
A common presentation in practice, and a common dilemma for GPs. The 3 main diagnoses are:

- **Medial Tibial Stress Syndrome (MTSS):**
  - Commonly known as “shin splints” & usually bilateral. Caused by painful stress reaction of bone
  - **Exertional diffuse/linear lower leg pain on posterotibial border; starts immediately on exercise**
  - Chronic presentations more likely in women, increased BMI & excessive forefoot pronation
  - Treat with “relative rest” then graded running + strengthening & stretching exercises of calves
  - **Advise patients NOT to “run through the pain”** and to also check suitability of running shoes

- **Chronic Exertional Compartment Syndrome (CECS):**
  - Ischaemic disorder due to swelling of tibialis anterior; common – 50% of exercise-induced lower leg pain
  - Median onset 20y & equally common in men & women. More common in diabetes
  - **Exertional leg pain & tenderness elicited in middle of muscle compartment not on the bone;** pain begins after set duration, is predictable & increases in severity. Subsides on stopping
  - **Increased risk of acute compartment syndrome; if CECS suspected - refer**

- **Tibial Stress Fractures:**
  - Suspect in those with a recent drastic increase in activity levels, repeated excessive activity with limited rest, **and** focal tenderness and oedema
  - Plain XR is 1st line investigation. If negative, repeated after 2-3 weeks as it can take this long to become apparent. If urgent diagnosis required, MRI or bone scintigraphy should be considered
  - Discuss/refer for specialist advice. “Relative rest”, including the use of non-weight bearing crutches if required, and analgesia. Thereafter a graded increase in exercise is prescribed