What is a fracture of the medial epicondyle of the distal humerus?

The humerus is the long bone of the upper arm. The medial epicondyle is the round portion at the end of the bone on the inside of the elbow. It's an important part of the arm, as it is the point of attachment for the muscles that flex the elbow and rotate the arm.

A fracture of the medial epicondyle occurs most often as the result of what we call 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. They can also occur due to a direct blow to the elbow.

How is this fracture treated?

There are several treatment options depending on the severity of the fracture. If your child has a non-displaced fracture (in other words, the bone fragments did not move or separate), they will need a long arm cast.

If your child has a displaced or separated fracture, we will discuss the best treatment options with you. Mild to moderately displaced fractures can heal well with casting. If a bone fragment was trapped inside the elbow joint when it fractured, your child will need surgery to heal properly and to maintain their elbow’s full range of motion. If your child plays certain sports like baseball, gymnastics or volleyball, or if the fracture is very displaced, we may talk with you about the possibility of surgical treatment.

In order to leave room for swelling, your child will probably start with a split cast on their arm. We tape the sides of the cast with cloth medical tape. In case the tape starts to peel off, you can buy more medical tape 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 does start to peel. We do not usually use waterproof casts for first casts due to swelling.

Can my child be active?

While the cast provides some protection, a blow to the arm could move the bone out of place. Your child should not do any activities that put them at 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

Will my child be in pain?

Soreness is usually at its worst in the first few days through the first week after the injury. 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 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 with swelling.

How long will my child be out of sports?

We assess each patient and make recommendations based on how the injury is healing and the possible risks of the sport your child plays. Your child probably will not play contact sports for about eight to 12 weeks.

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

Most patients do not need physical therapy. Children commonly get back full strength and movement in their arms within one to two weeks after bracing and casting are completed. We may prescribe physical therapy if we think the elbow is really stiff after casting or the muscles need extra attention to strengthen prior to returning to activity.
When should I follow up?

Your child will need x-rays in one week. Even though your child is wearing a cast, the muscles in their arm still provide tension on the bone. This tension can cause the bone to 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 one-week appointment, we will overwrap that cast. This means we apply a new layer of casting to close the cast and keep it from getting too loose as swelling goes down.

The most common timeline is to be in a long arm cast for two to four weeks. After that time, we will see your child to remove the cast and perform a new x-ray. After the cast is removed, your child will have a brace for the elbow. It is important that your child begin moving their arm to keep it from getting stiff and to regain full, normal movement.

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 elbow 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.