CAPITAL FOOT & ANKLE CENTERS
Joe Gonzalez, DPM

Okemos
2270 Jolly Oak Rd
Suite 1
Okemos, MI 48864
Fax 517-913-5996
517-853-8951

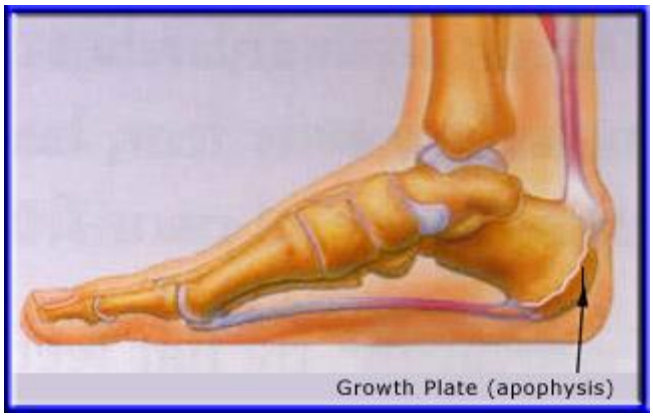
Grand Ledge
1005 Charlevoix Dr
Suite 180
Grand Ledge, MI 48837
Fax 517-913-5996
517-853-8951

St. Johns
306 E. Elm St
Suite B
St. Johns, MI 48879
Fax 517-913-5996
989-224-4880

www.FootLine.com

Physician & Surgeon of the Foot & Ankle

Calcaneal Apophysitis (Child Heel Pain)



Heel pain is very uncommon in children. Of those children who do get heel pain, by far the most common cause is a disturbance to the growing area at the back of the heel bone (calcaneus) where the strong Achilles tendon attaches to it. This is known as **Sever's disease** or **Calcaneal Apophysitis** (inflammation of the growth plate). It is most common between the ages of 8 and 14 years of age. These are one of several different 'osteochondroses' that can occur in other parts of the body, such as at the knee (Osgood-Schlatters Disease).

Anatomy
On the posterior aspect of the heel bone (calcaneus) there is a growth plate which usually starts to close sometime between 8 and 14 years old. At around age 14, when growth is nearly complete, these two bony areas fuse together. Sever's disease or calcaneal apophysitis is usually considered to be due to damage or a disturbance in this area of growth, known as the calcaneal apophysis.

Symptoms:
Pain is usually felt at the back and side of the heel bone. Sometimes there may be pain at the bottom of the heel. The pain is usually relieved when the child is not active and becomes painful with sport. Squeezing the sides of the heel bone is often painful. Running and jumping make the symptoms worse, especially sports involving excessive shifting or cutting back and forth (i.e. football, basketball, soccer). One or both heels can be affected. In more severe cases, the child may be limping.

Cause:
The cause of Sever's disease is not entirely clear. It is most likely due to overuse or repeated minor trauma that happens in a lot of sporting activities - the growth plate between the two parts of the heel bone cannot take all the shear stress of the activities. A tight calf muscle is also common in those who develop calcaneal apophysitis. A pronated or flat foot is also more common, due to uneven weightbearing on the back of the heel bone. Children who are heavier are also at greater risk for developing calcaneal apophysitis.

Treatment:

- cut back on sporting activities - don't stop, just reduce the amount until symptoms improve (if the condition has been present for a while, a total break from sport may be needed later)
- avoid going barefoot
- an arch support and soft cushioned heel raise is important (this reduces the pull from the calf muscles on the growth plate and increases the shock absorption, so the growth plate is not knocked around as much).
- stretch the calf muscles, (provided the stretch does not cause pain in the area of the growth plate)
- the use of an ice pack after activity for 20 mins is often useful for calcaneal apophysitis - this should be repeated 2 to 3 times a day.

If the symptoms are bad enough, anti-inflammatory medications may be needed. In rare instances, the lower limb may need to be put in a cast for 2-6 weeks to give it a good chance to heal.

After the calcaneal apophysitis resolves, prevention with the use of stretching, good supportive shock absorbing shoe and arch supports with heel raises are important to prevent it happening again. A custom-molded orthotic device may be fabricated by your doctor.

Long-Term Consequences:
This condition is self limiting - it will go away when the two parts of bony growth join together. Fortunately, there are no known long term complications associated with calcaneal apophysitis, even with the most severe of cases.

The doctors at **Capital Foot & Ankle Centers** are well-trained in identifying this problem and are usually able to create a solution which will allow the child to continue participating in sports.