



Sports Medicine: Hip Flexor Strain

The hip flexor muscles are in the front of the thigh. They are made up of the iliopsoas (i-lee-uh-**sow**-uhs), sartorius (saar-**taw**-ree-is), and rectus femoris (**rek**-tuhs **feh**-mr-uhs) muscles. They allow the hip to lift up, or flex. Muscle attaches to bone via a tendon. A hip flexor strain occurs when the muscle and tendon attached to the pelvic bone are injured. It may be a partial or a full tear of any, or all, of the hip flexor muscles. A strain is graded from 1 to 3:

- **Grade 1** – is a mild strain. There is a slight pull with tiny tearing. There is no loss of strength, and the muscle and tendon are the correct length.
- **Grade 2** – is a moderate strain. There is tearing of fibers within the body of the tendon, where the bone and tendon meet, or where the muscle and tendon meet. The tendon is longer, and there is usually loss of strength.
- **Grade 3** – strain is a full tear of the tendon. This is rare.

Signs and Symptoms

- A sudden pop feeling in the front of the hip at the time of injury
- Weakness of the hip, especially when trying to pick the leg up or kick
- Loss of fullness in the muscle with a complete rupture (rare)
- Muscle spasm in the front of the thigh
- Pain, tenderness, and swelling over the front of the hip and thigh, often worse with moving the hip or with activity such as running or kicking
- Bruising in the front of the thigh and hip, typically shows up within 48 hours following the injury

Increased Risk

- Prior thigh injury
- Muscle imbalance or weakness
- Poor physical conditioning
- Sports that require repeated stopping and starting (soccer, martial arts, football) or quick starts (ice hockey, track, and field)

Treatment

- Medicine
 - Anti-inflammatory medicines like ibuprofen (Motrin[®] or Advil[®]) or naproxen (Aleve[®]) may be recommended. Take these as directed by your health care provider.
 - You can also use other minor pain relievers like acetaminophen (Tylenol[®]).
- Use of cold and heat
 - Cold should be applied for 10 to 15 minutes every 2 to 3 hours for swelling and after any activity that makes symptoms worse. Use ice packs or an ice massage.
 - Heat may be used before performing stretching and strengthening activities prescribed by your health care provider or athletic trainer. Use a heat pack or warm soak. Apply for 10 to 15 minutes.
- Orthopedic aids
 - Sometimes crutches may be used for the first 24 to 72 hours if the strain is severe.
 - Compression shorts can be helpful at times to reduce pain
- Rehab
 - Stretching and strengthening exercises may be recommended and often a referral to a physical therapist or athletic trainer is made to supervise return to activity.

How to Prevent

- Proper warm-up and stretching before practice or competition.
- Finish the course of rehab before returning to practice or competition.
- Use proper sports technique.
- Maintain good hip and thigh flexibility, muscle strength and endurance, and cardiovascular fitness.

When to Call the Doctor

Call your doctor, health care provider, or the Sports Medicine team at (614) 355-6000 if:

- Symptoms get worse or do not improve in 2 weeks, despite treatment
- New, unexplained symptoms develop

**To schedule an appointment
with Sports Medicine, visit
[NationwideChildrens.org/Sports
MedicineScheduling](https://www.nationwidechildrens.org/SportsMedicineScheduling) or scan this
code with your camera phone.**

