



Royal Manchester Children's Hospital

Ponseti Technique – Tendon Transfer

Information for Parents and Carers



Your child has been assessed in clinic as needing a **tendon transfer**. The following information should help you and your child understand and prepare for the operation.

What is a tendon transfer?

This is a surgical procedure which will take place under a general anaesthetic. The operation permanently moves the Tibialis Anterior muscle tendon from its position at the inside of the ankle towards the outside of the foot. The tendon transfer technique is recognised as being part of the Ponseti method for the treatment of a club foot.

Indications for a tendon transfer?

When your child walks, you will notice that they are taking most of their weight through the outside border of their foot as they step onto the foot. This movement is known as “supinating”. It occurs because the Tibialis Anterior muscle on the front of your child’s lower leg is working too hard. Normally this muscle should simply pull the foot and ankle directly upwards, but if it pulls too hard it will pull the foot inwards as the foot and ankle move upwards.

You may also notice that the outside border of the affected foot is becoming curved as a result of the strong muscle pull and the crease on the inside of the foot may have returned. These problems are known as a ‘relapse’ of your child’s club foot.

The Tibialis Anterior muscle and the calf muscle tendon are two of the structures that may have caused the original club foot deformity. As an infant, your child is likely to have already had a tenotomy – cutting of the calf muscle tendon – to release the tension in the calf muscle. When a tendon transfer is indicated, your child may also need a further tenotomy if their calf muscles have become tight again. Your Consultant will fully discuss with you what your child needs.

Why has this relapse happened?

In some children, the relapse is because they have not been wearing their boots and bar for the expected length of time. The boots and bar keep the Tibialis Anterior muscle and the calf muscles in stretched positions, while the small bones of the foot re-shape, allowing the treated club foot to maintain a corrected position. Without the boots and bar, the muscle tendons are able to overwork and can lead to further deformities as described above.

In other children, it can still happen once the boots and bar have been discontinued, even when they have been worn for the expected length of wear, although the chances of this happening are much reduced. It is thought that in some children, the original deforming muscle forces continue to have a strong adverse affect on their foot function. This can sometimes be seen in children whose original club foot was a more difficult foot type to treat – a complex club foot.

What are the benefits of a tendon transfer?

- Correction of the foot deformity
- Improved foot position during walking
- A pain free foot function

What are the risks of a tendon transfer?

- A low risk of bleeding and nerve damage
- Pulling out of the transferred tendon
- A need for further procedures

When will the operation take place?

The procedure can normally take place from 3 years of age onwards. Your child may need an X-ray before a decision is made to do the operation. This is to assess if one of the bones in the foot – the lateral cuneiform – is big enough to take the transferred tendon. If your child is old enough to have the operation and you are in agreement with the procedure, their name will be added to a waiting list.

Preparation before surgery

Before the operation, your child will need **pre-operative plaster casting**. The plaster cast will be applied to the foot and leg that will be operated on to make sure the foot is in the corrected position. Your Consultant will decide how many plasters your child will need – normally they will need between one and three plaster casts, changed on a weekly basis, depending on how tight the muscles of the foot have become. The plaster will be applied above the knee, with the knee held in a slightly bent position. One hour after the plaster has been put on your child is free to walk on their plaster. Your child will be referred to a Physiotherapist to be provided with a walking aid for use after their operation. This will be arranged when you are at one of your Out-Patient appointments.

If your child is having an operation on both feet, they will also be assessed in a pre-operative clinic by a Specialist Nurse who will decide if your child requires any special equipment for after their operation.

You will be asked to sign a consent form for your child's operation. Please make sure you understand what is planned and have your questions answered before signing the form.

Operation day

You will be given **fasting instructions** before admission to hospital and these must be read carefully as the operation may need to be cancelled if these have not been closely followed. You should arrive at the ward at the time stated on your admission letter.

On the ward, you will be introduced to your named nurse and will be shown around the ward facilities. There are a number of admission procedures that the nurse will then go through with you. On the ward you will be seen by the Consultant and your child will also be assessed by an Anaesthetist to check that they are well enough to have their operation.

