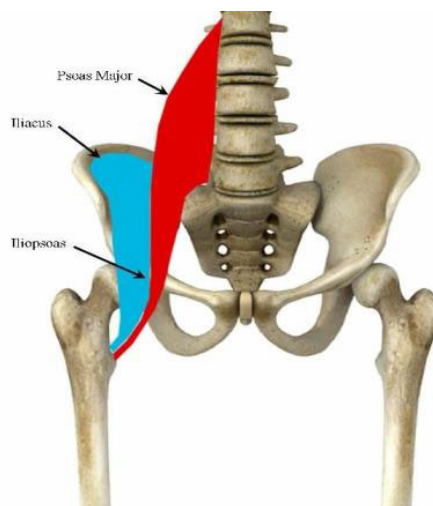


ILIOPSOAS BURSITIS / TENDINITIS

The iliopsoas muscle-tendon helps flex (bend) the hip and rotate the hip so the foot rotates outward. The iliopsoas is a merging of 2 muscles, one from the pelvis and one from the lower back, that attach to the upper, inner thigh (lesser trochanter). At the level of the hip, the tendon is covered by the iliopsoas bursa, the largest bursa in the body. The bursa helps coat the tendon so it can move smoothly in front of the hip bones. The iliopsoas muscle or tendon may become inflamed – which may be difficult to identify which one is actually causing the pain. A tight or weak iliopsoas tendon may result in irritation of the iliopsoas bursa (a bursa that reduces friction between the iliopsoas tendon and the hip joint) or inflammation of the tendon itself.

Sometimes the iliopsoas can get irritated over the front of the hip socket following total hip replacement.



Frequent Signs and Symptoms:

- There may be some popping or snapping of the hip, often without discomfort. This is felt in the groin or front of the hip that may be felt to the knee or thigh.
- Pain with activities such as kicking or bending the hip up, and sit ups.
- Pain lifting the leg up, such as getting in a car or climbing stairs.

Causes:

- May occur without any injury.
- Strain from sudden increase in amount or intensity of activity or overuse of the lower extremity.
- Repetitive motion (hip bending and straightening) may lead to inflammation of the tendon as it passes the bony prominences leading to thickening and scarring of the tendon.
- Irritation from rubbing against total hip replacement socket.
- It is associated with tight and/or weak muscles and tendons.

Risk Increases With:

- Endurance sports (distance run, triathlon, race walk).
- Activities that require bending, lifting or climbing.
- May occur after hip arthroscopy - especially if rehabbing too quickly or too aggressively after surgery.
- May occur after total hip replacement with big socket.
- Poor physical conditioning (strength/flexibility).

- Inadequate warm-up prior to practice or play.
- Compensation of other extremity injuries.
- Previous or concurrent injury to the hip.

Preventive Measures:

- Warm up and stretching before practice or competition.
- Give time for adequate rest and recovery between practices and competition.
- Stretching and strengthening of the iliopsoas muscle.
- Conditioning including hip, pelvis and trunk strength, flexibility, endurance as well as cardiovascular fitness.
- Proper technique.

Expected Outcome:

Usually curable with time and appropriate treatment. Healing time varies, but usually averages 2 - 6 weeks. However, if weak, full strength may take months to achieve.

Possible Complications:

- Healing time will be prolonged if not appropriately treated or if not given adequate time to heal.
- Chronically inflamed tendon causing persistent pain with activity that may progress to constant pain.
- Recurrence of symptoms if return to activity is too soon, with overuse, direct blow, or poor technique.

General Treatment Considerations:

Initial treatment consists of medication and ice to relieve the pain, stretching and strengthening exercises and modifying activities which cause symptoms. These can be carried out at home or with a physical therapist. An injection of cortisone into the iliopsoas bursa may be helpful to reduce pain and inflammation, but can also confirm the diagnosis. Surgery to remove the inflamed tendon lining or degenerated tendon tissue and move or lengthen the tendon is rarely needed and usually only considered after at least 6 months of conservative treatment. While this can be done with an open procedure, arthroscopic lengthening of the iliopsoas tendon tends to be as effective, but with quicker rehabilitation and less complications.

Medication:

- Non-steroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take if surgery planned in 7 days or less), or other minor painkillers, such as paracetamol, are often recommended. Take these as directed. Contact your physician if any bleeding, stomach upset or an allergic reaction occurs.

- Painkillers are usually not prescribed for this condition.
- Steroid injections reduce inflammation, and anaesthetics temporarily relieve pain. However, this is done only in extreme cases as there is a limit to the number of times steroids may be given due to the fact it weakens muscle and tendon tissue.

Heat and Cold:

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 20 minutes every 2-3 hours for inflammation and pain, and after activity which aggravates your symptoms. You may use ice packs, bags of frozen peas, or a cold compression device.
- Heat may be used prior to performing stretching and strengthening activities. Use heat pack or warm soak.

Notify our Department if:

- Symptoms get worse or do not improve in 4 weeks despite treatment.
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.

