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SUPRACONDYLAR ELBOW FRACTURE (DISPLACED) INFORMATION SHEET

FRACTURE DESCRIPTION

- Your child has a SUPRACONDYLAR FRACTURE of the HUMERUS, which is a fracture just above the elbow (see figure 1)
- These are one of the most common fractures of childhood.
- These fractures can be
    - Undisplaced (bones are in perfect alignment) or minimally displaced (the bones are in a good alignment) (see **Figure 1 and 2**) OR
    - Displaced (the bones are out of alignment) (see **Figure 3**)
- Your child's fracture is DISPLACED (see **Figure 3**)
- Because the bones are in good alignment, and this is a very stable fracture, there is no need for an operation to align the bones or stabilise them.

Anatomy and xray examples

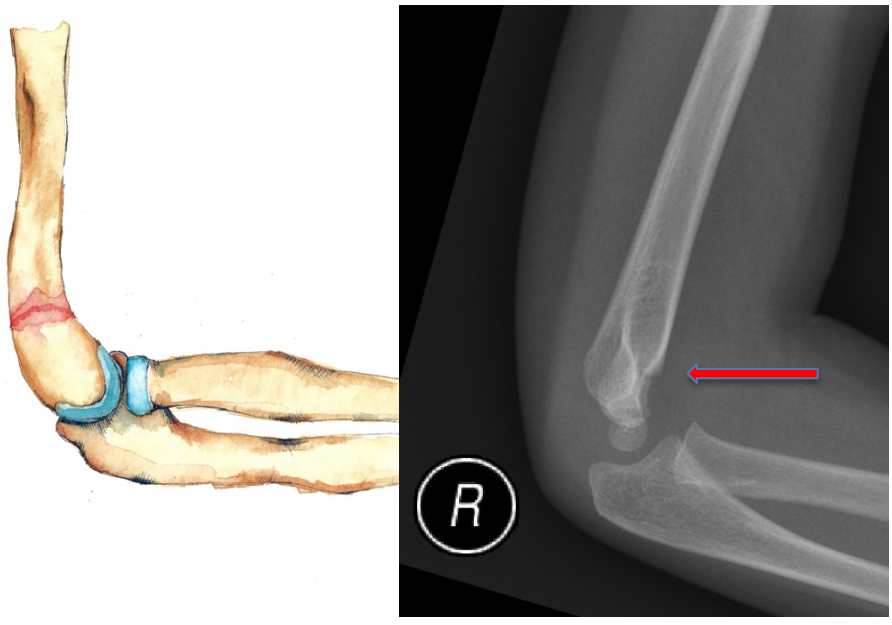
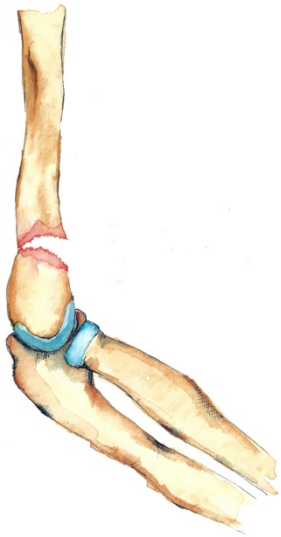


Figure 1. Schematic diagram and xray of an undisplaced supracondylar elbow fracture



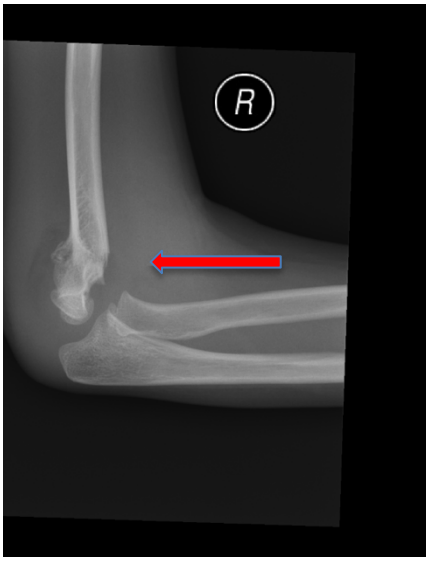


Figure 2. Schematic diagram and xray of a minimally displaced supracondylar elbow fracture

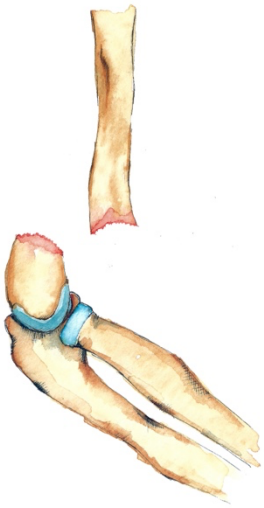


Figure 3. Schematic diagram and xray of a minimally displaced supracondylar elbow fracture

MANAGEMENT

- After the operation, your child will be placed in a backslab (a partial cast).
- Your child will remain in hospital overnight to monitor for swelling, pain, and circulation of the fingers
- Your child should be able to go home the next day

WHEN YOU GO HOME

- The arm should be placed under loose fitting clothing (not through the sleeve of the arm).
- Fractures can be painful and swell, especially in the first few days.
- Simple pain medication such as paracetamol and ibuprofen are usually effective
    - Give regularly for the first few days, following the directions
    - Give a dose before bedtime to allow a good sleep
- When your child is not moving, rest the elbow and hand above the level of the heart (centre of the chest) to minimise swelling (see **Cast Care for the Arm Information Sheet** and **Wires and Wound Care for Children Information Sheet**).

- Encourage frequent finger movement
- Check your child has normal finger movement and feeling, and that the fingers are pink, during the first few days.

FOLLOW UP

- Your child will sometimes have an xray 5-7 days after the operation, to ensure the fracture alignment is still satisfactory
- You will see Dr Graff or her team 3 weeks after this (ie 4 weeks after surgery), to remove the backslab and wires (if present) (see **Wires and Wound Care For Children Information Sheet**)
- A sling will still be required for a further 1-2 weeks outside of the clothes, but gentle movement 3-4 times a day to help with elbow stiffness is recommended

WHAT TO EXPECT

- See **Cast Removal Information Sheet**
- When the backslab is removed, the elbow will be very stiff
    - This resolves slowly, often over a period of months.
    - It can take up to one year for full movement to return

WHAT CAN GO WRONG

- Artery damage
    - The artery near the fracture site can be stretched, torn or go into spasm.
    - If the hand is pink, the artery is usually in spasm, and will return to normal within a week
    - Occasionally input from the vascular surgeons is required
- Nerve damage
    - Nerves near the fracture site can be stretched or damaged; they can also be damaged by the operation
    - Usually this is a stretch of the nerve and this recovers with time, but can take months
    - Occasionally, if there are no signs of recovery after 2 to 3 months, referral to a plastic surgeon may be required and/or further surgery

- Swelling and compartment syndrome
    - Swelling can be severe with these fractures, and occasionally this can cause compartment syndrome
    - Compartment syndrome is an emergency, as the pressure in the arm is so great it stops the blood supply to this area
        - Pressure is relieved with an operation; this is very rare
    - Your child will be monitored overnight in the hospital after the surgery in case of this problem
- Infection
    - Any metal placed in the body is at risk of infection
    - This is rare in children, and antibiotics are not required unless there are signs of infection (see **Wires and Wound Care for Children Information Sheet**)
- Stiffness
- Malalignment of the fracture
    - Occasionally the fracture can heal in a position that causes the arm to look bent
    - Rarely, this will require surgery when the child is older

ALSO READ:

- **Cast Care for the Arm Information Sheet**
- **Cast Removal Information Sheet**
- **Wires and Wound Care for Children Information Sheet**