Supracondylar Humerus Fracture

What is a supracondylar humerus fracture?
The humerus is the long bone of the upper arm. A supracondylar fracture is a break to the lower part of this bone, close to the elbow. It is one of the most common fractures we see, especially in younger children.

This injury occurs most often with 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.

How is this injury treated?
Treatment is based on the type of fracture your child has. We classify this injury into three types: type 1 (non-displaced), type 2 (partially displaced) and type 3 (completely displaced).

With type 1 injuries that are non-displaced, meaning the bone cracked but did not move, we put the patient into a long arm cast for protection as the arm heals. Because the bone moves or displaces in type 2 and 3 injuries, surgery is typically required to properly align the bones. We place temporary metal pins through the skin to hold them in place while they heal.

We often bivalve or split the first cast, regardless of the fracture type, to allow room for swelling. We tape the sides of the cast with cloth medical tape, which you can buy at a pharmacy and replace if it starts to peel off. You may also use cloth athletic tape or duct tape, but avoid these if your child has a latex allergy. The cast is secured from the inside at the hand and at the upper arm cuff, so if the tape starts to peel, the cast should not fall apart. We usually do not use waterproof materials for first casts due to swelling.

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 over-the-counter medication.

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

Swelling in the fingers is common, so help your child keep their arm and hand elevated to reduce swelling.

Can my child be active?
The cast provides some protection, but a blow to the arm could move the fracture out of place or make the injury unstable.

Your child should not participate in activities where there is a risk of falling or getting 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?
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 be able to play contact sports or do playground activities for six to 12 weeks. For a few weeks after the cast is removed, we will encourage your child to use the arm to restore full strength and motion. We will not recommend a return to sports or playground activities until the bone is strong enough for your child to participate safely.

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 a few weeks after the cast comes off.

When should I follow up?
In most cases, we see patients after one week for an x-ray. Although your child is in a cast and cannot move, the muscles in the arm still put tension on the bone. Even if the fracture appears as non-displaced, this tension can cause the bone to drift out of alignment. We monitor for this so we can treat it early if it does happen.
How long will my child need a cast?
Recovery time for this injury typically includes three to four weeks in a long arm cast, after which we will remove the cast and take a new x-ray. If your child had surgery, we will remove the pins in the office at your three to four week clinic visit. After three to four weeks in a cast, your child’s arm will probably no longer need to be immobilized. We typically will not brace the elbow. Rather, your child should begin moving their arm again to restore full, normal function.

If the first cast was bivalved and everything looks good at the one week appointment, we overwrap the cast. This means we apply a new layer of casting material to close off the cast, which keeps it from becoming too loose as swelling comes down. If your child had surgery, we may replace the cast with a new cast if we feel it has gotten too loose.

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 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.