

Leg Pain

Definition

- Pain in the legs (hip to toes)
- Includes hip, knee, ankle and toe joints
- The pain is not due to a known injury
- Minor muscle strain and overuse injury are covered in this topic.

Causes

- Main Causes: Muscle spasms (cramps) and strained muscles from [overuse injury](#) (e.g., excessive running or jumping). Up to 50% of all injuries seen in pediatric sports medicine are related to overuse.
- Muscle Cramps: Brief pains (1 to 15 minutes) are usually due to muscle spasms (cramps). Foot or calf muscles are especially prone to cramps that occur during exercise or that awaken your child from sleep. Muscle cramps that occur during exercise are also called heat cramps. They often respond to extra water and salt.
- Strained Muscles: Continuous acute pains (hours to 7 days) are usually due to overstrenuous activities or forgotten muscle injuries during the preceding day. Can occur in arms or legs.
- Growing Pains: 10% of healthy children have intermittent, harmless pains that are often referred to as [growing pains](#) (although they have nothing to do with growth). Growing pains usually occur in the calf or thigh muscles. They always occur on both sides, not one side. They occur late in the day and are probably due to running and playing hard. They usually last 10 to 30 minutes.
- Viral Infections: Muscle aches in both legs are common with viral illness, especially [influenza](#).
- Serious Causes: Fractures, deep vein thrombosis, neuritis (nerve infection) and [arthritis](#) (joint infection). Septic arthritis (a bacterial infection of any joint space) is a medical emergency. The symptoms are severe joint pain, resistance to any joint movement and a high fever. Toxic synovitis of the hip is a benign condition that can imitate a septic arthritis of the hip. The symptoms are a limp, moderate pain and usually no fever. Toxic synovitis tends to occur in toddlers following excessive jumping.



Care Advice

1. Treatment For Muscle Cramps:

- a. Muscle cramps in the feet or calf muscles occur in a third of children.
- b. During attacks, stretch the painful muscle by pulling the foot and toes upward as far as they will go to break the spasm.
- c. Stretch the muscle in the direction opposite to how it is being pulled by the cramp or spasm.
- d. Apply a cold pack or ice bag wrapped in a wet cloth to the painful muscle for 20 minutes.
- e. If these are heat cramps (occurring during exercise on a hot day), give lots of water and sports drink in addition to stretching the muscle and a cold pack.
- f. Future attacks may be prevented by daily stretching exercises of the heel cords (stand with the knees straight and stretch the ankles by leaning forward against a wall). Also give the feet more room to move at night by placing a pillow under the covers at the foot of the bed. Also be sure your child gets enough calcium in the diet.

2. Treatment For Strained Muscles From Excessive Use (Overuse Injury):

- a. Apply a cold pack or ice bag wrapped in a wet cloth to the sore muscles for 20 minutes several times on the first 2 days.
- b. Give acetaminophen (e.g., Tylenol) or ibuprofen for pain relief.
- c. If stiffness persists over 48 hours, have your child relax in a hot bath for 20 minutes twice a day, and gently exercise the involved part under water.

3. Treatment for Growing Pains: Usually the pains are mild, don't last long and no treatment is necessary.

- a. Massage of the sore muscles can help the pain go away.
- b. Give acetaminophen (e.g., Tylenol) or ibuprofen if the pain lasts more than 30 minutes.
- c. Prevention: Research has show that daily stretching exercises can prevent most growing pains.

4. Expected Course:

- a. Muscle cramps usually last 5 to 30 minutes.
- b. Once they resolve, the muscle returns to normal quickly.
- c. A strained muscle hurts for 3 to 7 days. The pain often peaks on day 2.
- d. Following severe overuse, the pain may last a week.

When To Call

Call 911 Now (your child may need an ambulance) If

- Not moving or too weak to stand

Call Your Doctor Now (night or day) If



- Your child looks or acts very sick
- Can't stand or walk
- Fever and pain in one leg only
- Can't move a joint normally
- Swollen joint
- Calf pain on 1 side lasts over 12 hours
- Bright red area on skin
- Muscle weakness or can't stand or walk
- Numbness (loss of sensation) present over 1 hour
- Severe pain or cries when leg touched or moved

Call Your Doctor Within 24 Hours (between 9 am and 4 pm) If

- You think your child needs to be seen
- Walks abnormally (has a limp)
- Fever and pain in both legs

Call Your Doctor During Weekday Office Hours If

- You have other questions or concerns
- Cause of leg pain is uncertain
- Leg pain present over 7 days
- Leg pains or muscle cramps are a recurrent chronic problem

Adapted from The American Academy of Pediatrics (2011) at www.healthychildren.org

