

A CYCLIST'S GUIDE TO
**INJURY
PREVENTION**

Complaining calves

CALF MUSCLES ARE worked very hard while cycling, so how to react when they start to complain? Heed the warning, advises physio and osteopath *Lewis Wood*



As cyclists, we've all experienced sore, tight and/or tender calf muscles. Most of us have at some point whimpered, "Ow, my calves feel like bricks," or a similar lament. And we weren't being melodramatic; the muscle tissue felt rock-hard! When this happens, should we worry, and what should we do?

Usually, after a few days off the bike, with regular calf stretches and self-massage, the calves begin to return to normal. However, if the tightness continues into the next ride and the pain worsens, it's quite possible that a band of taut muscle (strained myofibrils) has developed. At this stage, it's usually OK to carry on riding, as the condition is not severe (a severe calf muscle injury manifests suddenly, and is immediately acutely painful). However, if left untreated, over the next 18 months, this tight, damaged muscle could form adhesive scar tissue.

Anatomy of the calf

The powerful upper calf muscle is called

the gastrocnemius and has two branches behind the knee known as the medial and lateral muscle heads. They are the main flexors of the knee in locomotion and cycling. The lower calf muscle is called the soleus; it is a flat muscle that lies underneath the gastrocnemius. Both muscles run the entire length of the tibia and at the base join to the Achilles tendon, the strongest tendon in the human body, which connects to the heel and flexes the ankle, as well as supporting your whole body weight as you push through the ball of your foot.

How serious is it?

Mild calf muscle strains are typically caused through muscle overuse, chronic calf muscle shortening, development of numerous muscular nodules (untreated muscle knots) or previous calf muscle injury. Injuries range from minor damage, classified as grade-I strains; grade-II are partial tears. A complete rupture is classified as a grade-III tear. Severe tears are usually caused by explosive, rapid

acceleration, deceleration or intense physical effort, and are more common in sports such as running, football, rugby and athletics. This doesn't mean cyclists are immune; in a severe tear, you're likely to experience a tearing sensation or hear a loud pop – the classic 'pulled calf muscle'.

Should I stop cycling?

It is important to distinguish between exercise-induced soreness in your calf muscle and a muscle strain. If it does not settle within seven to 10 days, you should stop riding and seek medical help from a physio, osteopath or your GP. Calf muscle soreness and tightness can also be caused by mineral deficiencies, Achilles tendonitis, a meniscal tear in your knee, referred pain from sciatica or, when accompanied by heat and swelling, may indicate the presence of a deep vein thrombosis (DVT).

THE EXPERT

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SELF HELP

Self-help exercises

Don't panic; help is at hand. Those who begin a programme of self-help exercises can benefit immediately, with an instant improvement in calf muscle tightness. Complete these specific exercises, pre/post ride and 24 hours after each ride.

DYNAMIC CALF STRETCH

Stand on a step and place the ball of your right foot on the edge of a step. Place your left foot forwards with your knee slightly bent. Start by lifting up the right heel so your calf muscle is contracted, then slowly lower the heel back down, keeping your calf relaxed and feeling it elongate. Hold this stretch for two seconds and repeat 20 times. Switch legs and repeat.



LOWER CALF MUSCLE STRETCH

Standing on the floor, place your right foot behind your left foot, close together but not touching. Slowly bend both knees and sink down to the floor while your bottom moves backwards (as though you are lowering on to a chair), and you will feel a stretch in your lower calf muscle (soleus). Hold this stretch for 10-15 seconds and ideally repeat five times on each side.



UPWARDS CALF MASSAGE

Use a massage stick roller in the centre of the calf. Apply a moderate pressure at the bottom of the calf and slowly move the roller upwards to the back of your knee; continue for two minutes. Repeat for the inner and outer parts of your calf muscle.