

# calcaneal apophysitis

Calcaneal apophysitis (Sever's Disease) is an inflammation of the growth plate (apophysis) of the heel bone (calcaneus). It is the most common cause of heel pain in children and adolescents.

## what is the cause?

The inflammation of the heel growth plate is caused by overusing the foot with repetitive heel strikes. The direct impact irritation is made worse by the opposing tension forces of the plantar fascia and heel cord (Achilles tendon). It is commonly seen in immature athletes participating in running and jumping sports. Wearing shoes with poor heel padding or poor arch supports may contribute to the pain.



## what are the symptoms?

Patients typically complain of heel pain. The pain usually increases with activity. It can affect one foot or both feet. It occasionally can cause swelling. The child usually has a tight heel cord and pain with squeezing of the heel. Pain typically improves with rest from activities, but may become severe enough to limit activities or cause persistent painful weightbearing.

## diagnosis

A physical exam is usually all that is necessary for diagnosis. In some cases, an X-ray of the heel bone is taken to visualize the growth plate and rule out other causes of pain.

## treatment

The goal of treatment is to return your child to his/her sport or activity as soon as possible. The primary treatment is rest with ice and an anti-inflammatory medicine (such as ibuprofen). Heel cups can be used in the shoe to cushion the heel and off-load the tension forces. Your provider will also review heel cord stretches. Formal physical therapy may even be prescribed. Occasionally pain is severe enough that your child may require a short period of immobilization in a boot or cast.

Your child's return to activity is determined by how soon the symptoms resolve, not by how many days or weeks it has been since the pain began. In general, the longer your child has symptoms before starting treatment, the longer recovery will take.

Recurrence of heel pain is very common as your child experiences growth. If the heel hurts, your child should rest from his/her activity for several days and then go back gradually. Before returning, your child should be able to jog painlessly, then sprint painlessly, and then be able to hop on the painful foot painlessly. If at any time during the process the heel pain returns, he/she should rest for 3-4 days until the pain is gone before trying to return again.

