First metatarso-cuneiform joint arthrodesis
For the treatment of midfoot osteoarthritis

Information for patients
Sheffield Teaching Hospitals
What is an unstable or arthritic metatarso-cuneiform joint?

The first metatarso-cuneiform joint is one of the joints in the arch (instep) of the foot. An unstable first metatarso-cuneiform joint sometimes forms part of a flat foot deformity (reduced instep height) and can also be affected by arthritis.

What are the treatment options for an unstable/arthritic first metatarso-cuneiform joint?

Non-surgical options

Non-surgical treatments can be used to try to manage the pain and disability caused by a flatfoot deformity or arthritis. They cannot 'cure' the deformity or arthritis.

- Modifying your activity levels
- Using pain killers
- Changing footwear to extra-width or with a supportive sole
- Bespoke footwear provided to accommodate any deformity
- Insoles to support the foot
- Intra-articular steroid injection therapy

Surgical options

- **First metatarso-cuneiform joint fusion**
- More extensive fusion (of neighbouring joints)
- Dorsal exostectomy (for isolated bony protrusion without arthritis)
What is a first metatarso-cuneiform joint fusion?

A first metatarso-cuneiform joint fusion is a procedure that irreversibly stiffens one of the joints in the middle of the foot, that lies between the first metatarsal and first cuneiform bones.

Before surgery
joint sags, causing pain

After surgery
joint is fused

Surgery may be recommended if you are experiencing pain and activity limitation/disability along with either:

- Pain in the instep of the foot
- An unstable or arthritic first metatarso-cuneiform joint
- Difficulty with shoe fit despite wearing sensible footwear

What are the intended benefits of surgery?

- To reduce pain and/or deformity in the arch of the foot (associated with the metatarso-cuneiform joint)
- May reduce flattening of the arch of the foot
Are there any risks involved in this surgery?

The general risks of foot surgery are outlined in the 'Risks and complications associated with foot and ankle surgery' booklet which you have received in your preoperative information pack. The following risks are procedure specific risks:

- Joint stiffness
- Arthritis of neighbouring joints
- Non-union of bone (where the two bones do not knit together)
- Fixation problems (with the screws/plates/pins)
- Dorsal displacement of the first metatarsal

Is this a day surgery procedure?

Yes, you can go home the same day (you will be admitted for half a day).

How long does the operation take?

The operation usually takes between 45-75 minutes.

Where will my wound be?

The incision is usually made on the top of the foot.

Will stitches be required?

We try to use absorbable stitches, where possible. These are typically removed two weeks after surgery.

Will I need screws or wires?

Internal screws, pins or plates will be used. You should not notice these, however, they occasionally may need to be removed.
Will I have a plaster cast?

Yes, typically you will be placed in a non-weight bearing below knee cast for 2 weeks. You may then be placed in a smaller non-weight bearing below ankle cast for a further 6 weeks. If required, you may need a further 2-4 weeks in a removable weight bearing boot.

NB: Casting regimes vary and may need to be extended according to personal factors such as bone healing times etc.

How long will I need off work?

This will depend on the type of job you do, and the speed of your individual recovery. For non-manual work, we usually recommend that you take approximately 8-10 weeks off work. For manual work, approximately 12 weeks.

First metatarso-cuneiform joint fusion

The day of the operation

The operation is usually performed under a local anaesthetic. This means you will be awake during the procedure and can eat and drink as normal, and take your normal prescribed medications on the day of the operation (unless advised otherwise by one of the team).

The local anaesthetic is administered via injections around the ankle (you may also be offered an injection in the back of the knee). Most patients find this to be more comfortable than a dental injection.

The operation takes 45 to 75 minutes, although you will be in the Day Surgery unit for about 4 hours. This is to allow you to rest after your operation and for us to provide you with discharge information and packs as required. This additional information will give you details on how to look after yourself when you get home, what to look out for and who to contact if you have any concerns.
You **must have a competent adult at home** for the first day and night after surgery. This is to ensure you are safe for the first night.

You will be immobile compared to you are able to do normally, and is very important that you have **people to look after you and any dependants** such as children, elderly or disabled relatives you have during your recovery.

**First 2 to 4 days**

- This is the worse time for pain but you will be given painkillers.
- You must rest completely with the foot elevated just above hip level.
- You foot will be in a cast. You should restrict your movements to going to the bathroom only.
- You will be able to stand and take weight (**on your non-operative foot**) using crutches, but you must rest, with your feet up, as much as possible.

**4 days to one week after surgery**

- You will need to attend for your foot to be checked and, if necessary, redressed/re-casted.
- You will need to attend for an x-ray between weeks 1 and 2.
- You should still be restricting your movements, to going to the bathroom only and resting, with your feet up, as much as possible.

**Two weeks after surgery**

- You must attend for removal of stitches. Absorbable stitches will require trimming at the ends.
- At this point, your below knee cast will usually be replaced with a non-weight bearing below ankle cast.
- You can help to keep circulation going by wiggling your toes and making circles with your ankle.
- You will need to attend for another x-ray before your 6-8 week review appointment.
• You should still be restricting your movements, to going to the bathroom only and resting, with your feet up, as much as possible.

**Eight weeks after surgery**

• You will need to attend clinic for removal of your cast.
• You may be permitted to return to semi-rigid supportive footwear, such as a running trainer or walking boot. Alternatively, you may be fitted with a removable walking cast. You will be advised as appropriate.
• Your leg will feel weak to start with as it has been in a cast. You will be given instructions about rehabilitation exercises, or may be referred to a physiotherapist.
• The foot will still be swollen and twinges of discomfort are common as you gradually increase your activity.
• You may return to work, but may need longer if you have an active job.
• You may return to driving if you can perform an emergency stop. You must check with your insurance company before driving again.

**Twelve to sixteen weeks after surgery**

• You may need to attend clinic.
• You may transition out of your walking cast into a running trainer or walking boot (if you are not already in one at this point).
• The foot should continue to improve and begin to feel more normal.
• You will still have some residual swelling and infrequent discomfort.
• Sport can be considered depending on your recovery.
Six months after surgery

- You will have a final review between 3 to 6 months following surgery.
- The swelling should now be slight. Any on-going discomfort should be infrequent.
- You should be able to undertake the majority of your former activities.
- Any residual swelling or discomfort should continue to improve until 12 months postoperatively.

Twelve months after surgery

- The foot has stopped improving with all healing complete.

Please note: If a complication arises, recovery may be delayed.