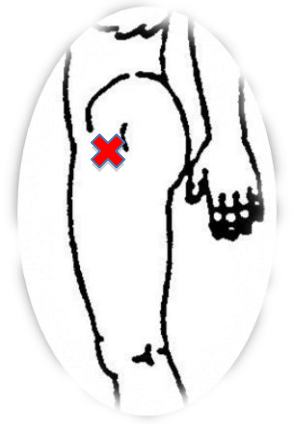
Ball position: Between the tailbone and the top of the femur



2. Tensor Fascia Latae (TFL)

Body position: Lying on side with torso propped up by forearm

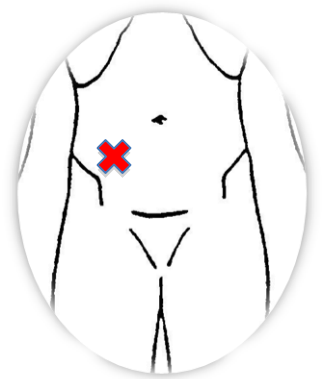
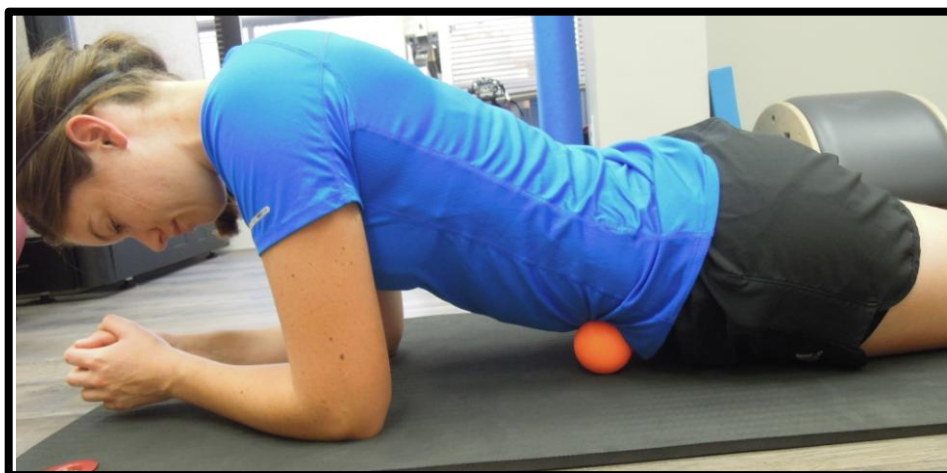
Ball position: The ball is placed below the side of your hipbone.



3. Iliopsoas

Body position: Lying facedown with torso propped up by forearms

Ball position: The ball is placed above the front of your hip bone.



Note: be careful not to overarch your back here and move the ball if you feel a pulse underneath it. Try out a couple of points above and just inside your hip bone.



Foam Roller Exercises

Massage increases blood flow and reduces inflammation to tight muscles as well as stimulating hormones that promote relaxation. Rollers are used to mimic the pressure placed on soft tissue during a classic massage and can help increase mobility in layers of tissue.

Tips:

- Finding your balance on a foam roller takes practice so don't get discouraged if the movements feel awkward at first.
- Initially, place the majority of your weight through your hands and feet until you feel more comfortable.
- Gently rock back and forth along the length of a muscle.

1. Back

Body position: Rest your hands behind your head, have your feet on the ground with your knees up.

Action: Roll back and forth along your spine from your shoulder blades down to your hipbones.

Note: If you are having trouble balancing or are finding the motion too painful, shift your weight so only one side of your body is in contact with the foam roller and place your forearm on the ground.



2. Gluteus Maximus

Body position: Rest your forearms on the ground behind you, have your feet on the ground in front of you with your knees up.

Action: Roll back and forth from your hipbones down to the start of your hamstrings.

Note: If you are having trouble balancing or are finding the motion too painful, shift your weight so only one side of your body is in contact with the foam roller and place your forearm on the ground.



3. Hamstrings

Body position: Place your hands on the ground behind you, have your legs extended out in front of you. The leg with the roller under will be straight without touching the ground; the other leg will be bent with the foot placed on the ground.

Action: Roll back and forth along the back of your thigh from the base of the buttocks down to behind the knee. This exercise is performed one side at a time.

Note: Point your toes to the right or the left while rolling to make sure that you are targeting all three hamstring muscles.



4. Quadriceps

Body position: Facing toward the ground (prone position), place your hands underneath your shoulders. The leg on the foam roller will be straight. The other leg will be bent so that both the knee and the foot are on the ground for support.

Action: Roll back and forth along the length of the muscle from the front of your hipbone down to your knee. Use your hands and the resting leg to rock your body.

Note: Rotate your leg so that all four of the muscles that make up the quads are targeted. You may find it easier to roll out the top half of the muscle first before rolling out the bottom half of the muscle.



5. Adductors (groin)

Body Position: In table-top position, press both forearms against the floor along with the knee of the resting leg.

Action: Roll back and forth along your inner thigh from your groin down to your knee

Note: If you are having trouble balancing or are finding the motion too painful, shift your bodyweight into your hands and away from the side being foam-rolled.

(see next page for a picture of the exercise)





6. IT Band/TFL

Body Position: Lie on one side. Keep the leg being foam rolled straight; cross the other leg over and bend it so that the foot rests flat on the ground. Place both of your hands on the ground for support.

Action: Roll back and forth along the outside of the thigh from the hip down to the knee.

