



# HIP PAIN AND CYCLING

## THE INJURY

Hip pain in cyclists could be due to a number of pathologies including bursitis, snapping hip syndrome, impingement syndrome, labral tears or piriformis syndrome. Although the diagnoses may vary, the causes of cycling hip injuries are usually similar and involve over-training, pushing excessively high gears and muscle imbalances. The two most commonly seen hip injuries are piriformis syndrome and bursitis.

The piriformis is a small muscle that rotates the leg outwards. As this is not a movement that cyclists need to do much, the muscle can shorten (tighten) and weaken, as the bigger gluteal (buttock) muscles dominate. Any changes to the piriformis muscle, by virtue of its anatomical location, can irritate or add pressure to the sciatic nerve, resulting in sciatica. A short tight muscle can also develop painful trigger points which in turn can refer pain down the back of the leg, not unlike sciatica, as well as refer pain anteriorly into the groin area.

Bursitis is a condition that occurs when a bursa becomes inflamed. A bursa is a small sac, usually filled with fluid, that acts as a cushion/shock absorber between bones and soft tissues like muscle and ligaments. There are multiple bursa around and within your hip joint, lying over the top of your femur (thigh bone). The bursa can become inflamed due to repetitive irritation which may stem from a sudden increase in training, but also due to incorrect biomechanics around the hip joint leading to abnormal irritation of the bursa. Hip bursitis

typically includes pain around the hip and into the groin or buttock area. Pain may get worse with prolonged exercise or walking.

## MANAGEMENT AND REHABILITATION

As mentioned, most hip injuries sustained during cycling are caused by underlying muscle imbalances or overtraining. Strengthening a muscle allows it to maintain its integrity and prevent muscle spasm or shortening, that comes with fatigue, and with that reduced flexibility and pain. With altered flexibility of muscles around the hip joint, including the commonly shortened hip flexor (iliopsoas) muscle seen in cyclists, the biomechanics of the joint are altered, leading to potential bursitis and other injuries. Treatment needs to address the cause by prescribing a specific stretching programme for hip flexors and the piriformis, as well as strengthening of the piriformis. As the hip joint is an integral part of the pelvis and pelvic stability is crucial for cycling performance and injury prevention, a strengthening programme should also include core exercises and pelvic stabilising exercises.

Treatment may include icing of the hip joint, and the use of non-steroidal anti-inflammatories. If a bursitis is diagnosed, a steroid injection can be administered by a doctor for symptomatic relief, however rehabilitation is still essential to address the underlying cause and prevent recurrence. Physical therapy can include deep tissue myofascial release, trigger point therapy, neural mobility and acupuncture. Regular massage or using a foam roller can help maintain flexibility in the gluteal and hip muscles. A bursitis, being an inflammatory-type injury, usually requires time off the bike and a very gradual return to cycling once pain free.

## PREVENTION

### BODY CONDITIONING TIPS

■ The most important thing is to address the underlying muscle imbalances. By strengthening weak muscles, or loosening tight muscles will often put a stop to the pain. Exercises may include hip adduction and abduction, clam, plank, reverse plank, squats, bridging, and lateral walking with a resistance band. It is best to see your

physical therapist for the correct assessment and diagnosis of your hip pain, so that the right exercises and advice can be prescribed for your condition.

### BIKE SET UP TIPS

■ Gear back and increase your cadence to take pressure off your hips. Raise your seat to reduce the amount of hip flexion and

anterior impingement. You can also raise your handlebars so you sit a little more upright relieving the amount of hip flexion. If you are recovering from a bursitis you may need to lower your seat slightly when you return to cycling. Have your bike posture checked as this is crucial in injury prevention and in avoiding injury recurrence.

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