

Living with external fixation

Arm frames



Orthopaedics

Introduction

Coping with a child in an external fixator can seem like a daunting task. The aim of this booklet is to provide parents and carers with information and ideas about ways to cope at home. Please share the information in this booklet with grandparents, babysitters and schoolteachers, or anyone who assists you in caring for your child.

Preparation for surgery

There are a number of ways that your family and child can prepare for treatment.

Diet

As it is common for children to lose their appetite whilst undergoing treatment, overall fitness and good eating habits prior to surgery will assist in a more rapid recovery. During treatment it is important that your child receives a healthy diet to assist with tissue repair, growth and bone healing. If eating or weight loss become a problem, a dietician's help may be required.

Physical

You will meet with the physiotherapist who will give you some simple stretching and muscle strengthening exercises to do before surgery.

Smoking

The Limb Reconstruction service adopts a NON-SMOKING policy. Active and passive smoking is known to have a delaying effect on bone formation, which will prolong healing time (and therefore treatment time).

Drugs

It is important that we know about every medication your child is taking. This includes 'over the counter' drugs, such as Nurofen and aspirin, as well as any vitamins or 'natural remedies'. Some of these drugs affect bone healing and may lead to serious problems.

Psychological

Open discussion about the treatment amongst family is encouraged, as it helps the child come to terms with the treatment plan. If you think that your child is not coping with the idea of the fixator, please let us know so that we can address these issues prior to the fixator going on.

Home environment

The child with a frame on the arm is able to manage at home much as they could previously. They may require some help with dressing, showering/bathing, and going to the toilet. Some children will need some help with cutting up food at meal times.

School

Let your child's school know of the planned surgery. The limb reconstruction team will liaise with the school to advocate for your child if you wish.

Clothing

Clothes may need to be modified to fit over the fixator. The external fixator can be bulky and can catch on clothing (it can also damage bedding, soft furnishings and car seats). Clothing needs to be bigger than usual.

Suggestions include:

- Splitting along the side and arm seam to enable easy fitting of clothing. Velcro/press studs can be used to do up the top.
- Singlet tops.
- Buying clothing in a bigger size than usual.
- Stretchy fabrics.
- Do not buy new or expensive clothing as the fixator often damages clothing.
- It is simple to make a "sleeve" to go over the external fixator, using a tube of material with elastic at each end.

The hospital stay

Admission to hospital is the day of surgery. The length of stay is usually approximately 2–3 days. We recommend no visitors other than immediate family for the first day to allow your child time to recuperate and rest. During your hospital stay, you will be encouraged to participate in your child's care. This is to ensure that you gain confidence and ease with handling the external fixator. Ward nursing staff and the limb reconstruction nurse are available to answer any queries you may have, and discuss ways in which you can manage at home.

The time spent in the operating suite is generally approx 2 hrs. One parent is allowed to accompany the child to the induction room, where the anaesthetic is started, and both parents will be invited to the recovery room as your child wakes up. Once the operation has finished, a member of the surgical team will come and speak to the family.

Return to the ward

Nursing staff will closely monitor your child throughout the hospital stay. They will be assessing vital signs, (heart rate, breathing rate, temperature and blood pressure) and the operated limb.

Pain relief

Treatment with an external fixator will involve some pain and discomfort. For the first days following surgery, pain relief will be provided intravenously by either a patient or nurse controlled system (these methods will be explained to you fully by the nursing staff and anaesthetist). This is then followed by tablets or medicine, which the child will continue to take at home. Pain medication is required regularly during the early part of the treatment time, however once this is past, many children only require occasional medication.

Pin site care

All families are offered a 4 week package of care through the RCH@Home service to attend pin site care at home. Nurses from the hospital or a District Nursing Service will visit the home to attend to dressings. All families are expected to take over care of the pin site cleaning, and will be trained.

Some children find cleaning of the sites uncomfortable to begin with, but this usually settles with time. Be sure that your child does not poke things around the pin sites, or play with them, as this can become a focus for infection and this can prolong treatment time. The only time pin sites are to be touched is during the dressing procedure.

Children are reviewed regularly in clinic during treatment time, and any problematic pin sites can be reviewed then.

Physiotherapy

This is a vital part of successful limb reconstruction. The amount of physiotherapy required will be determined on an individual basis. Your child will be seen on the ward the day after surgery, and gentle stretches will be started. The physiotherapist will need the help and support of the parents from the beginning. This may involve encouragement in the initial phase, and then supervision of exercises as they are carried out at home.

Follow up appointments

You will be seen in orthopaedic out-patients the week after your discharge. After this, you will be seen fortnightly whilst you are correcting your frame, and monthly after this time. Xrays will often be done at these appointments.

Discharge needs

You will need to purchase dressing products, so that the pin site dressings can be done at home. The approximate costs of these are \$60. The limb reconstruction nurse will give you instructions on what to purchase.

Managing at home

In the early stages, the use of interactive toys and frequent scenery changes can help to alleviate boredom. Put some thought into activities that your child can participate in to help pass the time. When visiting new places, it is often useful to do some 'research' into the place you intend to visit.

Transport

Most children are able to travel in the car with some minor adjustments. Many children travel in their usual seat in the car with the affected arm elevated on pillows. A seat belt or other approved safety restraint must be used at all times. To travel without your child being safely restrained is illegal. If your child uses a booster seat, the nurses will ask you to bring it up to the ward to ensure that your child will still fit into it safely.

Positioning and lifting

Correct positioning will be taught by the physiotherapist. This is to prevent the complication of contracture. A contracture is an abnormal shortening of the soft tissues and muscles around the joint. It results in stiffness and deformity. Careful positioning, splinting and following your physiotherapy regime can prevent contractures developing.

Other handy information

Disabled parking permits

Ask the ward nurses/care manager or limb reconstruction nurse for an application form for a temporary disability sticker for your car. It can be very difficult getting your child in and out of a car in a small car space. The medical section of the form will be completed, then you must complete the rest and take the form to your local council to have the sticker issued.

VPTAS forms

If you have to travel more than 100 kms or 500 kms for five weeks or more to the nearest medical or dental specialist from home you may be eligible for travel assistance through the Victorian Patient Transport Assistance Scheme. Forms are available from the limb reconstruction nurse, the care manager on the ward or from the ward social worker. Forms are also available at Department of Human Services regional offices. Your GP and surgeon will need to complete some sections of the form before you can claim.

Internet sites

There are a number of sites that have information about external fixation devices. Please note that these sites will have some information and practices that vary from ours. This is not to say that some are right and others are wrong, rather, all are different.

When to call us

- If there is an increase in pain of the affected limb.
- If there is any redness, swelling or tenderness around any of the pin sites.
- If there is any discharge from the pin sites.
- If there is a fever that can't be explained by a cold, ear infection or other illness.
- If there are problems with the fixator, such as broken wires or pressure areas on the skin under the rings.

Contacts

Limb Reconstruction Service Monday to Thursday on **9345 7027** or via switchboard on **9345 5522**
(Note if there is no answer, please refer to the ward or leave a message)

Platypus Ward **9345 5432**

Physiotherapist **9345 9300** or via switchboard on **9345 5522**

Occupational Therapist **9345 9300**

Education Advisor **9345 9700**

Specialist Clinic Appointments **9345 6180**

Web www.rch.org.au/limbrecon/
