

Sports Medicine: Avulsion Fractures of the Ischial Tuberosity of the Pelvis

Avulsion fractures occur when a small piece of bone is separated from the main bone due to the pull of the muscle and tendon attached to it. This typically occurs in a growing bone which is weaker than a developed bone. The ischial tuberosity is the bone in the bottom (buttocks) where the hamstring tendons attach to the pelvis. Because the pelvic growth plate closes in the late teens or early 20's, this problem usually happens in teenagers.

Signs and symptoms

- Tender area over the bone in the buttocks
- Pop sound heard at the time of injury
- Pain with walking (limp), sitting, running, and kicking
- Pain with stretching the hamstring, lifting the hip up, or straightening the knee
- Bruising in the back of the thigh
- Weakness when bending the knee or lifting the hip up

Increased risk

- Teenagers
- Sports that require quick starts, jumping, kicking, or contact (sprinting, football, racquetball, badminton, basketball)
- Poor physical conditioning, strength, and flexibility
- Previous thigh, knee, or pelvis injury
- Poor warm-up before practice or play

Treatment

- Medicine
 - Anti-inflammatory medicines, such as ibuprofen (Motrin® or Advil®) or naproxen (Aleve®) may be recommended. Take these as directed by your health care provider.
 - Other minor pain relievers like acetaminophen (Tylenol®) may be taken.

- 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 ordered by your health care provider or athletic trainer. Use a heat pack or warm soak. Apply for 10 to 15 minutes.
- Rest
 - Resting from physical activity is important to allow the injury to heal.
- Orthopedic aids
 - Crutches may be helpful to reduce pain with limping.
- Rehab and exercises
 - Exercises to improve flexibility and strength of the leg and pelvis muscles are important. Sometimes these can be done at home, but often a referral to a physical therapist or athletic trainer may be recommended by your health care provider.
- Surgery
 - In rare cases, surgery may be needed for large fractures or injuries that do not heal with other treatment.

How to prevent

- Do correct warm-up and stretching before practice or competition.
- Maintain proper conditioning and cardiovascular fitness, hip and knee muscle strength, endurance, and joint flexibility.

When to call the doctor

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

- Symptoms get worse in 4 weeks, even with treatment.
- Signs of infection develop like fever of 100.4° Fahrenheit (F) or 38° Celsius (C) or higher.
- New, unexplained symptoms develop.

To schedule an appointment with **Sports Medicine**, visit **NationwideChildrens.org/SportsMedicineScheduling** or scan this code with your camera phone.

