



**Wrightington, Wigan and
Leigh Teaching Hospitals**
NHS Foundation Trust

Midfoot and Hindfoot Fusion Surgery v4

Midfoot and Hindfoot Fusion Surgery

Patient Information

Trauma & Orthopaedics Department

The Patient Information Leaflets page on the Trust website is available on the link: <https://www.wvl.nhs.uk/patient-information-leaflets> or scan the QR code.

Author ID: ML Musc 041

Leaflet ref: 4

Leaflet title: Midfoot and Hindfoot Fusion Surgery

Last review: August 2021

Expiry Date: August 2023

This leaflet has been written to support the advice and instructions given to you by your Consultant, Practitioner and Physiotherapist.

Midfoot and Hindfoot Fusion Surgery (Arthrodesis)

This procedure can include the following joints:

- Tarsometatarsal Joints
- Talo-Navicular Joint
- Sub-talar Joint
- Calcaneo-Cuboid Joint
- Naviculo-cuneiform Joint

Principles of Fusion Surgery

This procedure involves the permanent joining of joints to relieve pain from arthritis and can sometimes improve the foot and ankle position. The joint surfaces of the bones are removed to reveal healthy bone and the bone ends are then compressed together and held in place with various types of metalwork. New bone grows across the ends of the bone across the joint space 'fusing' the joint. You will be in a below knee plaster cast or walking boot for a minimum of 12 weeks following surgery.

Risks/Complications of the Procedure

All surgery and anaesthetics carry some risks, particularly if you have other medical problems, smoke or are overweight. The healthcare team looking after you have been trained to make sure that these are minimised, and your treatment is carried out safely. The risks are:

1. Infection and wound healing problems

- Superficial infection may occur at your wound site.
- Deep infection may occur early after the operation or much later.
- Problems can occur with wound healing particularly if patients are suffering from chronic illness such as diabetes or rheumatoid disease or are taking certain medications which affect the immune system.

2. Non-union of fusion

In around 10% of patients, a non-union occurs (where the bones do not fuse together), which may then require further surgery. Smoking has a significant damaging effect on the healing process and must be stopped entirely before and after surgery.

3. Mal-union

A mal-union of the fusion can occur if the corrected position of the foot following surgery drifts back to its original position, before the fusion has fully healed. This is a rare occurrence.

4. Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)

Despite taking precautions to try to prevent a blood clot, this can occur in the veins of the legs after this type of surgery (and is known as deep vein thrombosis).

Occasionally these clots can dislodge and travel through the heart to the lungs. This is known as a pulmonary embolism (PE). Extremely rarely this can be life-threatening.

5. Persistent pain and swelling

The operation may not relieve all of your pain and you may continue to experience some discomfort. Complex regional pain syndrome, while uncommon, can develop following surgery, causing pain, swelling and skin changes. This will normally settle over time but may need specialist input from the Pain Management Service.

6. Nerve damage

Very occasionally nerves can be damaged or stretched during your operation. This usually recovers over a period of time.

7. Other recognised risks

These include bruising, urinary retention and the risks associated with anaesthesia and blood transfusion.

8. Strain on adjacent joints

The adjacent joints of the hind and mid foot can take more strain following fusion and this can lead to the onset of symptoms elsewhere in the foot.

Pre-operative Assessment

In preparation for surgery, you will be asked to attend a pre-operative assessment clinic where a check of your general health will be performed by the healthcare team. If you have a long-term illness, or heart, lung or metabolic (diabetes, thyroid) condition, an anaesthetist will examine you to make sure you are medically fit for an anaesthetic. The anaesthetist or nurse will discuss with you the different types of anaesthesia and pain management methods available to you. It may be necessary for you to be seen by a specialist if you have a more serious health problem. If you are not considered fit for an anaesthetic and surgery, your operation will be postponed pending further investigation and/or treatment.

It is important that you inform the nursing staff if you take any form of medication. If you are on blood thinning tablets e.g. Aspirin, Warfarin, Clopidogrel or Dipyridamole, please inform

the nursing staff, as you may have to stop taking this medication before the operation. This would only be under the direction of a doctor. If you wish to speak to a member of the pain team before your operation, please inform the nurse at the pre-operative assessment clinic. It is important to let the staff know if you take painkillers normally at home, if you have experienced any problems such as allergies or stomach upsets or if you have any worries about pain management.

It is usual for you to be admitted on the day of your surgery. You will be sent further information regarding the time to come into hospital and which ward to attend closer to the date of your operation.

Preparing Yourself for Surgery

It is important to look after yourself before you come in for surgery. This includes keeping your skin clean and dry. You must report any rashes or breaks in your skin to the preoperative clinic staff. Smoking will delay the healing process and can cause 'non-fusion'. Your surgeon may not proceed with the surgery if you are still smoking. If you do smoke, please contact your GP for information and support to stop smoking.

On the morning of your operation, please take a shower/bath before coming into hospital. When you are admitted to hospital, members of the healthcare team will prepare you for theatre. The limb that will be operated on will be marked before the operation. A member of the healthcare team will escort you to the operating theatre. If you feel you may struggle to cope at home after your surgery, you must inform a member of the pre-operative or surgical team before your admission.

After the Operation

You will spend a short time in the recovery area of the operating theatre. You will then be taken back to the ward where your care will continue until you are fit to be discharged. Some discomfort will be experienced following the operation, so painkilling medication will be given to help ease the discomfort.

Exercises

The following exercises should be practised hourly unless otherwise instructed by your physiotherapist. Perform each exercise on both legs. If unexpected pain develops, you must stop exercising and inform your physiotherapist and nurse.

Deep Breathing Exercises

- Ensure you are sitting upright in bed.
- Take three or four deep breaths (no more as you may feel lightheaded).
- Breathe as deeply as possible, forcing the air out on your fourth breath. This may make you cough.

