

# Pediatric Heel Pain

Heel pain is a symptom, not a disease. Heel pain problems in children are often associated with these signs and symptoms:

- Pain in the back or bottom of the heel
- Difficulty participating in usual activities or sports
- Limping
- Walking on toes

The most common cause of pediatric heel pain is a disorder called *calcaneal apophysitis*, which usually affects 8 to 14 year olds. However, pediatric heel pain may be the sign of many other problems, and can occur at younger or older ages.

## Causes of Pediatric Heel Pain

Conditions that cause pediatric heel pain include:

- **Calcaneal apophysitis.** Also known as *Sever's disease*, is the most common cause of heel pain in children. Although not a true "disease," it is an inflammation of the heel's growth plate due to muscle strain and repetitive stress, especially in those who are active or obese. This condition usually causes pain and tenderness in the back and bottom of the heel when walking, and the heel is painful when touched. It can occur in one or both feet.
- **Tendo-Achilles bursitis.** This condition is an inflammation of the fluid-filled sac (bursa) located between the Achilles tendon (heel cord) and the heel bone. Tendo-Achilles bursitis can result from injuries to the heel, certain diseases (such as juvenile rheumatoid arthritis), or wearing poorly cushioned shoes.
- **Overuse syndromes.** Because the heel's growth plate is sensitive to repeated running and pounding on hard surfaces, pediatric heel pain often reflects overuse. Children and adolescents involved in soccer, track, or basketball are especially vulnerable.
  - One common overuse syndrome is *Achilles tendonitis*.
    - Usually occurs in children over the age of 14
  - Another overuse syndrome is *plantar fasciitis*
    - Inflammation of the band of tissue (the plantar fascia) that runs along the bottom of the foot from the heel to the toes
- **Fractures.** Sometimes heel pain is caused by a break in the bone
  - *Stress Fractures:*
    - Hairline breaks resulting from repeated stress on the bone
    - Often occur in adolescents engaged in athletics, especially when the intensity of training suddenly changes.
  - *Acute Fractures*
    - Occurs in children under age of 10
    - Can result from simply jumping 2 or 3 feet from a couch or stairway

## Treatment Options

The treatment selected depends upon the diagnosis and the severity of the pain.

For *mild heel pain*, treatment options include:

- **Reduce activity:** The child needs to reduce or stop any activity that causes pain.
- **Cushion the heel:** Temporary shoe inserts are useful in softening the impact on the heel when walking, running, and standing.

For *moderate heel pain*, in addition to reducing activity and cushioning the heel, the foot and ankle surgeon may use one or more of these treatment options:

- **Medications:** Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, help reduce pain and inflammation.

- **Physical therapy:** Stretching or physical therapy modalities are sometimes used to promote healing of the inflamed tissue.
- **Orthotic devices:** Custom orthotic devices to help support the foot properly.

For severe heel pain, more aggressive treatment options may be necessary, including:

- **Immobilization:** Some patients need to use crutches to avoid all weight-bearing on the affected foot. In some severe cases of pediatric heel pain, the child may be placed in a cast to promote healing while keeping the foot and ankle totally immobile.
- **Follow-up measures.** After immobilization or casting, follow-up care often includes use of custom orthotic devices, physical therapy, or strapping.

**Surgery.** There are some instances when surgery may be required to lengthen the tendon or correct other problems.