Everyone Matters

NHS
Tameside and Glossop Integrated Care
NHS Foundation Trust

Paediatric Fractured Femur

Patient information Leaflet

September 2018

This leaflet aims to help you understand what the treatment is for a fractured femur and the care that will be provided and what you can do for your child.

Your child has a fractured femur

Welcome to the Children's Unit.

All the staff on the ward appreciate that this is a difficult and stressful time for both your child and your family. We have devised this booklet to assist you throughout your child's admission and guide you through the process of their stay by explaining the options that ***MAY*** be offered to you.

We hope this booklet answers most of your questions but please feel free to ask your nurse to clarify any points in this booklet and also any further questions you may have.

Please note that this booklet contains the most common options offered by the orthopaedic surgeons at this hospital. However, the Consultant will offer the most suitable option depending on your child's injury. Therefore you may not be offered all the options described.

What is a fractured femur?

The femur is the long bone of the upper leg – the thigh bone. It is the biggest bone in the body.
A fracture means a break in the bone.

Terminology
In addition to hearing fractured femur you will also hear other words to describe your child's specific type of fracture – the most common of these are:

- Fractured shaft of femur – this refers to the portion of the thigh bone that is at any point from the hip to the knee
- Distal/proximal – this refers to the injury being at the top or bottom of the thigh

How will the fracture be treated?

The initial treatment of the fracture depends on the child's age and weight.

If your child is less than 16kg and below 18 months of age the orthopaedic doctor may have requested that Gallows Traction be applied.

If your child is over 16kg and over 18 months of age your child will have a piece of equipment applied called a Thomas Splint.

Gallows Traction

Your child will have the traction applied once s/he arrives on the ward after being given adequate pain relief.

The procedure may be frightening for your baby but we will endeavour to make the process as quick and comfortable as possible.

RCN (2015)

Gallows traction involves putting a piece of Elastoplast (sticky fabric plaster) dressing down each side of the leg – this has a foam piece between the two pieces of dressing that protects the ankle. The leg is then bandaged to secure the dressings and provide comfort. The end of the foam piece has a string attached which will be used to secure the traction. Both legs will need to have the dressings applied.

Following the application the child will then have both legs lifted up and the strings threaded through pulleys which are situated above the cot. Once the nurses/doctors are satisfied that the traction is even the strings will be tied. Your baby's bottom will just clear the bed and your baby will be laid on the mattress. Your baby's own body weight will provide the counter traction.

The nurse will show you how to tend to your baby's needs – nappy care, feeding and bathing etc. Your baby will need to lie flat in the cot throughout the traction period in order for treatment to be effective.

The length of stay in hospital will be anywhere between two – six weeks. The orthopaedic doctor will try to give you a rough idea of the length of stay but this may change.

After an initial period on traction the orthopaedic doctor may offer you the option to keep your child in hospital or go home with a plaster of paris called a Hip Spica.

These options will be discussed with you by the Orthopaedic team. You will need to decide whether getting your child home earlier with a hip spica will be better for your circumstances than your child staying in hospital and having their treatment completed in gallows traction.

To assist you in this decision the staff can provide you with a leaflet that will describe the care you will need to give your child and the possible difficulties you may encounter.

Pros and Cons

The positive argument for a hip spica

- Your child will be able to go outside in a buggy in the fresh air.
- Your family life can get back to normal.
- Your hospital stay is reduced.
- Most children adapt to the hip spica quickly and very well.

The negative aspects of a hip spica

- The cast can be heavy.
- Your child can develop sore skin if the cast gets wet with urine leakage.
- The cast can become quite smelly if the cast becomes wet with urine leakage.
- Your child can become frustrated due to lack of mobility in the cast.

If you decide that a hip spica is the best course of treatment for your child what happens next?

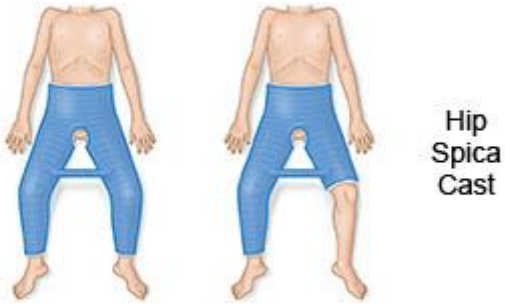
Once the Consultant has mentioned the possibility of your child going from traction to a hip spica, and you are happy to proceed, the planning can take place.

Your child will need to go to theatre as s/he will need to be asleep throughout this procedure.

The reason for this:

- To ensure your child is comfortable throughout the procedure and is not frightened.
- To obtain the best possible position in the cast to ensure healing.

However if your child is under 2 years old s/he will need to be taken to the Children's Hospital in order to safely anaesthetise for the procedure. (If this is the case the staff will liaise with the hospital and arrange transfer of your child as appropriate. Beds are limited at the children's hospital and there may be a wait for an available bed. Staff will keep you updated).



Drugs.com (2016)

Thomas Splint

If your child is over 18 months or above the weight guidelines for Gallows' traction a Thomas splint will have been applied during their stay in the Accident and Emergency department.

RCN (2015)

Once your child has arrived on the children's unit the nursing staff will transfer him/her into a bed. The bed looks rather like a four poster bed with various pulleys attached to the overhead and foot poles.

The usual duration of stay in hospital for a child in a splint is between 3 and 8 weeks – depending on your child's age and the rate of healing of the broken bone.

