

Care and management of an external fixator frame

This leaflet gives more information about fixator frames and how to manage them at home. If you have any questions or concerns, please speak to a doctor or nurse caring for your child.

What is an external fixator frame and why your child has one

External fixator frames are used for different conditions, such as complex fractures or to correct deformities in the leg, and are adapted for each patient. There are also different types of external fixator frame, such as mono-lateral fixation or circular Taylor spatial frames. Your child's surgeon will decide on the right treatment for your child.

An external fixator frame allows precise alignment of the bone and, in some cases, lengthening of the limb. As well as fractures, there can be many causes of lower limb deformities, such as skeletal dysplasia, and Blount's disease.

An external fixator is a metal frame that is attached around your child's limb. When your child is under general anaesthetic metal pins are passed through the skin, muscle and bone. A break is made to the bone and the frame is attached to the metal pins and encircles the limb. The long-term aim of the frame is to make small changes, moving the bone over time, to get a better alignment. The frames are altered by following a strict programme. You will be shown how to adjust the frame and keep the pin sites and frame clean before your child is discharged from the hospital.

Care of an external fixator frame

These frames are often in place for a long time, so they will become part of day-to-day life. Your child will be in hospital for 5 to 7 days. After this, other than weekly or fortnightly outpatient appointments, management is mostly done at home. This is achieved by following the program for turning and managing the pin sites. The pins go straight into the bone, so it is vital these are cared for correctly to prevent infections or complications. You will also be given a copy of our leaflet, Pin site and frame care.

Pain control

We want your child to be comfortable after surgery. Options for pain relief immediately after surgery will be discussed with the anaesthetist on the morning of your child's operation. Pain will then be assessed frequently during their stay. We will gradually change from stronger methods of pain control, given by injection or into a vein, to simpler pain relief which can be given orally (by mouth).

If your child is ever in pain it is important to raise this with the nurse looking after them. Once at home your child might find it helpful to take painkillers (such as paracetamol, please follow the instructions on the packet carefully) before completing the turning programme for the external fixator frame. Adjustments can be uncomfortable and having pain relief before starting can make this easier.

Bathing

Bathing of the affected limb should be avoided at first, and flannel washes used instead. Wound sites from the break of the bone will take about 2 weeks to heal, and need to be kept clean and dry during this time. The orthopaedic team will tell you when your child can return to showering.

Moving (mobilisation)

Before your child is discharged home they will be seen by the physiotherapists and occupational therapists. These teams will work with your child to make sure they can safely move around the ward, get on and off the toilet, and go up and down stairs. Your child might need crutches or a frame and a wheelchair to get around. Your child might be scared of walking on the limb at first but, as the bone starts to heal and their confidence grows, they will find this easier. Mobilisation and an active lifestyle will be vital for rehabilitation and to achieve the best result from the surgery.

The physiotherapy team will continue to support your child once they are discharged from the hospital. This will probably take place during the weekly visits to the outpatients department.

School

We want the external fixator frame to cause as little disruption as possible to your child's schooling. They will hopefully only miss a few days of school at first, when they are recovering at home. We will also try to make sure that any outpatients appointments cause minimal disruption. The turning programme can be done outside of school hours. If your child's school would like any specific information, please pass on the contact details for the specialist nurse at the end of this leaflet.

It is important to tell the school about the surgery so that they can safely accommodate your child when they return. Things they might need to consider are managing your child with walking aids or a wheelchair. No PE should be undertaken. Your child might find half days easier to manage at first. A letter for school will be given to you with recommendations before your child is discharged.

Clothing

Dressing can be a challenge with an external fixator frame. For girls it is often easier to wear skirts or dresses as these tend to not interfere with the limb. For boys it might be easier to wear baggy shorts, or trousers with zips or poppers on the side which can be opened over the frame. An option for underwear is to cut down one side and sew or glue Velcro® in place. A soft or easy-to-fit shoe might be easier to put on at first, or a fluffy sock for warmth.

Preparation and support

Before surgery you and your child will have the opportunity to meet the team and feel prepared for what is going to happen. You will both have the chance to see, handle and talk about external fixator frames. We understand that for some young people this information can be helpful but it can also raise some concerns. We encourage your child to ask questions and we want you all to feel well supported throughout their treatment. If you have any concerns about your child managing with the external fixator frame, please raise them with the orthopaedic team. There are many sources of support if needed, such as our play therapist and psychology team. We hope that you and your child will be able to meet other families in the same situation while in the outpatients clinic for appointments.

Removal

The frame is removed once the correction has been completed and the new bone has grown. You will be given updates on this at the outpatients appointments. Removal is completed under a short general anaesthetic, hopefully as a day case. Where the pin sites are removed, small sticky plaster dressings will be used and need to remain in place for 10 to 14 days. Advice on managing the wounds will be given before discharge. Sometimes a plaster cast is applied after frame removal, for a short time for extra protection.

What you can do to help your child

A balanced diet and good fluid intake while having this treatment is very important. This will support wound healing and pin sites, and is important to help prevent constipation.

When your child is admitted to the ward please bring anything they would usually use, such as clothing (day and night), toiletries, items for entertainment, items for comfort, and any medications they usually take. There is a pull-down bed for an adult family member to sleep next to them. If you choose to do this, please bring items for yourself too.

Contact us

If you have any questions or concerns about your external fixator frame, please contact the orthopaedic specialist nurse, **call:** 07798 712107, Monday to Friday, 9am to 5pm, or call the hospital switchboard, **tel:** 020 7188 7188 and ask for the bleep desk. Ask for bleep 3129 and wait for a response. This will connect you with the specialist nurse directly. Out of hours, please contact Savannah Ward, **tel:** 020 7188 5941 / 9204.

For more information on conditions, procedures, treatments and services offered at our hospitals, please visit **web:** www.evelinalondon.nhs.uk/leaflets

Evelina London Medicines Helpline

If you have any questions or concerns about your child's medicines, please speak to the staff caring for them or contact our helpline, **tel:** 020 7188 3003, Monday to Friday, 10am to 5pm, **email:** letstalkmedicines@gstt.nhs.uk



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