Broken bones in the lower leg

Information for children, families and carers

We have given you this factsheet because your child has been referred to orthopaedics (the team that deals with bones, joints, muscles, and movement) for broken bones in their lower leg. It explains the treatment and follow-up care that your child will have. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

What are the signs and symptoms of broken bones in the lower leg?

If your child has broken bones (fractures) in the lower leg:

- they will complain of pain
- they may have difficulty moving
- their leg can appear swollen, shorter, twisted, or bent

Why does my child need to be treated?

If treatment is not done, your child's bones may heal in a bent position, which may affect the use of their leg.

How is it treated?

We will book your child an x-ray appointment to check the position and type of fracture. Occasionally, a CT scan (a test that takes detailed pictures of the inside of your body) might be needed. Depending on the results, the healthcare professional can decide on the best treatment. Your child's doctor may do any or a combination of the following:

- **Manipulation under anaesthetic** – We will give your child general anaesthetic (a medicine that makes them go to sleep) so they feel no pain when their doctor moves the broken bones to their original positions.
- **Flexible nails** – If manipulation under anaesthetic does not work, flexible nails may also be used

to stabilise the bones. The doctor will make two small cuts near the top and bottom of the broken bones where thin, flexible nails are inserted. The flexible nails will sit inside the bones and will be taken out once it is fully healed.

- **Metal plate and screws** – The doctor will make cuts near the break and move the bones to their original positions. They will then put pieces of metal into your child's bone and hold it in place with screws. When your child has fully healed, the metal plates and screws will be removed under a general anaesthetic.

We will apply a plaster cast to further help stabilise your child's bones. The cast may go from their toes to either above or below their knee. Sometimes a half plaster (back slab) is put on until the swelling at the fracture site has gone down. This may be changed to a full cast (plaster all the way around the leg) before they can go home.

We will teach you and your child how to care for their cast. For additional information on caring for their cast, please see the 'Caring for your cast factsheet' under 'Useful links.'

How long will my child have to stay in hospital?

Your child will normally stay in hospital between 24 and 48 hours. During that time, their limb function and feeling will be observed. They will also likely need to be seen by physiotherapy (treatment that can ease pain and improve movement) before they can go home.

When your child's limb function is normal, they will be able to go home.

After your child's treatment

To help reduce any swelling and pain, your child should keep their leg elevated for a few days following surgery. Encourage them to keep their leg up on two or more pillows turned lengthways to support their whole leg from hip to ankle. Their heel must remain off the pillow to prevent pressure sores (damage to the skin and the tissue underneath) from forming.

Encourage your child to gently move their toes to reduce swelling and stiffness. Pain relief medication will be given regularly to keep your child comfortable.

We will book an x-ray appointment for your child one to two weeks after they leave hospital. This is done to check the fracture position and healing. Sometimes the bone ends can slip out of position, and another anaesthetic is needed to reposition and hold the fracture.

Metalwork used to secure the position of the bones may or may not be removed. Your healthcare team will discuss this with you.

Going home with a walking aid

The physiotherapist will show your child how to move around safely. They may require a walking aid such as crutches or a walking frame. Younger children can struggle with crutches and may need a wheelchair or buggy. The physiotherapist, occupational therapist and nurse will talk to you about taking your child home and discuss any adjustments that may need to be made, such as the need for a wheelchair. These can be borrowed from the British Red Cross; see the useful links section below.

Returning to school

Your child can return to school once they are comfortable. You may need to have a conversation with the school about making some reasonable adjustments whilst your child is still wearing the cast or using a walking aid.

Sleeping

Your child should sleep with their leg up on two or more pillows, supporting their whole leg from hip to ankle. Observe their leg regularly. If they experience severe pain, numbness, blue/grey skin colour, or bad odours from their cast, contact us at 023 8120 6462 or go to your nearest emergency department.

Pain medicine

We encourage you to give your child paracetamol and ibuprofen, if needed, for the first 48 hours after your child leaves hospital. Please follow the instructions on the bottle or packet.

Removing the cast

A cast will usually stay on for 4 to 6 weeks, but the exact time depends on many factors, like the location of the fracture, your child's age, and their overall health. We will remove your child's cast once we confirm their bones have fully healed.

What are the risks of having treatment?

The following complications can happen, but your child's healthcare team will ensure their stay in hospital and the treatment they receive are as safe as possible:

- Bleeding can happen during or after surgery if your child has a surgical cut.
- If your child has surgery, the wound can become infected, but it will usually settle with antibiotics. In extreme cases, they may need further surgery.
- The skin where the surgical cut was made can scar.
- Your child's feeling can change where the surgery was done; this may be temporary or permanent.
- Loss of position – if the position of the bone slips, further surgery will be needed.
- Non-union – when the bones do not heal. This is rare, but if it happens, it often requires further surgery.
- Compartment syndrome – an increase in pressure inside your child's muscle, which restricts blood flow and causes pain. This can be a complication of surgery but may also happen as a response to the injury. If your child experiences the following symptoms, call 999 or go to your nearest emergency department:
    - Pain in their muscle (this can feel like a burning pain or deep ache)
    - Swelling or bulging of their muscle

- Numbness, weakness, or pins and needles
- Tightness or difficulty moving their leg.

You should ask the healthcare team if you would like any more information about complications or if there is anything you do not understand.

Useful links

www.redcross.org.uk/get-help/hire-a-wheelchair

www.nhs.uk/conditions/broken-leg/

www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Muscles,jointsandbones/Caring-for-your-cast-599-PIL.pdf

www.nhs.uk/conditions/compartment-syndrome/

Contact us

If you have any questions or concerns, please contact us.

The advanced clinical practitioner team
Telephone: **023 8120 6462** (Monday to Friday, 7am to 6pm)
Email: **childrensorthoacp@uhs.nhs.uk**

Switchboard
Telephone: **023 8077 7222** (24-hour line)

Ward G3
Telephone: **023 8120 6486** (24-hour line)

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit www.uhs.nhs.uk/additionalsupport

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