

# Fractures

## Living with external fixation



### 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.

#### Physical

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

#### 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.

#### Home environment

If your child is going to be wheelchair bound post operatively, the home environment may need to be modified. The ward and limb reconstruction nurses, the physiotherapist and the occupational therapist will discuss with you ways in which you can manage the stairs, toilet, bathroom, and bedroom. Equipment required can be hired from the hospital.

#### School

Let your child's school know of the child's injury. If your child is to be wheelchair bound post operatively, the school may need to install ramps for easy access. The orthopaedic team will liaise with the school to advocate for your child if you wish. Children returning to school need to be able to toilet themselves unassisted.

#### 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:

- Pull away track suit pants with Velcro or press-studs down the outside seam.
- Underwear or boxer shorts can be worn with press-studs or velcro down the seam.
- Girls often find wearing a long skirt a comfortable alternative to pants.
- 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.
- Children with a fixator on the thigh are able to wear their usual flat shoes, however those with lower leg fixators may need modification of their footwear. This can be addressed whilst you are in hospital. For lower leg external fixator short ankle socks are also needed.

#### The hospital stay

During the 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.

#### 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 may be provided by an intravenous infusion 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 rehabilitation following a fracture. 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. A lot of children with a fixator are able to walk with assistance after review in clinic.

## Follow up appointments

You will be seen in orthopaedic out-patients approximately the week after your discharge. After this, you will be seen on a regular basis whilst you have the frame. Xrays will often be done at these follow up appointments.

## Discharge needs

Certain equipment may need to be hired from the hospital.

This may include:

- Wheelchair
- Legboard
- Walking frame/rollator
- Crutches
- Portable ramps
- Commode chair
- Shower chair.

You will also 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 or ward nurse will give you instructions on what to purchase.

## Managing at home

Many children will spend some time in a wheelchair but eventually, we like all children to be up walking if able. It is important that walking is encouraged once allowed, as this helps the child gain independence, which in turn helps with acceptance of treatment. Once your child can safely use the crutches/frame then the wheelchair should be used only for long distances. 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. Check that there are facilities for the disabled; wheelchair access is vital if your child is using one.

## Transport

Most children are able to travel in the car with some minor adjustments. Many children travel in the front seat of the car with the affected leg elevated on pillows or a small beanbag. 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 may 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. Careful positioning, splinting and following your physiotherapy regime can prevent contractures developing. To prevent a foot deformity, always use the splint or sandal provided, particularly when resting in bed. Older children with fixators can be very heavy, particularly if both legs are treated. The occupational therapist (OT) may be of assistance with providing equipment (eg. hoists). Likewise if you have any concerns about lifting your child or about the amount of support you have at home please discuss them with the limb reconstruction nurse, or the nurses on the ward.

## 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 5411** 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/](http://www.rch.org.au/limbrecon/)