

Lateral Compartment Syndrome after Inversion Sprain

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Presentation / Workup

- 17 year-old healthy athletic male
- Right calf pain and dorsal foot numbness one day after inversion sprain during soccer
- MRI concerning for lateral compartment syndrome with peroneus muscle tear
- Stryker 27 mmHg, diastolic BP 81 mmHg

Clinical Course

- Patient was ambulatory and comfortable
- Admitted for serial exams
- Pain worsened overnight, new dorsiflexion deficit
 - Stryker pressures 47 & 53 mmHg
- OR for anterior/lateral two-compartment fasciotomy
 - Notable for muscle tear consistent with MRI, retained hematoma, nonviable peroneus muscle
- Required serial OR debridement of nonviable muscle, vac changes
- Closed on POD 7 from index operation

Outcome

- Patient discharged with CAM boot for foot drop
- Completed PT, now able to ambulate without CAM boot / foot drop, athletic ability remains diminished

Discussion

- Calf compartment syndrome following non-traumatic athletic injury (usually sprain) has been reported less than 20 times
- Lateral compartment most common
- Mechanism believed to be bleeding from torn muscle

