

Plain Language Summary

Pediatric Supracondylar Humerus Fractures

Background

This plain language summary provides an overview of the management of pediatric supracondylar humerus (SCH) fractures. These are very common elbow injuries in children.

What is a supracondylar humerus fracture?

A pediatric SCH fracture is the most common elbow injury in children. The distal humerus bone breaks with a traumatic event, usually a fall on an out-stretched hand.

What should you do?

You may suspect a SCH fracture if:

- You heard a distinct 'snap' or break in the elbow
- There is pain and/or swelling of the elbow joint
- You have difficulty moving the arm/elbow after the injury
- There is loss of elbow motion
- Your hand is cool and pale
- You have numbness/tingling in your fingers
- You cannot easily move all of your fingers

If you think that you have sustained a break to your elbow, seek medical attention. You should avoid moving the arm or performing any lifting activities until you are evaluated.

How is a pediatric SCH fracture diagnosed?

Radiographs (plain x-rays) are the best method to diagnose these fractures.

What treatment options are available for pediatric SCH fractures?

Treatment options depend on many factors, including the amount of swelling, amount of fracture displacement, and whether your nerves and blood vessels are working properly. Your doctor may elect to treat you urgently if your hand is not well perfused or if you have sustained an injury to a nerve.

If the fracture is nondisplaced, there is moderate strength of recommendation to immobilize the limb only (either with a cast or a splint). If there is displacement (i.e. the fracture has 'moved or shifted'), there is moderate strength of recommendation to proceed with a closed reduction and pin fixation. This involves a surgery to put the bones back in place and hold them with thin pins that eventually are removed. The surgeon will place 2 or 3 lateral pins (weak strength of recommendation).

If the hand is not well perfused (i.e. it's white and cool instead of pink and warm), open exploration of the neurovascular structures is recommended. This means that an incision will be made so that the surgeon can look inside to ensure no damage or kinking of the important structures.