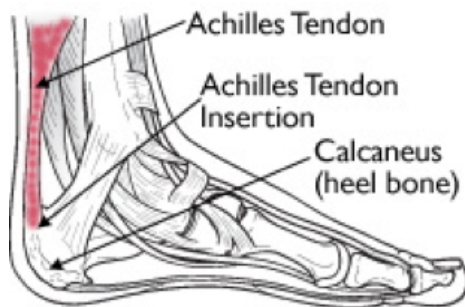


# Sever's Disease

## What is Sever's Disease?

Sever's Disease, also known as calcaneal apophysitis is when the growth plate of the heel bone becomes irritated and inflamed. This growth plate attaches to the Achilles' tendon and in active children is a common cause of heel pain.



## What causes Sever's Disease?

As children go through growth spurt between the ages of 8 to 13, the bones grow faster than the tendons. As the tendons become stretched and tight, they pulling on the bone. With repetitive stress this can cause damage to the growth plate resulting in pain and irritation.

Factors that can contribute to Sever's Disease are:

- Sports with running or jumping on hard surfaces
- Standing too long
- Poor fitting shoes with little or no support
- Overuse or too much exercising during growth spurts

## What are symptoms of Sever's Disease?

Most commonly children with Sever's Disease will present with pain and/or tenderness in one or both heels. Pain is normally at the back of the heel but it can also radiate toward the sides and bottom of the foot.

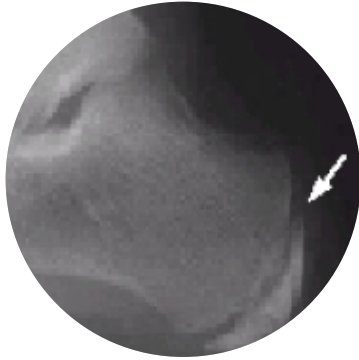
Children with Sever's Disease will have:

- Heel pain and limping, especially after activities such as running or jumping
- Difficulty walking
- Swelling or redness in the heel region
- Discomfort or stiffness in the feet in the morning

# Sever's Disease

## How is Sever's Disease Diagnosed?

The physician will examine your child's heel to test for areas of pain, and will probably order an x-ray to rule out the possibility of a broken bone.



## Treatment options

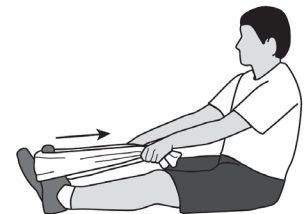
The best treatment for Sever's Disease is to decrease overall activity level to alleviate irritation at the heel bone. Along with rest the following can be used:

- **Heel lift** can be used to ease the discomfort while walking
- **Icing** the heel several times a day to reduce swelling and pain.
- **Stretching** - a program for stretching the Achilles Tendon may be prescribed by your physician to prevent reoccurrence
- **A walking cast** can be prescribed for severe cases to reduce the stress at the heel

As soon as you can tolerate pressure on the ball of your foot, begin stretching your ankle using the towel stretch. When this stretch is too easy, try the standing calf stretch and the soleus stretch and slowly work through all of the exercises.

## Phase 1: Stretching

1. **Towel Stretch** - Sit on a hard surface with your injured leg stretched out in front of you. Loop a towel around the ball of your foot, and pull the towel toward your body. Be sure to keep your knee straight. Hold this position for thirty seconds and repeat three times.



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2. **Standing Calf Stretch** - Facing a wall, put your hands against the wall at about eye level. Keep the injured leg back, and the heel of your injured leg on the floor. Turn your injured foot slightly inward as you slowly lean into the wall, until you can feel a stretch in the back of your calf. Hold for thirty seconds. Do this several times a day.

3. **Standing Soleus Stretch** - Stand facing a wall with your hands on the wall at about chest level. With both knees slightly bent and the injured foot back, gently lean into the wall until you feel a stretch in your lower calf. Once again, slightly toe in with the injured foot and keep your heel down on the floor. Hold this for thirty seconds. Return to the starting position, and repeat three times.



4. **Ankle Range of Motion** - You can do this exercise sitting or lying down. Pretend you are writing each of the letters of the alphabet with your foot. This will move your ankle in all directions. Do this twice.

## Phase 2: Strengthening

1. **Double Heel Raises** - Holding onto a table, with both feet lift heels off of the ground. Do this 10 times twice a day. When you can easily do this without pain move on to single heel raises.

2. **Single Heel Raises** - Holding onto a table, balancing on your injured side, lift your heel off the ground. Do this 10 times, twice a day. Once this exercise can be done without pain, proceed to single heel raises without holding onto anything.



3. **Lunges** - Overall strengthening will help prevent future injuries. Lunges help strengthen the thigh and hip muscles. Stand with the left foot behind the right foot, slightly bending the right leg to make a 90 degree angle with the right knee. Keeping the back straight, bend the left leg lowering yourself to the ground. You should feel a stretch in the left groin. Hold for 5 seconds, and switch legs. Repeat 10 times.