

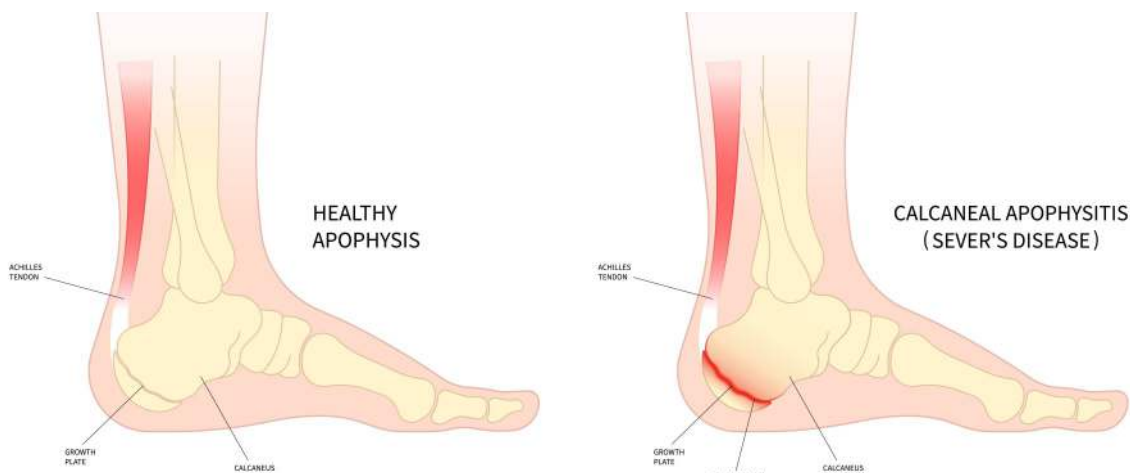


The Association of Paediatric Chartered Physiotherapists

APCP Information - Calcaneal Apophysitis / Severs Information for Parents and Carers

What is Severs?

Severs is a common condition causing heel pain often seen in children aged between 8-15, but can occur in younger children too. It is especially common in children who participate in frequent high impact physical activity, and can be worse during periods of growth. It is the most common cause of heel pain in this age group.



What causes Severs?

The calf muscles at the back of your leg, attach via a tendon into your heel bone (calcaneus) around the area of the growth plate. Repeated activity such as running and jumping can cause repeated stress and strain to the growth plate in the bone causing it to become inflamed and painful.

The following factors can increase your risk of developing Severs:

- Frequent physical activities that include running, jumping or high impact, such as football, basketball, and athletics.
- Tight muscles in your calf
- Weak muscles in the front of your shin
- Poor footwear especially while playing sport
- High BMI / being overweight

Severs can be seen alongside other biomechanical foot postures such as pes planus (flat feet) pes cavus (high arches) or genu varum (bowed legs)

Common symptoms of Severs

- Severs can affect one or both feet.
- It is more commonly seen in boys
- It can be aggravated by a growth spurt
- You generally don't have pain in the morning or after rest, and pain will get worse on activity.
- Limping or walking on toes is sometimes seen due to pain
- You will likely have tenderness of the heel area
- You may have restricted movement into dorsiflexion (lifting your ankle and toes up), or tightness in your calf muscles

Diagnosis

Severs can usually be diagnosed from your symptoms and physical examination. X-rays and imaging are not usually required, unless other conditions need to be ruled out.

Management

A period of rest initially is recommended to allow the symptoms to settle. Managing your symptoms well may allow you to continue with some activities.

Some things that may help are:

- The use of an ice pack when sore or just after activity (follow instructions on pack)
- Painkillers (as advised by your doctor)
- Reducing the amount of activity you do
- Adapting the types of sports you do during periods of flare up, to reduce impact – such as swimming or cycling.
- Stretches to loosen up your muscles so that they don't pull so tightly on your bones (only do these when you are not in pain)
- Making stretching a regular part of your warm up and cool down when doing sports
- Wearing supportive and cushioned trainers, or using a heel cup or heel pads.

Sport or physical activity is not likely to cause any permanent damage, but may make your pain worse. If the pain is affecting how you do your sport, you may need to think about how often you train. Reducing strenuous or vigorous sport may be sensible until the pain lessens to a level you can cope with. You should aim to reduce how long, how often, and also how much exercise you do. This is especially important if this exercise includes running or jumping. You may need to consider a complete break from sport for a while if pain remains severe.

Will it get better?

The pain usually goes away within a few months without any treatment by following the advice given above. Unfortunately, some symptoms can last for 12-24 months. The good news is you will eventually grow out of it! Once your bones stop growing you won't have any more symptoms!

References

James A M et al (2013) "Effectiveness of interventions in reducing pain and maintaining physical activity in children and adolescents with calcaneal apophysitis (severs disease) a systematic review" Journal of foot and ankle Research 6 (16)

Denise R Ramponi et al (2019) "Severs Disease (calcaneal Apophysitis)" Advanced Emergency Nursing Journal

Arnold A et al (2017) "overuse physel injuries in young athletes2 Sports Health March/ April 9 (2) 139-147

This leaflet has been produced following a review of relevant literature and where there is lack of evidence, a consensus of expert opinion is agreed, correct at time of publication.

APCP

<https://apcp.csp.org.uk>

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