# Boston Children's Hospital Orthopedics & Sports Medicine

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# **Metatarsal Fracture**

#### What is a metatarsal fracture?

The metatarsals are the long bones of the foot. A metatarsal fracture is a crack or break in one of the long bones of the foot. There are five metatarsals in the foot, one for each toe.

Any metatarsal can be fractured, but there are a few different types of 5<sup>th</sup> metatarsal fractures (the metatarsal for the pinky toe).

#### **Avulsion fracture**

The peroneal tendon, one of the ankle tendons, pulls a small piece of bone off the  $5^{\text{th}}$  metatarsal. This is a common injury with ankle sprains.

#### Jones fracture

This is a fracture through the upper shaft of the 5<sup>th</sup> metatarsal. This injury is often associated with sports. The fracture may require surgery because it can be very slow to heal on its own.

#### **Pseudo-Jones fracture**

This is also a fracture of the upper part of the 5<sup>th</sup> metatarsal, but it is in a different spot than a true Jones fracture. This fracture usually does not require surgery.

#### What causes a metatarsal fracture?

These injuries are usually caused by a fall or direct blow to the foot. Too much force is put on the bone(s) and this causes a fracture. Stress fractures can also happen due to overuse over many weeks. Common causes of this injury include:

- · getting stepped on
- stepping awkwardly and twisting the foot or rolling the ankle
- training in worn out shoes or doing lots of high impact activity on hard surfaces, such as running long distances on pavement

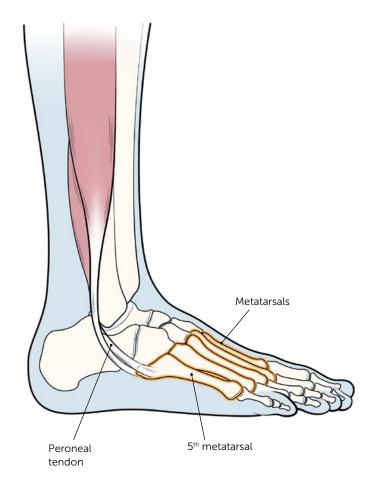
# How is this injury treated?

We start by determining the location and shape of the fracture, the fracture pattern, which helps us determine the best way to treat the injury. Sometimes the two parts of the fractured bone have moved too far apart from each other or have rotated. This is called a displaced fracture, and surgery may be needed to put the bones in the proper position to heal.

In most cases, your child will have a cast or an Aircast® boot to protect their foot once we know the bones are in the best position to heal. If the bone has just a small crack, your child may be able to walk in the cast or boot.

For fractures like a Jones fracture, or if more than one metatarsal is fractured, we will likely give your child crutches. They should not walk or bear weight on that foot.

Most metatarsal fractures heal enough to be out of a cast or boot in three to six weeks, but this will depend on the fracture pattern and your child's age. Metatarsal fractures in toddlers tend to be less severe and heal quickly. Adolescents and teenagers may need to be immobilized a little longer to ensure the bone is completely healed.



# Will my child be in pain?

Soreness is usually at its worst in the first few days through the first week. Pain from soreness can be treated with acetaminophen (Tylenol®) or ibuprofen (Advil®) as needed. Always talk with your provider about allergies your child may have before giving overthe-counter medication.

If your child has surgery, we may prescribe a small amount of prescription pain medicine if appropriate.

### How should I care for my child's foot?

Foot fractures often swell, so it is very important to keep the foot raised (toes above the nose). Elevating the foot like this helps keep swelling from drifting down and getting stuck in the toes. A good way to elevate the foot while sleeping is to put extra pillows or blankets under the mattress at the foot of the bed.

# Can we ice the injured foot?

Yes. If your child is in a boot, it can be opened or taken off to apply ice (15 minutes on, 15 minutes off). This will also help with swelling.

A bag of frozen peas or a plastic bag with ice works well. Be careful with chemical ice packs, as they can get very cold very quickly and cause frostbite. Also, the chemicals inside the packs can be harmful if the pack breaks.

# Can my child be active?

Your child should not participate in activities where there is a risk of falling or getting a direct hit to the fractured bone(s). This includes activities like:

- playing on playground structures (i.e. jungle gyms or swing sets)
- · contact sports like basketball, hockey or soccer
- · horseback riding, ice skating or skiing

If your provider recommends that your child be non-weight bearing, they should not walk on the foot until cleared to do so.

# How long will my child be out of sports?

We will assess your child and make recommendations based on how the injury looks and the potential injury risks of the sport your child plays.

Your child probably will not play contact sports or do playground activities for six to 12 weeks.

# Will my child need physical therapy or treatments after bracing/casting?

Your child probably will not need physical therapy and should get back to full strength and movement within one to two weeks after the cast/brace comes off.

For patients looking to return to sports, and for adolescents and teenagers that had to be non-weight bearing for a few weeks, we do commonly prescribe physical therapy to help strengthen the foot and ankle, which will help with overall recovery and return to activity.

# When should I follow up?

Your child probably will have x-rays at the first visit and again in three to four weeks.

#### When should I contact the office?

Call us if your child has:

- · pain that increases quickly and without warning
- swelling with no new fall or injury
- new redness and warmth over the foot with new fevers, chills or nausea (feeling sick)
- pain that does not get better after taking acetaminophen (Tylenol®) or ibuprofen (Advil®)
- numbness and inability to wiggle the toes

These could be signs of a different problem, and we may direct you to take your child to our clinic or the emergency department.

Notes	

