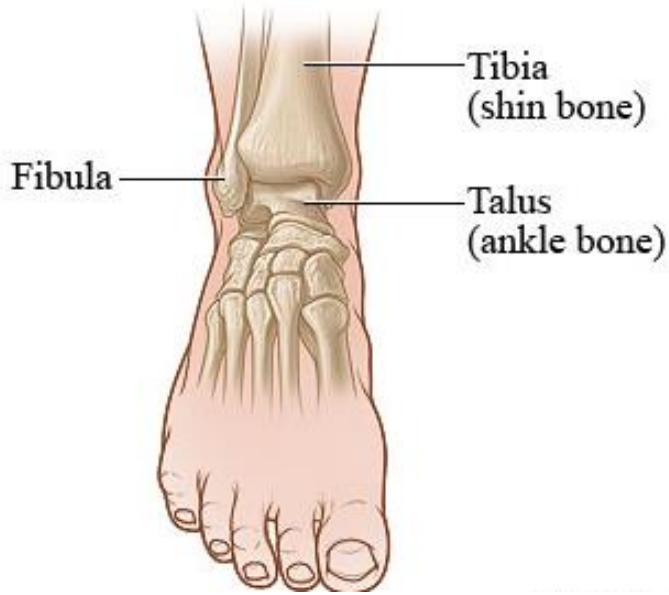
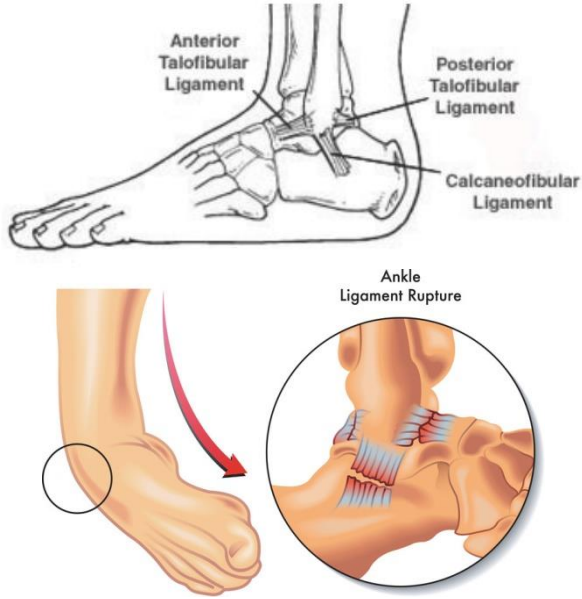
Ankle Instability

A patient's guide



What are the ligaments of the ankle?

The ankle joint is a hinge between the leg and the foot. The bones of the leg (tibia and fibula) form a sort of slot and the ankle bone (talus) fits between them. The talus is held to the tibia and fibula by strong bands of tissue called ligaments. There are numerous ligaments on each side of the joint which helps keep the ankle stable.



Injuries to the ankle may sprain (partially tear) or completely tear the ligaments of the ankle. Occasionally small pieces of bone may be torn off with the ligaments. In a few cases, a twisting force on the ankle may cause other damage. The bones around the ankle may be broken, a piece of the joint surface inside the ankle may be

chipped off, ligaments connecting other bones in the foot may be sprained or torn, or the tendons around the ankle may be damaged.

What are the symptoms of ankle instability?

Most ankle injuries get better completely and cause no long-term problems.Most importantly, an ankle ligament injury can also damage the small nerve endings in the joint and ligaments. These endings are very important; as they tell your brain where your ankle is and what position it is in (they are called "proprioceptive nerves"). Your brain relies on this information to control the muscles which move and protect your ankle. If these nerve endings are not working properly, your brain does not get reliable information and the muscles around your ankle may not work together properly. You would feel this as a tendency for your ankle to "give way", often with minor stresses. This might make you prone to repeated ankle sprains. This is usually managed with physiotherapy and can take up to 6 months for this to recover.