Note: If you are having trouble balancing or are finding the motion too painful, shift your bodyweight into your hands.



Stretching Exercises

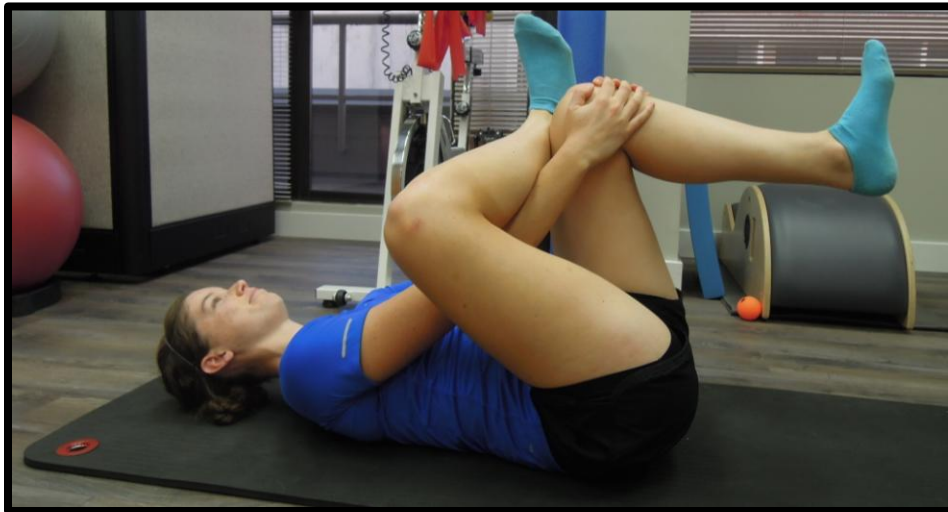
Utilizing trigger point and massage techniques relieve some of the tension in the muscles of the hips. We can take advantage of this reduced muscle tension to increase our hip range of motion in all directions with stretching the muscles. Do not do prolonged stretching immediately prior to athletic activities however.

We will hold each stretch for **one minute**, per side

1. Thread the Needle

Directions: Lying on your back, cross the ankle of one leg over the knee of the other. For a larger stretch, interlace your hands behind the leg on the ground and pull towards your chest. Should feel gentle to moderate stretch.

Tip: If you are having trouble with the first position, place the sole of the uncrossed leg against the wall, forming a right angle at the knee. Keep pelvis down on ground.



Modification against the wall:



2. Hip Openers

Directions: Lying on your back, place the soles of your feet on the ground shoulder width apart. Your knees should be pointing up towards the ceiling. Place your arms on the ground pointing out from your body. Slowly lower both knees to the ground to the right side as you breathe in. Breathe out as you return your knees to the starting position before dropping them down to the left side.

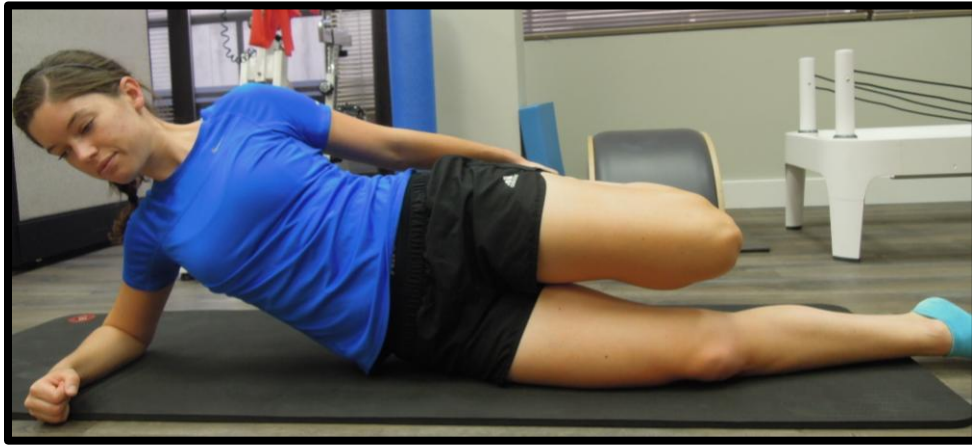
Tip: Try to count to three while dropping your knees.



Stretch 3: Lying Quad Stretch

Directions: Lay on your side with both legs straight and your bottom hand resting on the ground. Bring the foot that is not touching the ground back towards your bottom and grab onto your heel.

Tip: Make sure your hips are stacked- imagine that if a pole ran up between your hipbones it would be sticking straight up, perpendicular to the floor.



Stretch 4: Lying Hamstring stretch (with band)

Directions: Lay on your back with both legs straight in front of you. Loop an exercise band around the sole of one foot, then hold onto the other end of the band with your hands. Raise this foot as high as you can while keeping your leg straight and the band taught.

Tip: To improve your range of motion, try and bring your foot towards the floor while maintaining the tension in the band for five seconds. Then relax and try and bring your leg up higher. Repeat this cycle 3-5 times.



Stretch 5: Abductor/crossover stretch

Directions: Stand up with your feet shoulder width apart, then cross one foot in front of the other. Stick your hip away from the crossed foot. Bring your hands above your head and sidebend to the opposite side to form a long C shape. Try not to compress your back on the other side while stretching the left side body and lateral hip.



This program can help you gain mobility in your hips and prevent/reduce back pain. Please contact Body Works Sports Physiotherapy if you have any further questions or would like to schedule an appointment.

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