A supracondylar humerus fracture is one of the most common type of elbow fracture (broken bone) sustained by children. This type of fracture usually occurs by falling onto an outstretched arm or directly onto the elbow. It typically occurs in children between the ages of two and eight years old.
Occasionally, the broken bone will maintain its alignment. This is referred to as an undisplaced fracture. An undisplaced fracture is treated in a cast for three to four weeks. On the other hand, if there is displacement or angulation of the bone, realignment will be required in order to prevent a permanent deformity of the elbow. A minor surgery will be performed in the Operating Room under anesthesia.

The broken bone can be adequately realigned by manipulating the arm without requiring an incision in over 95% of cases. This is referred to as a closed reduction. On rare occasions, an open reduction is required which involves making a small incision in the skin in order to place the bones back together. Once the bones have been realigned, 2-3 small straight pins are inserted through the skin and into the bone. The pins will help to hold the bones in place during the healing process. The pins will protrude out through the skin but are covered by a bandage and then the cast.

Children are occasionally hospitalized for one night following the closed/open reduction of a SCH fracture.
CARE AT HOME

Circulation
Verify the blood flow circulation to the casted arm by comparing the following to the other arm:
• Color – your child’s fingers should remain normal skin color
• Warmth – your child’s fingers should feel warm to the touch
• Sensation – your child should be able to feel you touching his fingers
• Movement – your child should be able to move his fingers

Verify the circulation every 4 hours for the first 24 hours, then twice daily for the remainder of the time in the cast.

Swelling
Elevate your child’s arm as much as possible in order to help decrease swelling and pain. Remember to keep the sling on until the pins have been removed (even if your child is feeling better). The sling helps keep the fracture in the best position for healing, protects the pins, and reduces pain.

Encourage your child to move his fingers regularly in order to prevent swelling and joint stiffness.

Pain
Children typically experience pain and discomfort following the surgery. You will be provided with a prescription for pain medication. Give the medication as prescribed and instructed by the doctor and nurse.

It is strongly recommended that you give the medication on a regular basis for the first 24-48 hours. This will help ease your child’s pain and/or discomfort.

Bathing
Give your child a sponge bath. Use a damp (not wet) cloth, and then dry the skin surrounding the cast area well. Do not use lotion or powder around the edges of the cast, they will soften and irritate the skin.

Cast Care
• Keep the cast clean and dry
• Never immerse the cast in water
• Never put anything into the cast
• Do not use lotion or powder around the edges of the cast. This will soften and irritate the skin
ARM SLING OR IMMOBILIZER

Your child’s casted arm will be supported using a sling or another type of immobilizer. The doctor will decide which form of immobilization is ideal for optimal healing. It is essential to maintain the arm in the immobilized position. The sling should be left on as applied by the doctor or cast technician and should not be altered in any way. If a regular sling is used, support the arm and limit shoulder movement as much as possible when dressing your child.
Occasionally, the doctor will require that your child be clinically examined at the hospital one week post injury.

The typical follow-up is an appointment within 3-4 weeks post-surgery to:

- Remove the cast
- Have an x-ray
- Be examined by the doctor (the pins will be removed if healing is adequate)
- Your child may be seen by a Physiotherapist who will provide him with an exercise program (when indicated)

The doctor may ask that you bring your child in for another follow-up appointment 3-4 weeks after the cast and pins have been removed in order to verify the movement of the elbow.

**Pin Removal**

Pin removal may cause slight discomfort. It is common for toddlers and young children to experience anticipatory fear. In order to help reduce pain/discomfort, give your child their prescribed pain medication prior to the appointment. We suggest bringing a favorite book or toy to the appointment in order to help distract your child while the cast and pins are removed. Once the pins are removed the pin site is covered with a bandage.

**What to Expect Once the Cast and Pins Have Been Removed:**

It is common for children to experience elbow stiffness once the pins and cast have been removed. The stiffness is related to the immobility due to casting and should gradually resolve itself as your child begins using his arm normally again. Some children regain full range of motion within 1-2 days, whereas it may take others 2-4 weeks for the stiffness to resolve entirely.

Unlike adults, children regain range of motion spontaneously. Typically, they do not require intensive physiotherapy treatments. When indicated, the Physiotherapist will provide you with an exercise program to help your child regain full function of his arm. The goal is to have a completely healed elbow and full range of motion by 6 weeks post injury.

**Skin Care Post Cast Removal**

The affected area may be dry, scaly and odoruous. For the next few days, gently wash the affected area with soap and water. Do not rub it. The dry skin will eventually fall off. Apply non-scented lotion to the affected area after washing. Do not pick or pull at loose skin which can lead to bleeding and infection.
I Should Call my Doctor if...
- Persistent numbness or tingling despite change of position
- Redness or blueness of fingers
- Cold fingers
- Swelling which increases or does not resolve

- Decreased ability to move fingers
- Pain not relieved with medication
- Fever persisting for more than 1 day
- Foul odor or any drainage from the cast
- Severe and/or persistent itching
- Softened, cracked or broken cast

RETURN TO SPORTS AND ACTIVITIES

Once the pins and cast have been removed, your child can start using his arm and moving the elbow normally. It is generally advised that toddlers and children avoid activities that involve a high likelihood of falling for an additional 3-4 weeks post removal. These activities include but are not limited to monkey bars and playgrounds. Contact sports and physical education should also be restricted for approximately one month post cast/pin removal.

IMPORTANT CONTACT INFORMATION

Surgical/Trauma Unit
Available at all times
514-412-4400, extension 22433

Trauma
Monday to Friday – 8 am to 4 pm
514-412-4400, extension 23310

Pediatric Orthopedic Clinic
Monday to Friday – 8 am to 4 pm
514-412-4265

Physiotherapy Department
Monday to Friday – 8:30 am to 4 pm
514-412-4407