Foot Exercises

- Gently paddle your non-operated ankles up and down. Repeat this five times.
- With both feet, try to gently move your toes up and down.

Leg Exercises (perform on both legs)

1. With your legs straight in the bed, press the back of your knees into the bed. Your thigh muscles should tighten up. Hold for five seconds then gently release. Repeat this ten times.
2. Clench the muscles in your bottom together. Hold for five seconds then gently release. Repeat this ten times.
3. Lying in bed, keeping your knee straight, lift your leg approximately ten inches from the bed. Hold for five seconds then gently release. Repeat this ten times, with each leg.
4. If you are sitting in the chair or on the edge of the bed, straighten your knee out in front of you. Hold for five seconds then gently release. Repeat this ten times.

Walking

Your physiotherapist will discuss your individual post-operative instructions with you, including how much weight you are permitted to put on your operated leg. It is important that you do not attempt to walk until seen by your physiotherapist after your operation. Most people start to walk one day after this operation, depending on the Consultant's instructions, and your pain, swelling and wound healing.

Most patients are allowed to 'touch weight bear' through the operated leg although there are occasions where you will be 'non-weight bearing' (not allowed to put your foot on the floor). Either a 'backslab' plaster cast, at the time of your operation, or a walking boot on the ward will be applied at the discretion of the surgeon. Once you have been given your post-operative information, your physiotherapist will assess and provide you with an appropriate walking aid, and you will practise mobilising, initially under supervision. You must use the walking aids until you return to clinic for your review.

Post-Operative Care Instructions

If you are still in a plaster cast at your 6-week review, it will be removed, and you will be fitted with a walking boot. The boot must be used for a further 6 weeks (12 weeks in total).

Walking Boot

- Your physiotherapist will teach you how to apply, remove, and manage your boot.
- The boot is usually applied one to two days after your operation, depending on the swelling.
- Ensure your heel is back in the boot and your foot is flat when wearing it.
- The boot may be removed for hygiene, wound inspection, and when dressing/undressing.
- Check the skin around your ankle for pressure sores when the boot is off.
- Inflate the air pockets in the boot when walking and deflate when resting.
- The boot can be wiped clean with a damp cloth, and the soft inner liner can be washed in a mild soap solution.

If you have any problems or queries regarding the boot, please contact the Physiotherapy Department or foot and ankle practitioner.

Boot Usage Schedule

- First 6 weeks: Wear the boot for 23 hours per day, including through the night. Do not walk without the boot.
- Weeks 6 to 12: Wear the boot when weight-bearing but can be removed at rest and at night if advised. Do not walk without the boot.
- At 12 weeks: Depending on your consultant's instructions, the boot may be removed, and you may walk in supportive shoes.

Stairs / Steps

Going Up: With the banister on one side and the crutch in the other, step your non-operated foot onto the step, followed by your operated foot, and the crutch last onto the same step.

Going Down: The crutch goes down onto the first step, followed by your operated foot, then your non-operated foot last onto the same step.

On Discharge

Once you are safely mobile and can manage stairs or steps, further physiotherapy is not necessary. Initially, keep walking to a minimum; you may walk outside as soon as you feel confident. Continue using walking aids until further instructed by your consultant. When resting, keep the foot raised.

Driving

You will not be able to drive while in the boot/plaster, routinely for 12 weeks or possibly longer.

Routine Post-Operative Appointments

- **Nurse Led Clinic Appointment:** 2 to 3 weeks for removal of sutures.
- **Consultant Clinic:** 6 weeks and 12 weeks.

Do not hesitate to contact the team should you have any queries or concerns after discharge.

Contact Information

If your call is connected to an answering machine, please clearly leave your name, date of birth, telephone number, and a brief description of your enquiry.

- **Foot and Ankle Practitioner:** 01257 256372 (Monday to Friday 9am until 4pm)
- **Outpatient Department (not for appointments):** 01257 256299
- **Admissions:** 01257 256256
- **Appointments (Outpatients):** 01257 256295
- **Occupational Therapy:** 01257 256306 (Monday to Friday 9am until 5pm)
- **Pain Team:** 01257 773139 (Secretary)
- **Wrightington Office:** 01257 256384
- **RAEI Office:** 01257 252365
- **Physiotherapy:** 01257 256307
- **Pre-operative Clinic:** 01257 256340
- **Ward D:** 01257 256269
- **Ward A:** 01257 256276
- **Ward B:** 01257 256277
- **John Charnley Ward:** 01257 256265/7

Comments, Compliments or Complaints

The Patient Relations/Patient Advice and Liaison Service (PALS) Department provides confidential on-the-spot advice, information, and support to patients, relatives, friends, and carers.

Contact Us: Tel: 01942 822376 (Monday to Friday 9am to 4pm)

The Patient Relations/PALS Manager
Wrightington, Wigan and Leigh Teaching Hospitals NHS Foundation Trust
Royal Albert Edward Infirmary
Wigan Lane
Wigan WN1 2NN

Ask 3 Questions

Become more involved in decisions about your healthcare. You may be asked to make choices about your treatment. To begin with, try to make sure you get the answers to three key questions:

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

How We Use Your Information

For details on how we collect, use, and store the information we hold about you, please see the patient information leaflet, Ref. Corp 006 *How we use your information*, available on the Patient Information Leaflets page on the Trust website. This leaflet is also available in audio, large print, Braille, and other languages upon request. For more information, please ask in the department/ward.

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Call 111 first when it's less urgent than 999.

Phone: 0808 802 1212

Text: 81212

www.veteransgateway.org.uk



Version number: **1.0**
Last modified date: **13th June 2026**

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