Boston Children's Hospital Orthopedics & Sports Medicine

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Metacarpal Fracture

What is a metacarpal fracture?

The metacarpals are the long bones of the hand. Each hand has five metacarpals, one for the thumb and each finger. A metacarpal fracture is a crack or break to one of these bones.

What causes a metacarpal fracture?

These fractures are usually caused by a fall or direct blow to the hand. Too much force is put on the bone(s), causing a fracture. This often occurs with injuries like being hit on the hand with a lacrosse or field hockey stick, falling directly onto the hand or knuckle, or punching a wall.

How is this injury treated?

We start by determining the location and shape of the fracture, the fracture pattern, which helps us decide on the best course of treatment

Sometimes the two parts of the fractured bone have moved too far apart from each other and have rotated. This is called a displaced fracture, and it may require a reduction in the emergency department or surgery to put the bones in the correct position to heal.

In most cases, your child will have a cast to keep the bones in place once we know they are in the best position. If the bone has just a small crack, we may be able to use a splint instead of a cast.

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.

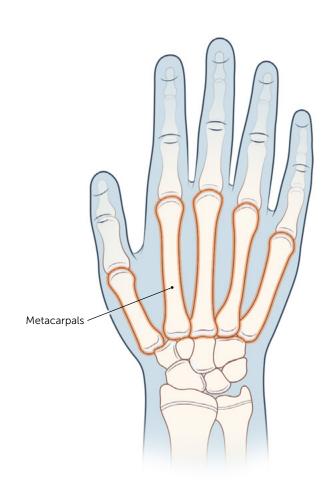
If your child has surgery, we may prescribe a small amount of prescription pain medicine.

Hand fractures can often swell, so it is very important to keep the arm raised (hand above heart). Elevating the hand like this helps keep swelling from drifting down and getting stuck in the fingers. A good way to keep the arm raised is to put it on a pillow with the fingers pointed up.

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:

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



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, depending on the severity of the fracture.

Will my child need physical therapy or treatments after 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 comes off.

When should I follow up?

Your child will likely have x-rays at the first visit and again in three to four weeks. Most metacarpal fractures heal enough to be out of a cast in three to four weeks. If this is a repeat fracture it, may take more time to heal and may need to be casted longer.

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 hand 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 fingers

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	

Produced by Boston Children's Hospital Orthopedics and Sports Medicine Center. For more information or to request an appointment visit BostonChildrens.org/OrthoUrgentCare.

