

Calf Injuries

The Calf is a group of 3 muscles (gastrocnemius, soleus and plantaris) that run from both above and below the knee to the foot and attach via the Achilles tendon. These three muscles act together to plantar-flex the ankle (Point toes towards the ground). They play an important role in propulsion during walking, running and jumping. Injury to the calf muscles is called a strain, and these range from a mild strain of the muscle fibres (Grade I injury) to a complete tear of the muscle (Grade III injury).

Calf injuries must be carefully managed as they have a very high rate of recurrence if not treated carefully. Regardless of severity, in the first 48 hours the injury should be treated with the RICE regimen (Rest, Ice, Compression, Elevation). Following this, treatment to restore range of movement (such as stretches and gentle massage), and later to strengthen the healed muscle is required.

When returning from a calf injury, a lack of pain in the muscle is a poor indicator of when it is safe to return to sport. A recent study found that while muscle quickly regains its ability to generate force after injury (about a week), its ability to withstand this force is decreased for a significantly longer time(about three weeks). This sets up a scenario where an inappropriately rapid return to sports means that the muscle may in enough to re-tear.

A carefully managed strengthening program as well as a graded return to running is the safest way of managing a moderate to severe calf strain. Specific exercises to strengthen the calf in the positions that they must work in while running or jumping (such as heel raises) have been shown to decrease the risk of re-injury of calf strains, and a slow build-up of running intensity and distance allows the muscles to return to pre-injury workload.

Other factors that can influence your susceptibility to calf injuries can include poor ankle stability, flexibility and poor running technique. Your physio is able to check these factors and address them if need be, as well as customise a program to return you to sport with the minimum chance of re-injury.

