



Sports Medicine: Growth Plate Injuries

The physis (FI-sis), or growth plate, is an area of growing bone near the ends of long bones. Bones grow longer from the tissue produced by the physis and then harden. Most growth plates fuse or disappear in females ages 14 to 16 and males 16 to 18. Sometimes they can close as late as the age of 25.

The growth plate is the weak link in the growing athlete and is more likely to be injured than the surrounding bone, muscle or ligaments.

Signs and symptoms

- pain, tenderness, and swelling at the site of injury
- not able to use the injured area in activities
- weakness or not able to put weight on the injured area
- a deformity may be present if the growth plate is broken

Increased risk

- contact sports (like football, ice hockey, soccer and volleyball)
- falls from heights
- poor physical conditioning (strength, flexibility and balance)
- endurance sports (like running, jogging, biking and dancing)
- poor balance
- recent growth spurt

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, such as acetaminophen (Tylenol®), may be used.

- Use cold
 - 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.
- Orthopedic aids
 - A splint, cast, or brace may be used to allow bones to heal without moving
- Rest
 - Will help decrease pain and allow the growth plate to heal
- Rehabilitation
 - Rehab may be needed to regain motion and build strength back in the muscles around the joint
- Surgery
 - May be necessary for more serious fractures

How to prevent

- do correct warm up and stretching before practice or competition
- use proper equipment
- exercise moderately, avoid rapid or extreme change in training or activity
- maintain suitable conditioning, strength, flexibility, endurance and cardiovascular fitness
- use proper technique during activity

When to call the health care provider

Call your health care provider or the **Sports Medicine team** at **614-355-6000** for:

- severe and ongoing pain
- blue or gray skin below the fracture site, especially under the nails
- numbness or loss of feeling below the fracture site

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

