



Points To Remember About Growth Plate Injuries

- Injuries to the growth plate happen when a break or fracture occurs near or at the end of a long bone.
- Growth plate injuries happen to children and teens.
- Most growth plate injuries occur after a sudden accident, such as falling or having a hard hit to the limb.
- Doctor's test for growth plate injuries by asking about the injury, examining your child, and ordering x-rays.
- Treatment may include using a cast or splint, setting the bones back in place, exercises, and long-term follow up.
- Most growth plate injuries get better and do not cause any lasting problems for your child or teen.

What are growth plate injuries?

Growth plates are areas of growing tissues that cause the long bones in children and teens to grow. Injuries to the growth plate happen when a break or fracture develops near or at the end of a long bone. The growth plate is the weakest part of the growing skeleton.

Growth plate injuries usually happen at the:

- Bones of the legs.
- Wrist.
- Ankle.
- Foot.
- Hip bone.

When you finish growing, the growth plates close and are replaced by solid bone.

Who gets growth plate injuries?

Growth plate injuries happen to children and teens. This injury happens twice as often in boys

as in girls.

What are the symptoms of growth plate injuries?

Your child or teen could have symptoms of a growth plate injury when your child:

- Stops playing because of pain after a sudden injury.
- Limits the amount of time playing because of an old injury.
- Has changes in the way their arm or leg bends.
- Cannot move an arm or leg because of pain.
- Has pain that continues after an overuse injury.

What causes growth plate injuries?

Growth plate injuries happen for many reasons. Most occur after a sudden accident, such as falling or having a hard hit to the limb. The most common cause of growth plate injuries includes:

- Falling down.
- [Competitive sports](#) (like football).
- Recreational activities.

Sometimes growth plate injuries happen when your child overuses a certain part of the body.

For example:

- Gymnasts who practice for hours on the uneven bars.
- Long-distance runners.
- Baseball pitchers perfecting their curve balls.

Other reasons for growth plate injuries are:

- Child abuse.
- Injury from extreme cold (for example, frostbite).
- Radiation used to treat certain cancers.
- Medications for example, steroids.
- Neurological disorders that cause people to lose their balance and fall.
- Some inherited disorders.
- Bone infections.
- Metabolic disease, such as kidney failure and hormone disorders.

Is there a test for growth plate injuries?

Doctor's test for growth plate injuries by:

- Asking about the injury.
- Examining your child.
- Ordering x-rays.

Sometimes the fracture in the growth plate may be hard to see. Your doctor may order other tests to look closely at area of the injury or pain, such as:

- CT scan, a special x-ray that helps to see the growth plate.
- MRI, a test that uses magnetic energy to look inside the body.
- Ultrasound, a test that uses sound waves to look inside the body.

How are growth plate injuries treated?

Treatment of a growth plate injury depends on the type of fracture and may include:

- Using a cast or splint to stop movement of the growth plate.
- Setting the bones back in place with manipulation or surgery.
- Exercises after the injury heals.
- Long-term follow-up, which could include more x-rays.

Who treats growth plate injuries?

An orthopaedic surgeon, a doctor who treats bone and joint problems, treats most growth plate injuries. Sometimes you or your child will see a pediatric orthopaedic surgeon, a doctor who treats bone and joint problems in children.

Living with growth plate injuries

Most growth plate injuries get better and do not cause any lasting problems for your child or teen. Occasionally, the bone stops growing and ends up shorter than the other limb. For example, a fractured leg might end up shorter than the other leg. Or, if only part of the growth plate is injured, the limb can become crooked when only part of the bone keeps growing.

Lasting problems are most common with injuries to the knee.

For more info

U.S. Food and Drug Administration

Toll free: 888-INFO-FDA (888-463-6332)

Website: <https://www.fda.gov>

Drugs@FDA at <https://www.accessdata.fda.gov/scripts/cder/daf>. Drugs@FDA is a searchable catalog of FDA-approved drug products.

Centers for Disease Control and Prevention, National Center for Health Statistics

Website: <https://www.cdc.gov/nchs>

American Academy of Orthopaedic Surgeons

Website: <https://www.aaos.org>

American Academy of Pediatrics

Website: <https://www.aap.org>

American Orthopaedic Society for Sports Medicine

Website: <https://www.sportsmed.org>

If you need more information about available resources in your language or other languages, please visit our webpages below or contact the NIAMS Information Clearinghouse at NIAMSInfo@mail.nih.gov.

- [Asian Language Health Information](#)
- [Spanish Language Health Information](#)