



**NATIONWIDE CHILDREN'S**  
*When your child needs a hospital, everything matters.*

## Helping Hand™

*Health Education for Patients and Families*

# Sports Medicine: Adductor Muscle Strain

Adductors are a group of muscles that go from the pelvic bone down to the inner thigh and knee. These muscles allow the hip and leg to move inward across the body and steady the trunk. An adductor strain is an injury to one of these muscles. Strains can be classified into three grades:

- **Grade 1** is a mild strain with a slight pull and 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 muscle or tendon. The muscle and tendon are longer. There is a loss of strength.
- **Grade 3** strain is a full tear of the muscle or tendon. It is rare.

## Signs and Symptoms

- Pain, tenderness, or swelling over the inner thigh and groin
- Bruising in the groin or inner thigh that occurs within 48 hours of the injury
- Pain, and sometimes limping, with walking that gets worse with activity
- A sudden 'pop' feeling, or sound is heard along the groin or inner thigh at the time of injury
- Muscle spasm in the groin or inner thigh
- Pain when moving the hip, mostly when spreading the legs apart or pushing the legs together

## Increased Risk

- Sports that require repeated kicking or quick change of direction (soccer, martial arts)
- Sports that require bursts of speed or sudden jumping (hockey, gymnastics, track & field)
- Poor physical conditioning (strength and flexibility) or muscle imbalance
- Poor warm up and stretching before practice or competition
- Previous thigh, knee, or pelvis injury

## Treatment

- Medicine
  - Anti-inflammatory medicines, such as ibuprofen (Motrin<sup>®</sup> or Advil<sup>®</sup>) or naproxen (Aleve<sup>®</sup>) may be recommended. Take these as directed by your doctor.
  - Other minor pain relievers, such as acetaminophen (Tylenol<sup>®</sup>) may be taken.
- Use of cold and heat
  - Cold should be applied for 10 to 15 minutes every 2 to 3 hours and after any activity that makes symptoms worse. Use ice packs or an ice massage and raise the foot and ankle at or above heart level to reduce swelling.
  - Heat may be used before doing stretching and strengthening activities prescribed by your doctor, health care provider, or athletic trainer. Use a heat pack or a warm soak. Apply for 10 to 15 minutes.
- Orthopedic aids
  - Crutches may be used at first to help with limping and pain.
  - An elastic bandage, or compression sleeve, may help improve swelling and pain.
- Exercises
  - Exercises to improve strength and flexibility are helpful. These can be done at home, but often a referral to a physical therapist or athletic trainer may be advised by your doctor or health care provider.
- Surgery
  - In rare cases surgery may be needed for severe, complete tears.

## How to Prevent

- Do proper warm up and stretching before practice or competition.
- Complete rehab before returning to practice or competition.
- Maintain proper conditioning, hip, pelvis, and trunk strength, flexibility, 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, even with treatment.
- New, unexplained symptoms develop.

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

