

# PHYSIO4ALL

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## **Chronic Compartment Syndrome**

Pain in the shin and calf may sometimes be due to a build-up of pressure within the calf during exercise, this is known as chronic compartment syndrome.

### **Symptoms**

Pain, along with a feeling of tightness is felt in the calf or sometimes in the front part of the shin, in some cases there may also be pins and needles or numbness. Tightness or pain will usually come on a short time after the commencement of exercise (especially running), remain constant or intensify while exercise continues and ease with rest.

### **How does it occur?**

There are more than ten muscles that run between the knee and the ankle and they are divided into four sections (compartments) by sheets of connective tissue (fascia). When running, increases in blood flow and tissue temperature result in increased calf muscle volume. Because fascia is tough and relatively inflexible, increased muscle volume causes increased pressure within the compartments of the calf.

If the fascia is too tight, increased pressure may restrict blood supply to soft tissues and nerves causing pain and/or sensory disruptions such as pins and needles or numbness.

### **Management**

Treatment of chronic compartment syndrome involves deep soft tissue massage techniques (myofascial release) and a period of reduced activity. Firm pressure is applied to help free-up the fascia and break up areas of localised adhesions or scar tissue. Tight, short calf muscles are very often seen in patients with this condition, if this applies stretches will also be prescribed. Your physiotherapist may also examine your foot biomechanics and make recommendations regarding appropriate footwear.

In the event that symptoms do not respond to conservative measures, surgery may be considered. This involves releasing and possibly removing part of the fascia to prevent pressure build-up during exercise.

### **Physiotherapy Tips**

1. Discontinue running to allow symptoms to settle.
2. Maintain fitness cycling or in the water.
3. Stretch calves and replace worn shoes.
4. Carefully plan a progressive return to running, this will start with short runs on soft, flat surfaces.

### **Other sources of shin pain**

1. Calf, peroneal or tibialis posterior muscle strain.
2. Medial tibial stress syndrome

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