

# CALCANEAL APOPHYSITIS (Sever's Disease)

## What is Calcaneal Apophysitis?

Sever's Disease is defined as a **traction apophysitis of the calcaneus** - meaning: inflammation of the growth plate located at the back of the calcaneus (*heel bone*). The term Sever's Disease is no longer used due to the fact it is not a 'disease'. Calcaneal Apophysitis more accurately describes what is actually occurring.

## Who Does it Affect?

CA most often presents in children aged 8-13yrs

## What Causes Calcaneal Apophysitis?

The Achilles tendon attaches itself to the back of the calcaneus, and in those children/adolescents who have not reached skeletal maturity a growth plate exists at this tendon insertion point.

During physical activities there are increased forces & tension placed on the Achilles tendon. If these forces are in excess of what the growth plate can tolerate inflammation results.



## Symptoms/Characteristics

- Pain located at the back of and/or underneath the heel.
- Pain on palpation around the side of the heel & around the Achilles tendon insertion.
- Pain is typically worse during and after activity.
- Children can often present with an intermittent limp and/or toe-walking, in addition to complaining of pain.
- Swelling/Inflammation at the back of the heel (*swelling not always present*)

## Contributing Factors

- **Footwear** (*inappropriate for specific activity or biomechanical requirements*)
- **Insufficient lower limb strength & stability** (*eg: weakness in the calf, hamstrings, gluteals & core*)
- **Biomechanics/Foot Posture** (*higher scores on the foot posture index FPI = increased pronation*)
- **Problems with exercise/training** (*insufficient warm up, sudden increases in activity, poor technique etc...*)
- **Movement Imbalances** (*eg: ankle joint range of motion*)
- **Poor proprioception** (*balance*)
- **Anthropometrically Variables** (*Are often, but not always; taller, heavier and have a higher BMI*)

## Treatments

Current research does not give a general consensus on the best treatment approach.

There is no consensus as the combination of risk factors and treatment requirements are unique to each individual case.

As with any musculoskeletal condition the most important step is receiving a thorough assessment & correct diagnosis. Once the individual factors for each child have been identified a tailored treatment program can then be devised.

Forster Tuncurry Sports Podiatry utilises advanced biomechanical assessment technologies and implements assessment & treatment protocols in line with the very latest research, to ensure each and every patient receives the best possible care and treatment outcome.

## **Possible Treatments Based on Individual Biomechanical Assessment**

Corrective Exercises

Footwear

Orthotic Therapy

Movement Re-Training

Heel Lifts

Manual Therapies



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