ILIOPSOAS BURSITIS / TENDINITIS HOME EXERCISE PROGRAM

Over 95% of patients with iliopsoas tendinitis and bursitis are successfully treated with a non-operative rehabilitation program. This starts with exercises to stretch the muscle-tendon unit, as well as to strengthen the muscles. If pain is limiting the ability to do the exercises, then medications, such as non-steroidal anti-inflammatory medications, paracetamol and/or aspirin may be used. In some situations, such as intolerance to oral medications, or if the oral medications do not adequately reduce the pain to allow for proper rehabilitation (exercise program), then an injection with corticosteroids may be useful.

There are 3 stretching exercises and 3 strengthening exercises that may be recommended, and will be graphically represented here.

Stretching:

Flexible tissue is more tolerant of the stresses placed on it during activities, which is why we start with stretching the iliopsoas. Each stretch should be held for 20 – 30 seconds. A gentle stretching sensation should be felt.

The first stretch is shown in figure 1. In this stretch, you lay on your back near the edge of your bed or table. Your affected leg (the right leg in this diagram) hangs over the side of the bed while you bend your non-affected leg (the left in this diagram) and hold on to this knee. Holding the knee like this will lock your pelvis, allowing the iliopsoas to be stretched. Hold this stretch for 20 – 30 seconds, and repeat it 3 times.

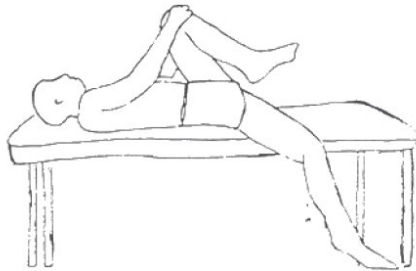


Figure 1.

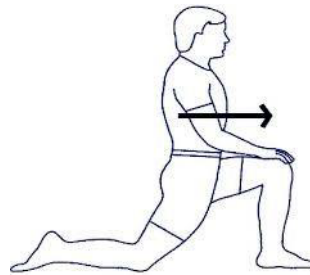


Figure 2.



Figure 3.

The second stretch is the hip flexor lunge, demonstrated in figure 2. In this diagram, the patient is stretching the right iliopsoas. The left (non-affected) hip and knee are flexed with the foot stabilized on the ground. The right (affected) hip is behind the patient – the knee, leg and foot on the ground. Once in this position, lunge your body forward while engaging your core, leading with your hips. Do not bend forward at the waste. Keep your chest upright (not arching your back). Hold this stretch for 20 – 30 seconds and repeat it 3 times. An alternative to the hip lunge shown in figure 2 is to place the foot of the non-affected leg on a step or a box at least 1 foot high while keeping the affected leg on the ground. While keeping the knee of the affected leg straight, lunge your waist / hips forward while keeping your chest and back straight. Hold this stretch for 20 – 30 seconds and repeat it 3 times.

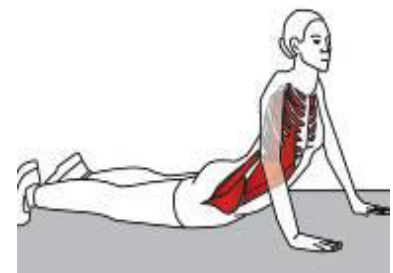


Figure 4.

Another good stretch for the iliopsoas is the lumbar extension stretch (Figure 4). Lay on your stomach on the floor as shown in figure 3. Place your palms flat on the floor. Push down on your hands, straightening out your arms and putting an arch in your back. Straighten your elbows fully, keeping your hips on the floor. Hold this stretch for 20 seconds and return to the starting position. Repeat 3 times. If you are unable to fully straighten your elbows while keeping your back relaxed, place them farther in front of you and try again.

Strengthening:

The following are some good exercises to strengthen your iliopsoas muscle. Strong muscles with good endurance tolerate stress better. Progress slowly with each exercise and gradually increase the number of repetitions and weight used. In general, to build strength, we recommend picking a weight that you can do between 10 and 20 repetitions per set. If you cannot do 10 repetitions with good form, then the weight is too heavy. If you can do more than 20 repetitions per set, then it is too light. You want to be able to do 3 sets of 10-20 repetitions per day.

The first is seated hip flexion. Figure 5 shows a woman doing seated hip flexion against her hand as resistance. While seated on a chair, raise the thigh off the chair while the knee is flexed / bent. Count to 10, and then relax. You can repeat this exercise doing 3 sets of 10 repetitions. Alternatively, you can put a weight on your thigh, instead of your hand, and raise the thigh off the chair / foot off the ground about 8 inches, with the knee bent. Again, the amount of weight is based on the number of repetitions you can do. You should be able to do between 10 and 20 repetitions per set, and do 3 set a day.



Figure 5.



Figure 6.



Figure 7.

Alternatively, you may use ankle weights, or weights on your feet, as in figure 6, to do the seated hip flexion exercises. Lastly, hip flexion strengthening can be performed while standing, as in figure 7. Standing in an erect posture, place a weight around your ankle. Bend your hip and knee up until your thigh is parallel with the floor and bring it back down. When you can do 3 sets of 10 – 20 repetitions like this, you can either increase the weight, or hold the position of the thigh parallel to the ground for 5 seconds. You may also use rubber tubing around your ankle and the other end tied around a stationary object.