When the theatre staff are ready for your child, you will be taken with them to the anaesthetic room. You can stay with them as they are put to sleep. One of the nursing team will then escort you back to the ward.

In theatre, your child's plaster will be removed using a plaster saw. The Consultant will perform the procedure. The transferred tendon is held in place by a surgical button which is temporarily attached by some stitches to the sole of your child's foot. Dressings will be applied over the small incisions on your child's foot. A full leg plaster is then applied in theatre while your child is still asleep.

When your child is brought back to the ward, they will have a number of observations monitored by the nursing staff. Your child's pain levels will be assessed and appropriate pain relief be given.

Normally a child having an operation on one side will be able to go home the same day and a child having both sides operated on will stay on the ward overnight.

Before being discharged home, your child will be checked on the ward by a member of the medical team. A coloured plaster will be put over the top of the theatre plaster by one of the nursing staff.

After care

Your child may need some pain relief after their operation especially at night times as they may experience some discomfort and occasional muscle spasms. It is important that they remain comfortable and in the first few weeks it may be useful to give them regular pain relief.

Your child should **not take any weight** through the operated foot in the **first two weeks** following the procedure. Children who have had one leg operated on, should use the walking aids already provided. If both feet have been operated on, they will need to use a wheelchair.

From two weeks after the operation onwards, your child should be encouraged to try and take weight through their feet and walk on their plaster or plasters as able.

If you have any questions or concerns after the operation please use the contact numbers detailed below.

Out-patient clinic follow-ups

Your child will be given an appointment to attend the Out-patient clinic 5 – 6 weeks after the operation.

It is often useful for your child to be **given some pain relief** before they arrive at the clinic as the plaster cast and the surgical button, will both need to be removed.

Please bring your child's socks and some supportive footwear with you to this appointment as they will be encouraged to start weight bearing without their plaster during that clinic visit, to allow the tendon to start moving properly.

Your child will be reviewed two weeks after the plaster is removed and it is expected that they are walking independently by that appointment, even though their walking pattern is likely to be a little slower than normal and their operated foot will be turned out to the side. This position will improve with time. Some children may be referred for some Physiotherapy depending on how quickly they are making progress.

Clinic reviews will then be made and determined by the Ponseti clinic team.

Contact details

Appointment enquiries:

Parent advice line **0161 701 8311**

Out-patient clinic **0161 701 9001**

Monday – Friday

9.00 am – 5.00 pm

Ward 78 **0161 701 7800**

Out of normal working hours

No Smoking Policy

The NHS has a responsibility for the nation's health.

Protect yourself, patients, visitors and staff by adhering to our no smoking policy. Smoking is not permitted within any of our hospital buildings or grounds.

The Manchester Stop Smoking Service can be contacted on
Tel: (0161) 205 5998 (www.stopsmokingmanchester.co.uk).

Translation and Interpretation Service

These translations say "If you require an interpreter, or translation, please ask a member of our staff to arrange it for you." The languages translated, in order, are: Arabic, Urdu, Bengali, Polish, Somali and simplified Chinese.

اذا كنت بحاجة الى مترجم، او ترجمة، من فضلك اطلب من احد موظفينا ترتيب ذلك لك

اگر آپ کو ایک مترجم، یا ترجمہ کی ضرورت ہے، تو برائے کرم ہمارے عملے کے کسی رکن سے کہیں کہ وہ آپ کے لیے اس کا انتظام کرے۔

আপনার যদি একজন দোভাষী, অথবা অনুবাদের প্রয়োজন হয়, দয়া করে আমাদের একজন কর্মীকে বলুন আপনার জন্য ইহা ব্যবস্থা করতে।

Jeśli Pan/Pani potrzebuje tłumacza lub tłumaczenie prosimy w tym celu zwrócić się do członka personelu.

Haddii aad u baahantahay tarjubaan, fadlan waydii qof ka mid ah shaqaalahayga si uu kuugu.

如果你需要翻译或翻译员, 请要求我们的员工为你安排



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