Title: Calf Strains  
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Key difference: A Soleus or a Gastrocnemius strain?

An injury to a calf muscle could be in one of two potential areas: the Soleus or the Gastrocnemius (see diagram). A tear or strain of the Soleus muscle in the calf are not as commonly diagnosed as a Gastrocnemius strain or tear.

An accurate diagnosis of a Soleus strain is important for prognosis and rehabilitation purpose. Generally a strain of the Soleus muscle will take twice as long to rehabilitate when compared to a Gastrocnemius strain.

![Calf Muscle Image](webMD.com)

Presentation

An athlete with a Soleus strain may present after a sudden onset of pain, but more commonly after a gradual increase in calf pain or tightness. They may even be able to play out a full game before complaining of symptoms.

Pain from a Soleus strain will often be more aggravated during walking and/or jogging. A Soleus strain will typically be felt in the mid to lateral calf, and feel deep in the calf muscles.

On the other hand, a Gastrocnemius strain will usually occur to the medial head of Gastrocnemius, and typically will be felt when an athlete is running as the Gastrocnemius is under more strain.

Sideline review and differentiation

Physical differentiation can be assessed on the sidelines with muscle length and strength testing with a bent knee compared to an extended knee.

Pain on passive dorsiflexion of the ankle, with a flexed knee would indicate disruption to the fibres of Soleus. This should be initially assessed by a trainer or physio manually taking the ankle into dorsiflexion with a bent knee, then can be tested by the athlete with a bent knee calf stretch if no pain is reproduced.
Pain on active plantarflexion of the ankle with a bent knee may reveal pain or weakness of the Soleus. Again this can be tested manually by the club trainer or physio by getting the athlete to push down into the trainers hands while the trainer applies resistance. If this does not reveal anything, the player can attempt a single leg, bent knee calf raise.

If pain or weakness is found with any of these tests, the athlete should commence initial injury management using the RICE and HARM principals to assist in best recovery.

The key aspect of calf management is to get the correct diagnosis, treatment and rehabilitation as soon as possible to ensure a quick return to play and most importantly ensuring that the injury doesn’t become chronic.