GROIN STRAIN

What is it?

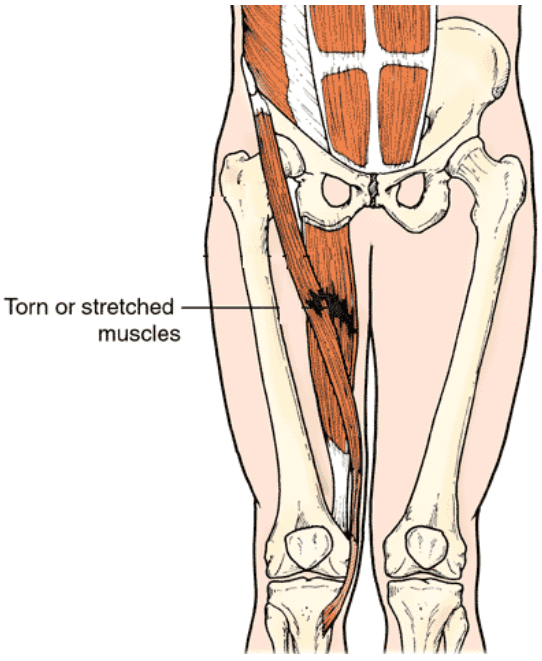
An excessive stretch or tearing of muscle fibres and related tissues. This can occur within any one of the groin/ adductor muscles, however it is most common in the adductor longus. It is sometimes known as a 'riders strain' due to overuse of adductor longus in working a horse while riding.

What Causes this?

A groin strain is a common problem among many individuals who are physically active, especially in competitive sports. A strain in the adductor muscles occurs most commonly when the muscle tries to contract/ work against resistance. For example, a forced push-off (side to side motion) or when a person shifts suddenly in the opposite direction. A strain may also be caused by over-stretching the muscles, such as when moving the leg too far sideways from the body

What are the signs & symptoms?

Main Symptoms – Pain may be felt anywhere along the length of the groin/ inner thigh region. Tenderness on palpation will locate the specific muscle and region at fault. There is usually pain on resisted adduction (when you squeeze your knees together), and when your leg is taken away from your body (abduction). In severe strains the limb becomes swollen and bruising may develop within 24-48 hours.



What will physiotherapy consist of?

If groin strains are left untreated the injury can become *chronic*. Fibrosis may occur with scar tissue replacing normal contractile tissue. This dysfunctional healing mixed with immobilisation can lead to tightness and shortening of the muscle that may predispose to further strains. These changes will impair the ability of the hip during daily activities, such as walking, running and sport. Physiotherapy may include:

Massage encompasses a variety of techniques and is given with sufficient pressure through the superficial tissue to reach the deep lying structures. It is used to increase blood flow, decrease swelling, reduce muscle spasm and promote normal tissue repair.

Deep friction is an aggressive massage technique. It is applied across the tissue fibres. Pressure is given as deeply as possible. This technique is initially painful but can cause a numbing effect. It can be used to break down scar tissue, restore normal movement and prepare the injured structure for mobilisation or manipulation.

Mobilisation is a manual technique where the joint and soft tissues are gently moved by the physiotherapist to restore normal range, lubricate joint surfaces, and relieve pain.

Ultrasonic Therapy transmits sound waves through the tissues stimulating the body's chemical reactions and therefore healing process, just as shaking a test tube in the laboratory speeds up a chemical reaction. It reduces tissue spasm, accelerates the healing process and results in pain relief.

Interferential Therapy introduces a small electrical current into the tissues and can be used at varying frequencies for differing treatment effects. E.g. pain relief, muscle or nerve stimulation, promoting blood flow and reducing swelling/inflammation.

Other treatments that may be used

Laser Therapy emits beams of light into the tissues of the body, stimulating chemical reactions and having a similar effect to ultrasound though using light energy instead of sound energy.

Acupuncture is an oriental technique of introducing needles into the skin to increase or decrease energy flow to promote pain relief and healing.

Injection Therapy is a specialist procedure, which needs the consent of your G.P. A non-harmful steroid and local anaesthetic are injected directly into the injured structure. It has a dramatic effect on removing inflammation and promoting healing.

Podiatry involves an analysis of the lower limb mechanics and structure during walking or running and correction as appropriate.

What should the patient do to help their condition?

Active Rest – keep active but avoid activities that aggravate your condition i.e. any activity that places repetitive strain on your groin muscles, such as running or lifting heavy weights at the gym.

