



Sports Medicine for Student Athletes

Sever's Disease

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What is Sever's Disease?

Sever's Disease (also known as calcaneal apophysitis) is a type of bone injury in which the growth plate in the lower back of the heel, where the Achilles tendon attaches, becomes inflamed and causes pain. Sever's Disease is the most common cause of heel pain in children, especially those who exercise or play sports on a regular basis. It tends to occur particularly with those sports that involve running and jumping on hard surfaces such as soccer, basketball, and gymnastics.

What causes Sever's Disease?

Sever's Disease most commonly occurs in skeletally immature patients during growth spurts that occur during adolescence. For girls, growth spurts typically occur between the ages of 8-13. For boys, growth spurts typically occur between the ages of 10-15. During growth spurts, muscle lengthening typically lags behind in bone lengthening. Therefore, with repetitive activities such as running and jumping, chronic stress and tension is placed on the already tight Achilles tendon at the site of the attachment on the growth plate causing Inflammation and pain.

Signs and Symptoms of Sever's Disease

- + Heel pain in one or both heels
- + Difficulty walking - possible "toe-walking" to avoid stretching the Achilles tendon
- + Back of the heel may appear red and swollen
- + Pain and/or stiffness in the feet after walking in the morning
- + Pain when the heel is squeezed on both sides

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If Sever's Disease is suspected, how should it be treated?

It is recommended to follow up with a medical professional for proper diagnosis. Once a diagnosis is made, the most common form of treatment is rest from the activity that causes pain with relieves the pressure on the heel bone.

It may also be recommended to perform stretching and strengthening exercises of the lower leg. It is important that with all stretching exercises, particularly of the calf muscles, that they are done very gently and keep in a pain free range. Application of ice to the back of the heel may also help decrease pain and inflammation (recommended 15-20 minute application). All treatments should be guided by a medical professional.

It is also important that athletes remember to wear comfortable, supportive shoes. Even though direct contact on the back of the heel may be painful, it is important that the feet and arches are supported - not wearing supportive shoes may actually exacerbate the condition. Typically, Sever's Disease will resolve itself once the athlete is skeletally mature.



Resources: Magee, D. (2008). Orthopedic Physical Assessment (5th ed). St. Louis, MO: Saunders, Elsevier. | Houglum, P. (2010). Therapeutic Exercises for Musculo-skeletal Injuries (3rd ed). Champaign, IL: Human Kinetics <http://www.heel-and-darchpainclinic.com.au/media/images/thm-severs-disease.jpg> | <http://www.epodiatriy.com/heel-pain-children.htm>

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