

# GROIN PAIN IN SOCCER

Groin pain from soccer can originate from a number of sources, some being more simple to tackle compared with others which are more complex, frustrating and stubborn to heal. It may not be the most 'comfortable' area to treat, but don't let anxiety or embarrassment stop you from getting help. Groin injuries are common in many other sports too and physical therapy specialists can treat it professionally getting you back on the field pain-free, doing what you love.

Your inner thigh or groin area is made up of five muscles that originate from your pelvis and run down your inner thigh working to pull your legs together. These five muscles together are called your adductor muscles. They function intricately with muscles around your lower back, upper thigh and buttocks to provide a strong stable base for running, sprinting and jumping; as well as balance and control for one legged activities like kicking, lunging, or side stepping.

The importance of groin strength in soccer, or any other physically demanding sport cannot be emphasised enough. With strength includes good flexibility and muscle endurance to ensure optimal function. The groin muscles are actively contracting to move you around the field and kick balls, lunge and side step but at the same time they are working with your core and lower back, glutes, quads and hamstring muscles to ensure a strong stable pelvis co-ordinating all these 'one-legged' activities. The impact forces sustained during running and jumping can be anywhere from 3 times your body weight to more than 6 times! Your muscles act as shock absorbers to help absorb and dissipate these loads. Around the groin and pelvis specifically with every jump or stride gravity is also pushing the weight of your internal organs downwards; where strong muscles are crucial to aid ligaments in 'holding' everything inside! So, you can see how weak, fatigued or injured groin muscles could complicate an injury or result in one.

The three most common causes of groin pain in soccer are a strain in an adductor muscle, a tendon injury or osteitis pubis, an instability around the pelvis. Table 1 on the

next page shows the details of each of these injuries – how they happen, what you feel and how they can be treated.

With any one of these groin injuries common to soccer it is essential not only to have hands-on physical therapy treatment in the early stages, but to continue with a full rehabilitation programme to ensure best outcomes and prevent recurrence of the injury. Strengthening your pelvis and core including your lower back and gluteus (buttock) muscles is essential to ensure good control and stability around your groin. Correcting underlying muscle imbalances (in strength or flexibility) through exercise correction and neural mobilisation stretches is also key to injury prevention and management.

Your physical therapy specialist should also assess your posture with any associated groin pain injury. Your groin, as part of your hips, are the power house of your lower limbs for propulsion and jumping. Commonly associated with pelvic and groin injuries are short, tight hip flexors. This is usually a consequence of lifestyle and work environment i.e hours sitting at your desk, watching TV, commuting and driving. Your hips are bent/flexed and associated

structures on the anterior (front) of your hips muscles and tendons become short and tight which can impact significantly on your posture and subsequent optimal functioning of structures around your back, pelvis and lower limbs. If you have had a groin injury or want to prevent one have your physical therapy specialist assess your posture and advise you on exercises, stretches and work place adjustments to correct this.

Don't leave a groin niggle to become a debilitating pain, early treatment will ensure the best results and get you back on the field as quickly as possible!



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**TABLE 1: DIFFERENT CAUSES, SYMPTOMS AND MANAGEMENT OF GROIN PAIN**

## Adductor muscle strain

### How it happens

- Muscle tear or rupture to any one of the five adductor muscles, most commonly the adductor longus
- Sudden acute injury often from an overstretched sliding tackle, side step, sudden change in direction while running

Depending on the severity, groin strains are graded:

- Grade 1 strains are a mild injury, where a few fibres are torn or disrupted but the muscle bundle is still intact
- Grade 2 strains are a moderate severity injury, a number of muscle fibres are torn. This will affect your sporting performance and ability to walk
- Grade 3 strains are severe, complete rupture of the muscle. This will affect your ability to run, jump and hop. These injuries may require surgical intervention

## Adductor tendinopathy

### How it happens

- Chronic overuse injury of an adductor tendon
- Tendinopathy can develop from overtraining or overload, poor technique, or following a previous injury like a muscle strain
- Degenerative wear and tear changes to the tendon fibres which are slow to heal due to poor blood supply in the tendon

## Osteitis pubis

### How it happens

- An overuse injury, caused by repeated trauma rather than a specific incident
- However, there can be a history of a specific incident that triggered the symptoms.
- An instability of the pelvic bones, in particular the pubic symphysis
- Aggravated when asymmetrical loads are placed through the pelvis such as running or kicking
- Associated with poor lumbopelvic (lower back and pelvis) control
- There is often history of previous groin injury, 'sportsman's' hernia or low back pain

### What do you feel?

- Immediate pain or pain developing as you cease playing soccer
- Tenderness in the muscle belly
- Stiffness
- Swelling or bruising along the muscle
- Pain when stretching or contracting the muscle

### What do you feel?

- Pain at the top of the groin, radiating down leg
- Pain with hip flexion
- Pain on a specific bone in the groin
- Pain squeezing legs together against resistance
- Pain running, especially sprinting
- Stiffness in the mornings
- A sense of weakness when trying to kick or use the leg

### What do you feel?

- Pain over the pubic symphysis with referred pain into the groin
- Acute tenderness directly on the bony pubic symphysis
- Pain on resisted muscle contraction
- Pain stretching adductor muscles
- Coughing, sneezing, performing sit-ups can cause pain
- Often unable to lie flat on back or on stomach because of pain/discomfort

### Treatment

Immediately following injury follow the PRICE protocol:

- Protect the muscle
- Rest
- Ice
- Compression of the muscle
- Elevate the leg

After 48–72 hours you will be assessed to the extent of the injury and treatment can start including:

- Physical therapy to promote tissue healing and ensure minimal scar tissue formation
- Massage and manual therapy to release tight surrounding structures and address any underlying back, pelvis or hip issues
- Exercise therapy – slow and progressive over stages depending on the severity of the initial tear

### Treatment

In the early stages:

- Ice regularly through the day
- Stop stretching the adductor muscles
- Have physical therapy to mobilise tight structures and promote tissue healing using massage, acupuncture and other modalities
- Do isometric exercises 2–3 times per week especially if still painful

In the later stages:

- Load modification; manage muscle imbalances in weakness and flexibility through exercises; training schedule, technique
- Strengthen the core, pelvis and gluteal (buttock) muscles
- Eccentric strengthening exercises

### Treatment

- Rest to unload the injured region, often a cessation of running and kicking, even the use of crutches in acute severe stages
- Retrain stabilisation control of the pelvic girdle with specific exercises prescribed by your physical therapy specialist
- Manual therapy treatments to normalise soft tissue and muscle flexibility across groin and pelvis
- Early return to activity with low impact, like cycling, swimming with a pool buoy
- Once pain permits, light straight-line running drills may commence

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