Initially your child will have their leg and splint resting on a pillow – this may be for a short while, but occasionally if your child is very little this may remain for the duration of their stay.

Once your child has settled in the splint they will need more movement around the bed. To facilitate this, the nurse will apply a system of strings and weights to balance the traction and allow movement up and down the bed.

The nurse will explain the procedure and pain relief will be given to your child before the strings are applied. The strings being applied do not hurt your child but they are usually upset due to anxiety and remembering the initial application of the splint.

It is especially helpful if the parent/carer remains with the child and also remains calm and supportive throughout the procedure.

An over bed aid to assist the child to lift him/herself up will also be attached to the bed and the child will be encouraged to use this.

Safety First
Please note that the nurse will be able to assist your child to move around the bed but is unable to lift your child. Please encourage your child to do as much as possible using the aids provided.

What happens next?

Once your child has settled in the Thomas Splint the orthopaedic surgeon may offer you a variety of options for you to consider.

These may include:

- Remaining on the Thomas splint. The doctor may request additional/removal of some of the weights, dependent on the results of x-rays and how well the bone is healing.
- Fixing the bone by surgical procedures – however a surgical procedure may not be an option due to the risk of disruption to the growth plate.

You need to consider the pros and con's associated with the above options. Some of which are:

- Length of stay is reduced if bone fixed by surgery.
- Surgical procedure will result in a scar.
- Re-introduction of short term pain relief following surgery.

Initially your child will be having x-rays weekly; this is sometimes reduced towards the end of the child's stay in hospital.

Medicines

During your child's stay the staff will be able to provide different medications for various reasons – the main medicines used are:

- **Oramorph** – this is used initially for pain relief during the early stages or prior to any procedures.
- **Nitrous Oxide** (gas and air) – can be used as a 'one off' for certain procedures such as applying traction
- **Paracetamol** – this is used for pain relief – also used to control temperature.
- **Ibuprofen** – This is used for pain relief and is particularly useful for aching types of pains
- **Diazepam** – used to control spasms (cramp type pain) that often accompany large broken bones due to muscle involvement around the area of injury.
- **Lactulose** – used to aid bowel movements by keeping motions soft.

General points

Diet

You will need to consider what your child is eating during their stay in hospital.

You need to offer foods that provide good bone-healing properties to give your child the best possible help with recovery.

The staff will offer guidance and support to assist you with this but as general guide foods that contain protein and calcium are most valuable.

The foods to encourage are:

- Milk (including milkshakes)
- Yogurts – especially full fat
- Cheese
- Beans
- Eggs

Children in traction can become constipated due to immobility. Encourage a healthy fibre filled diet.
The foods to encourage are:

- Cereals
- Beans
- Fruit
- Vegetables

Try to limit the amount of sweets and crisps your child eats and try to save these for after tea-time or as a treat. This is due to a reduced appetite due to immobility as well as encouraging a healthy, balanced diet.

School

Inform your child's school as soon as possible about their hospital admission and potential length of time off school.

Once your child is settled on traction we encourage all children to do daily school work so they do not fall behind at school. This also prevents boredom and creates structure for the day.

Please ask your child's school/teacher to provide work for your child to do.

Your child will have internet access via the computer in the playroom.

The hospital Playteam will devise a school/play plan.

Daily cares and checks
The nurses on the ward will perform regular observations on your child initially; this will gradually be spaced out throughout their stay on the ward. They will do traction checks as well. We encourage parents to be involved with the traction cares as much as possible and we will show you how to care for your child and their traction.

- Keep the end of the bed tilted, unless told otherwise.
- Outer bandages will need to be changed every day.
- Oiling the ring at least every 4 hours with olive oil.
- Ensuring the skin around the ring is kept clean and dry to prevent sores.
- Observe for pressure at the back of the ring. Padding should not be used as this can increase pressure on the skin where the ring is. Elevating the foot of the bed may relieve this.
- Look for any breakdown or redness of the skin.
- Observe for any pressure in the groin area. This can be relieved by good skin care and/or repositioning the child.
- Prevent soiling of the ring when using bedpan/changing nappy.
- Check the weights (if used) are not resting on the floor.
- Encourage your child to exercise their ankle/foot of the effected limb regularly throughout the day. Encourage then to use the non-broken limb as normal.

If you notice any changes, breaking down of skin, redness, swelling etc let your named nurse know as soon as possible.

Removal of traction and discharge home

When the time comes for the traction to be removed do not be surprised if your child is frightened and upset during the removal of the splint.

It is common for the skin on the child's leg to be quite dry and flaky. This usually takes a few days to correct itself and it is a good idea to use baby oil or lotion after having a bath daily.

Occasionally the child's leg can look quite thin – this is due to the lack of muscle usage whilst in the splint. This will correct itself in time.

Once the splint is removed your child will have a short period of bed rest. Your child will then be assisted to mobilise – according to the Consultant's instructions. The physiotherapist will assist your child to achieve mobility with the provision of the appropriate aid.

Outpatient's appointments will be arranged for your child in accordance with the Consultant's request.

If you have any concerns or worries please speak to the nurse looking after your child who will endeavour to help

In compiling this information leaflet, a number of recognised professional bodies including the Department of Health, NHS Improvement, NHS Choices, have been used.

References

Royal College of Nurses (2015) Traction Principles and Application.

If you have any questions you want to ask, you can use this space below to remind you

If you have a visual impairment this leaflet can be made available in bigger print or on audiotape. If you require either of these options please contact the Patient Information Centre on 0161 922 5332

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Document control information

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