Both-Bone Forearm Fracture and Monteggia Fracture



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What is a fracture of the forearm?

The radius and ulna are the two long bones of the forearm that extend from the wrist to the elbow. When they both break, it is called a both-bone forearm fracture.

This happens when a blow or fall on the arm puts so much stress on these bones that they break. It often occurs as a result of a FOOSH (fall onto an out-stretched hand). FOOSH injuries can happen from falls off a scooter, skates or monkey bars, as well as direct hits in sports like football, hockey or lacrosse.

A Monteggia fracture is a special type of forearm fracture in which the ulna bone is fractured and causes the radius to dislocate at the elbow.

How is this injury treated?

Forearm fractures can be, or become, unstable fractures. This means the bones either have moved, or might continue to move, even when the arm is in a cast. This is especially true for Monteggia fractures. The first step is to determine if the fracture is stable and if the bones are in the right place to heal.

If the bones have moved too far out of place, the fracture will likely need to be set back into a good position. This is called a reduction and is usually done right away in the emergency department. If the fracture is too unstable, surgery may be needed to stabilize the fractured bone and put it in the right position to heal.

Both-bone forearm fractures are treated with casting once the bones have been set in a good position. Your child will start with a long arm cast that comes up above the elbow. We usually split the first cast to leave room for swelling.

For a split cast, we tape both sides of the cast with cloth medical tape. In case the tape peels off, you can buy more at a pharmacy. You may also use cloth athletic tape or duct tape, but avoid these if your child has a latex allergy. The cast is held tightly in place from the inside, so it should not fall apart if the tape peels. We usually do not use waterproof casts for the first cast because of swelling.

Will my child be in pain?

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

We may prescribe a small amount of prescription pain medicine after a reduction or surgery if we feel it is needed. **Swelling in the fingers is common.** Help your child keep their arm and hand lifted or resting above their heart to help reduce swelling.



Can my child be active?

While the cast provides some protection, a blow to the arm could move the bones out of place. Your child should not do any activities where there is a risk of falling or taking a direct hit to the arm. 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

How long will my child be out of sports?

This decision is based on how the fracture looks and how quickly it heals, as well as the potential injury risks of the sport your child plays. This kind of injury usually keeps patients out of contact sports for about eight to 12 weeks.

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

Most patients do not need physical therapy. Children commonly regain full strength and movement in their arms within one to two weeks after bracing and casting are complete.

When should I follow up?

Your child will need x-rays once a week for the first two weeks. Even though your child is wearing a cast, the muscles in the arm still provide tension on the bone. This tension can make the bone drift out of the correct position. We watch closely for this so we can treat it early if it does happen.

If the first cast was split and everything looks good at the oneweek appointment, we may overwrap the cast. To do this, we will close the existing cast with a new layer of casting to keep the cast from getting too loose as swelling goes down.

Most children with a both-bone forearm fracture wear a cast or splint for eight weeks in total. This includes:

- four weeks in a long arm cast, with a follow-up appointment at the end of this period
- two weeks in a short arm cast, with a follow-up appointment at the end of this period
- two weeks in a wrist splint with follow up as needed if the bones have healed

We will probably take additional x-rays of your child's arm at the four- and six-week follow-up appointments.

Notes

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 around the wrist 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.

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

