PodiatryNZ

Sever's Disease

Information Sheet

Despite its name, Sever's disease is not a disease but a painful syndrome that affects growing children. It is medically known as calcaneal apophysitis, and is often referred to as '**growing pains**' at the back of the heel. It is the most common cause of heel pain in children between 8 and 14 years.

Relevant terminology

When we are born, growth plates are present in all of our bones. This is where new bone is added and how our bones increase in size. When we reach full maturity, the growth plate will fuse and turn to solid bone - this is technically when we stop growing. While present, growth plates are more vulnerable than the strong surrounding bone. Hence, when strong forces are applied to a bone, they are more likely to become irritated (damaged) and inflamed.

What are the symptoms?

Symptoms typically occur during a period of growth in kids, particularly between the ages of **eight and fourteen years old**. They can include:

- Pain at the back of the heel that can be sharp or aching
- Pain usually activity related
- Tightness through calves down to the heel, reluctance to put weight on heel often seen as walking on toes
- Swelling at the back of the heel
- Pain that is reduced with rest and ice, but comes back with activity
- Common in active children

What causes Sever's disease?

Sever's disease is caused by irritating the growth plate at the back of the heel. This irritation is thought to be due to a tight or overused achilles tendon that continues to pull on the back of the heel. Recent research supports impact loading, e.g. jumping as another cause. It may also occur from impact to the heel bone itself. The cause of the achilles tendon tension include:

- A faster rate of bone growth than muscle growth, resulting in a shorter achilles tendon
- Increasing the intensity of physical activities that repetitively pull on the heel
- Running sports
- Soccer boots and low-heeled shoes

Managing Sever's disease at home

The key to managing Sever's disease is not only to settle the painful symptoms, but also to treat the cause and reduce the tension on the heel bone. If you suspect that your child has Sever's disease, we highly recommend that you book an appointment with your Podiatrist. Your podiatrist will diagnose and perform a comprehensive muscular skeletal examination to create a management plan for your child.

In the meantime, you can:

- **Rest** - rest the feet and legs, avoid physical activity and any other activities that cause your kids pain at the back of the heel
- **Ice** - use an ice pack to help reduce swelling and pain. Make sure you don't apply the ice for too long (up to 20 minutes every 2 hours) and that the ice does not come in direct contact with the skin (i.e. wrap in a towel)
- **Wear supportive shoes** like sneakers to help support and stabilise the foot. Avoid walking with bare feet and wearing low-set shoes

How your Podiatrist can help

Your podiatrist will diagnose and perform a comprehensive muscular skeletal examination to create a management plan for your child. This may include:

- Orthotics to correct any biomechanical issues and minimise loading on the growth plate
- Stretching and strengthening of relevant muscle groups
- Footwear assessment - to ensure the footwear is helping and not hindering recovery
- Activity modification to prevent the onset of painful symptoms throughout the treatment
- Education about how to best manage the pain post activity

It is important to follow your Podiatrist's instructions about the stretching and strengthening exercises carefully as they will be prescribed specifically for your child and the severity of their symptoms. Beginning incorrect stretches or stretches too early or with a high intensity may instead further irritate the growth plate, so please complete this under their guidance and supervision.

Disclaimer: This document is an informative guide only and is not a tool for diagnosis. If you suspect that your child has Sever's disease or develops heel pain, we recommend that you see your Podiatrist for an accurate diagnosis and an appropriate treatment plan. Referrals are not required to see your Podiatrist.