



SEVERS DISEASE

WHAT IS SEVERS DISEASE?

Severs disease can be defined as a traction of the muscle-tendon unit of the calf on the apophysis (developmental outgrowth of bone) on the heel bone (calcaneus).

ANATOMY:

The gastrocnemius and soleus are the 2 major muscles of the calf. They are joined onto the heel via the Achilles tendon. During skeletal development this insertion point is on a growth plate that is known as the apophysis.



MECHANISM OF INJURY:

When the calf muscle contracts, it pulls the Achilles tendon and subsequently pulls on the heel bone attachment. When this pulling force is too repetitive and/or too forceful an inflammation of the growth plate can occur, which results in pain and tenderness.

INJURY FACTS:

- Occurs usually between the ages of 9-13
- Greater occurrence amongst males
- 60% of the time it is bilateral in nature

DEVELOPMENTAL RISK FACTORS TO INJURY:

- Children have weaker articular cartilage compared to adults
- Growth plate is thicker and more fragile during adolescence
- Bone mineral density decreases during growth periods
- Increases in muscle mass precede increases in bone mass
- Reduction in flexibility during growth periods



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FURTHER CAUSES OF SEVERS DISEASE:

- Repetitive trauma
- Recent growth spurt
- Recent changes in training loads or beginning new sports
- Footwear changes
- Calf muscle tightness
- Poor foot and body biomechanics

SIGNS AND SYMPTOMS:

- Pain at the back of the heel
- Often there is night time and morning stiffness present
- Night time ache
- Pain after sporting activities
- Palpable lump on the heel
- Tenderness on touching the area

PROGNOSIS:

Severs disease is a self limiting condition that often resolves as the adolescent goes through skeletal maturity which can be anywhere from 6 months to 2 years. Adolescents can often continue sport during this time but training loads may need to be modified e.g. not playing every football code possible.

PHYSIOTHERAPY TREATMENT OPTIONS:

- Deep tissue massage
- Graduated return to sport program
- Biomechanical analysis
- Stretching and mobility exercises
- Orthotic prescription
- Stretching program
- Education
- Pain relief strategies
- Training load modification

