



Sever's disease, also known as calcaneal apophysitis, is **painful inflammation** of the **calcaneal apophysis**. It is the most common cause of heel pain in growing children.

PRESENTATION

- Pain with **heel compression**
 - **Worsens with weight bearing, running, or jumping**
 - Pain **resolves with rest**
 - **No pain in the morning**
- No swelling, erythema, or skin changes
- Tight Achilles tendon
- May have limp

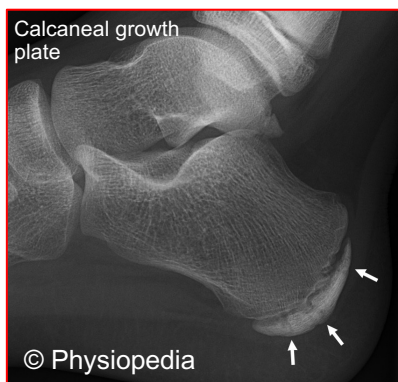
Can be unilateral or bilateral

PHYSICAL EXAM

- **SEADS**: inspection for **swelling, erythema, atrophy, deformity, and scars**
- Tenderness on palpation of heel
- Worse heel pain standing tiptoe
- Decreased dorsiflexion
- Biomechanical abnormalities
- Gait assessment; assess for limp



Squeeze test: mediolateral compression of the calcaneal growth plate elicits pain



PATHOPHYSIOLOGY

- Affects **active children**, especially during **pubertal growth spurt** or at the start of the sports season
- Caused by **repetitive microtrauma** on the **unossified apophysis**
- Due to **traction of the Achilles tendon at the apophysis**

RISK FACTORS

- High physical activity
- Running on hard surfaces
- Poor footwear
- Genu varum, pes cavus, or pes planus
- Weak dorsiflexion
- Achilles tightness
- Obesity



DIAGNOSIS

Sever's disease is a **CLINICAL DIAGNOSIS**

Generally, investigations are unnecessary; however, in situations where a diagnosis is not certain, the following imaging studies can be considered:

- **X-ray:** exclude other trauma
- **Ultrasonography:** can reveal fragmentation of the calcaneal growth plate. Can exclude Achilles tendinopathy and bursitis.
- **MRI:** can localize inflammation to the calcaneal apophysis



MANAGEMENT

- **Stop or modify activities** that cause pain
- **RICE:** rest, ice, compression, and elevation
- **Taping** the arch and heel
- Nonsteroidal anti-inflammatory drugs (**NSAIDs**) PRN
- Silicone heel cup
- **Shoes** with good medial arch support or arch support cushions
- Over the counter **orthotics** to correct secondary foot malalignment

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Dr. Katharine V. Jensen (Pediatrics Resident, University of Alberta) and Dr. Jeanine McColl (Pediatric Rheumatologist, University of Calgary) for www.pedscases.com