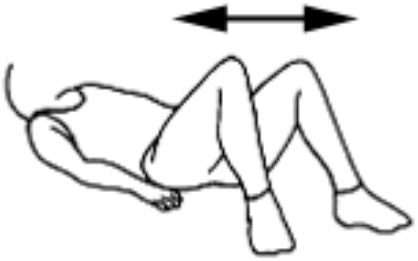
Apply an ice pack – for a maximum of 20 minutes. Do this in acute injuries where there is swelling, inflammation and pain. A bag of frozen peas wrapped in a damp cloth works well because it moulds to the shape of the groin. Ensure that the skin does not change colour (the sign of an ice burn).

Contrast bathing - From 5 days post injury apply both hot and cold packs. Alternate from as hot as you can withstand for 5 minutes, followed by one as cold as you can withstand for 5 minutes repeat for approximately 20 – 30 minutes.

Take ibuprofen/ analgesia - according to the directions on the packet, up to the maximum daily dose. It is not suitable for people who have a history of stomach ulcers, or for some people with asthma. If in doubt, ask your pharmacist for advice.

Exercise/Postural programme – comply with the prescribed exercise/postural programme. **Your physio will instruct you as to which of the exercises to begin with, when to add the others, as well as how to progress the exercises.**

Adductor stretch **1.**



Adductor stretch **2.**

Adductor stretch **3.**

Adductor/ Groin stretches:

1. Lying on your back with knees bent 90degrees slowly drop your knees out wards and down towards the floor.
2. Sitting on the floor with soles placed against each other, the heels are slowly drawn to the pelvis whilst the elbows slowly push the knees downwards.
3. With legs spread and affected foot back and perpendicular to the front the patient slowly bends the front knee to create a gradual stretch on the rear leg adductors.

Stretch until a resistance is felt and then hold for 30 seconds. This should not be painful.

4. Hip adductor strengthening

5. Hip abductor strengthening

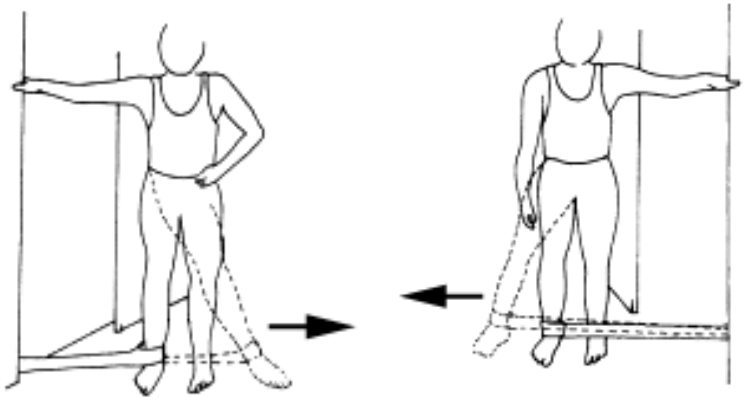
4. Lie on your injured side. Bend your uninjured leg over your injured leg so that the foot of your uninjured leg is flat on the floor. Tighten the muscles on the front of the thigh of the injured leg and lift that leg 8 to 10 inches off the floor, keeping your knee straight. Slowly lower your leg to the floor.
5. Lying on your uninjured side, tighten the front thigh muscles on your injured leg and lift that leg 8 to 10 inches away from the other leg. Keep the leg straight.

Repeat both exercises 10 times. Perform 3 sets of 10.

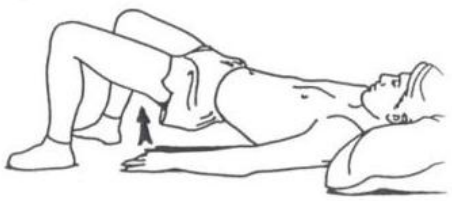
Attach one end of the thera-band to an immovable object, and the other to your ankle.

6. Stand sideways to the door, with your uninjured leg away from the door. Bring your injured leg across your body sideways, crossing over your uninjured leg. Return to the starting position.
7. Stand sideways to the door, with your injured leg away from the door. Tighten your thigh muscles and extend your leg out to the side. Return to the starting position.

6. Resisted Hip adduction **7.** Resisted hip abduction.



8. Bridging



9. Wall Slides

8. Lie flat on your back with your knees bent 90 degrees. Lift your bottom of the floor so that your hips and torso are level. Hold for 10 seconds. Repeat 10 times.
9. Stand with your back, shoulders, and head against a wall and look straight ahead. Your feet should be one foot away from the wall and a shoulder's width apart. Slowly squat until you are almost in a sitting position. Hold this position for 5 seconds. Slowly slide back up. Repeat 10 times

What if physiotherapy does not help or resolve my condition?
It is very rare that physiotherapy does not resolve this condition, in these cases a cortisone injection may be appropriate and in very extreme cases surgery is a possible option. These options can be discussed with your therapist if appropriate.