

Sever's Disease – Calcaneal apophysitis

Heel pain in school-age children is most often caused by a so-called calcaneal apophysitis (Sever's disease). The trigger is usually an overload of the growth zone (= apophysis) of the heel (= calcaneus) due to repeated excessive stress. That is why it also occurs more frequently in physically active and sporty children (in particular so-called "stop and go" sports such as soccer or indoor sports). In 60% of the cases, both sides are affected.



How is the diagnosis made? Is it necessary to perform an X-ray or MRI?

In most cases the diagnosis is made by taking the medical history and by a short physical examination. As a rule, children and adolescents with calcaneal apophysitis manifests as stress-dependent heel pain. Often the children bear weight over forefoot or roll over the outer edge of the foot which can also result in limping. During the examination the pain can sometimes be triggered by pressure inside part of the heel. Also walking on the heels may be painful. The calf muscles are often short. In most cases with such typical presentation, no additional examinations are needed.

X-rays or MRI examinations are only required in cases resistant to therapy, after an accident or with children that show additional symptoms (e.g. fever, redness, swelling, night pain).

How do you treat calcaneal apophysitis?

Treatment of calcaneal apophysitis is always conservative. Most important is the temporary reduction of recurrent strains on the heel. Silicone heel pads which may act towards shock absorption have proven helpful. Occasionally, a temporary restriction in sports activities is also recommended. Physiotherapy and daily self-performed exercises with a focus on stretching and fascial training (black roll) of the calf muscles are the most important part of the treatment. In rare cases, a temporary immobilization with a plaster cast or night splints (especially in the case of morning pain) are further means of treatment.

Do special shoes or insoles have to be worn?

If there is a suspicion of an incorrect loading of the foot, not only the patient, but also the worn footwear must be examined more closely. It is observed that a significant number of foot and knee problems are related to inadequate footwear. Often the footwear (e.B. soccer shoes, shoes without proper imbedding) lacks adequate heel cushioning and passive heel stabilisation is often insufficient. In children with flat feet a corrective insole can also be equipped with a cushioning heel pad.

Is there a danger for permanent damages?

In the long term the prognosis for this growth-related heel pain is good as it usually disappears after growth has ended. Even in severe cases the symptoms are limited to the time of growth and the symptoms permanently disappear.

Examples of exercises for stretching the calf muscles and achilles tendon:

