Royal Berkshire
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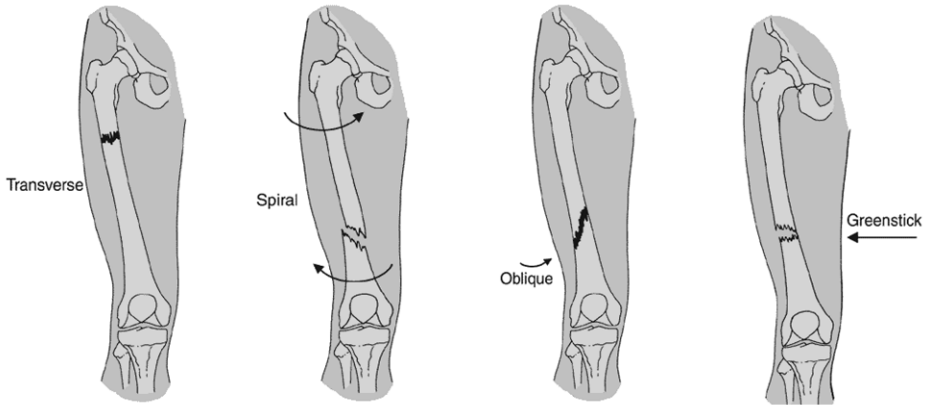



# My child has a broken bone

## A short guide for parents

The harder children play, the harder they fall. The fact is, broken bones – referred to by doctors as *fractures* - are commonplace in childhood.

Here are the answers to some frequently asked questions about fractures in children.

## How do doctors tell whether a bone is fractured?

A doctor can often tell if the bone is broken by the look of the injured area. There may be swelling or bruising, or the limb might look deformed. It may also hurt to move, touch, or press on it. X-rays are used to confirm a diagnosis, although some fractures can be difficult to detect on x-rays. Sometimes, in severe breaks, the broken bone may be poking through the skin.

## What is a fracture?

A fracture is a partial or complete break in the bone. When a fracture occurs, it is classified as either open or closed:

- Open fracture (also called compound fracture) - the bone exits and is visible through the skin; or a deep wound that exposes the bone through the skin.
- Closed fracture (also called simple fracture) - the bone is broken but the skin is intact.

Fractures have a variety of names. Below is a list of the common types that may occur in children:

- *Transverse* - the break is in a straight line across the bone.
- *Spiral* - the break spirals around the bone; common in a twisting injury.
- *Oblique* - diagonal break across the bone.

- *Greenstick* - incomplete fracture. The broken bone is not completely separated.
- *Comminuted* - the break is in three or more pieces.

## What is the treatment for a fracture?

Specific treatment for a fracture will be determined by the Orthopaedic Surgical Team based on:

- Your child's age, overall health, and medical history.
- Extent and type of the fracture.
- Your child's tolerance for specific procedures.

The goal of treatment is to control the pain, promote healing, prevent complications, and restore normal use of the fractured area.

Treatments include:

- Splintage or plaster cast – these immobilise, keep the bone straight, stop the broken bones from moving and protect the injured area so that the bone heals quickly and with little pain.

Full leg plaster

Below knee plaster

Above elbow plaster

- Traction - consists of pulleys, strings, weights and a metal frame attached over or on the bed. The purpose of traction is to stretch

the muscles and tendons around the broken bone to allow the bone ends to line up and heal properly.

- Surgery - there are two main forms of surgical procedures:
  - Closed reduction - this involves straightening the bones (manipulating) while your child is asleep (under anaesthetic) and then holding the straightened bones in plaster.
  - Open reduction - this is required to put broken bones that cannot be manipulated in a closed reduction back into place. These breaks usually need to be held with internal fixation. Metal pins or plates are inserted inside the bone to hold the realigned (corrected) position.

## What are the main risks following fracture?

Bruising and excessive swelling are a major concern following any fracture. It is important to monitor your child's limb for any signs of circulation or nerve problem. This will be carried out regularly by the nurses on the ward.

## Will my child have pain?

All fractures are painful. Regular pain relief will be given to reduce the level of pain as much as possible. In most cases, once the fracture has been held straight and still (in plaster or traction or after operation), the level of pain reduces. If your child is experiencing increasing pain inform the nurse looking after him/her.

## Why are some fractures treated in traction?

Certain larger long bone fractures such as the femur (thigh bone) are difficult to keep straight in a cast. Some of these fractures are treated in traction. In some cases, when the fracture begins to show early

healing, a cast can then be applied to hold the bone straight while healing is completed.

## How long does it usually take for a child's broken bone to heal?

Fractures heal at different rates depending upon the age of the child and the type of fracture. Young children may heal in as little as 3 weeks, although it may take 6-8+ weeks for older children.

## When can your child return to school?

This depends on a number of key factors, such as, where the fracture is, whether the school is happy for your child to come back in a plaster cast, how mobile your child is and are the school facilities able to safely accommodate your child's condition?

Children with arm fractures that needed a hospital stay can usually return to school once they have been seen in the outpatients department for the first check up (usually in one week).

Children with leg fractures may need to be off school longer and may need to have schoolwork sent home. Most schools, following discussion, do allow children with leg plasters who are using crutches back.

In all cases contact the head teacher. Schools are very accommodating whenever possible. Schools will normally provide homework assignments that your child can do whilst at home.

## Care of the cast

### Advice for the first 48 hours

- Do not rest the cast on a hard surface or sharp edge as it can leave a dent, causing pressure on the skin under the plaster.

- Do keep the cast elevated (raised) as much as possible to prevent swelling.
- Do not write or draw on the cast for the first 48 hours.
- Give a painkiller such as paracetamol or ibuprofen every 6 hours as needed. Check with your doctor or follow the instructions on the packaging for the dosage level.
- Check your child's fingers or toes of the arm or leg in the cast several times a day. They should feel warm, have a normal skin colour and he/she should be able to move them (*see picture*).

*Checking toes and fingers for movement and sensation*

## How do I care for the cast?

- Do not walk or put weight on the cast unless your doctor says to do so.
- Keep long arm casts in a sling at all times except when sleeping.
- Do not get the cast wet for any reason.
- Do not allow your child to place objects inside the cast.
- Do not use devices (such as knitting needles, coat hangers, etc.) to scratch underneath the cast.

- Your child can take a bath if the cast can be covered with a plastic bag and kept above the water.
- Keep the skin around the cast edges clean and dry.

## Return to the Children's Accident & Emergency Department or see your GP if:

- Your child's fingers or toes feel numb or cold, or look blue or pale.
- Your child complains of tingling, tightness, or pain in the injured arm or leg.
- There is pain under the cast in one spot, or pain anywhere for no apparent reason.
- It hurts your child to move the fingers or toes.
- Your child has a fever.
- You smell a bad odour coming from the cast.
- The skin around the cast edge is red or irritated.
- The cast gets wet or is soft or cracked.
- The pain medication does not make your child feel better.

## Use of crutches

- Walk with crutches as demonstrated by the physiotherapist. Do not put weight on the cast unless told to do so.
- Help your child go up and down stairs until you are comfortable that he/she can do it well on their own.
- Do not have your child rest his/her underarms on the crutches. Putting weight on the underarms can cause nerve damage.
- Always use crutches with rubber tips and wipe the tips dry if they get wet so they are not slippery.

## Helpful contacts and telephone numbers

Nina Doherty- Clinical Nurse Specialist
0118 3225111 bleep 232 or
0118 987 8746

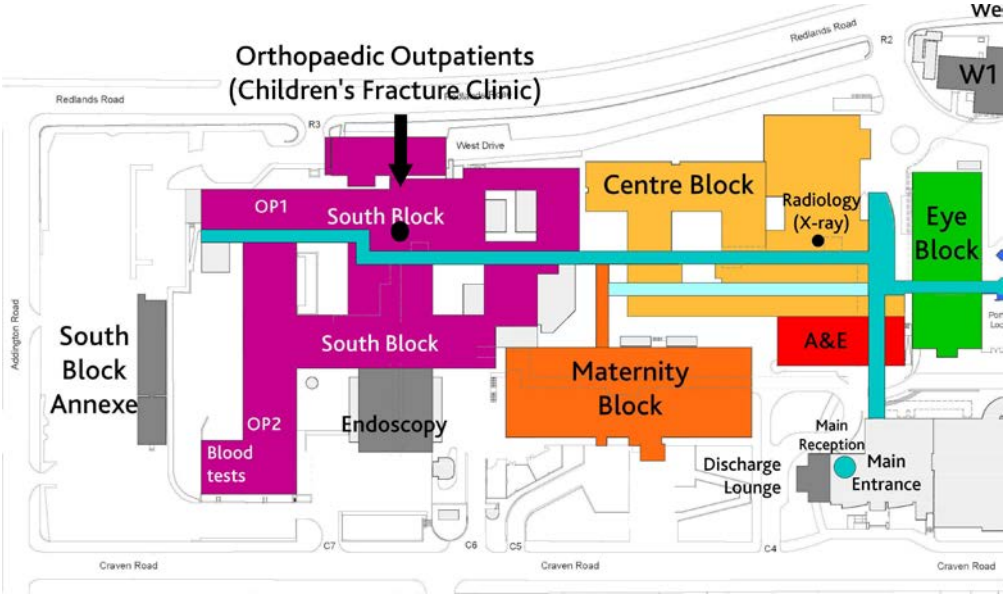
Plaster Room
0118 322 7040

Accident & Emergency Department
0118 322 8710

Appointments Desk
0118 322 7558

Lion Ward
0118 322 7519

Community Children's Nurses
0118 322 7532

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