Sometimes, however, there is some permanent damage to the ankle. The ligaments may fail to heal properly and become weak, or there may be damage to the joint itself or some other structure nearby. This may result in repeated episodes of giving way. Sometimes patients “don’t trust the ankle” and feel unstable or anxious when doing sports and activities.

How would ankle instability be diagnosed?

Ankle injuries are diagnosed by medical history and clinical examination. An X-ray may be able to show fractures and chip

fractures. MRI or ultrasound scan may be helpful in looking at the ankle ligaments more closely, as well as the cartilage layer in the ankle joint.

What are the treatment options?

Ankle injuries are initially treated non-operatively with Rest, Ice, Compression and Elevation (RICE). A course of physiotherapy may be helpful to 'reprogram' the proprioceptive nerve fibres which have been damaged. It will also help address stiffness and strengthen the surrounding muscles which help with keeping the ankle stable.

Ankle braces and/or insoles are often helpful in giving extra support and stability during sports and activities. Ankle boots should also be considered.

Activity modification may help reduce the symptoms of instability. Sports and activities which rely on running on uneven surfaces may worsen the symptoms of instability.

As most ankle injuries recover without surgery, often a trial of non-operative treatment is required before considering surgery (usually 3-6 months or sometimes longer)

If, despite non-operative treatment, there are ongoing and disabling symptoms of instability or giving way or excessive damage to the ankle, then surgery may be an option.

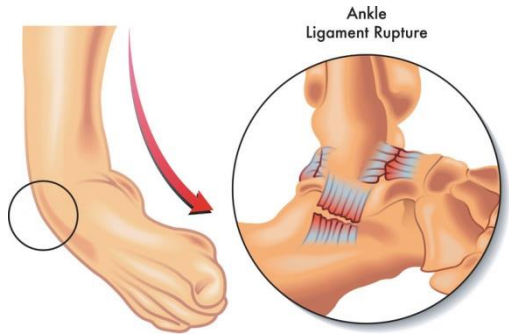
What are the benefits of surgery?

The surgery is successful in approximately over 90% of cases. The aim of surgery is to relieve pain and help provide a stable ankle and reducing the ankle giving way. There may still be some limitations in the sporting activities thereafter.

Summary of surgery.

The surgery is usually performed as a day case. It is usually performed under a general anaesthetic. Local anaethetic is often given after the surgery to help with pain relief. There are two main types of operation:

Anatomical repair - The damaged ligaments are tightened up and re-attached to the bone - often known as the Brostrum procedure. This is suitable when the instability is not too severe. Its main advantage is that it causes less stiffness than the other type of repair, as it aims to achieve an anatomical repair of the ligaments.



Non-anatomical repair - another piece of tissue, usually part of one of the nearby tendons, is borrowed and stitched between the bones where the ligaments should be. This is suitable when the

instability is severe or you may put severe stresses on the repair. It is very strong but often causes quite a lot of stiffness in the ankle afterwards.

After your surgery

Your leg will be in a partial cast. You will need to be non-weightbearing for a few weeks, and therefore require crutches.The physiotherapist will show you how to use crutches. You should keep your foot elevated on a chair/pillow and take regular painkillers.

What are the risks with surgery?

The general risks with surgery include

- Bleeding – rarely may there be bleeding with results in a collection of blood under the wound. Bruising is common after this procedure
- Swelling – common after surgery and can take many months to eventually settle down. Elevation is key to reducing this.
- Stiffness – exercises are important to reduce the stiffness after surgery. However there may always be an element of stiffness in the ankle due to the nature of the operation.
- Infection – infections can be treated with antibiotics. Deeper infections which are much rarer may require further surgery.
- Nerve injury – this may cause some numbness in the ankle/foot. In few cases the nerve can get caught up in the repair/wound and become very painful. This may need prolonged treatment

- Scarring – some scars can be prominent or dark in colour. This usually fades with time.
- Clots in leg/lung – your risk of clots will be assessed prior to surgery and appropriate treatment/advice will be given.

The specific risks to this surgery include

- Ongoing pain – despite surgery, some patients may still have symptoms of pain and swelling. Further surgery may be recommended in some cases.
- Ongoing instability – in some cases, especially in patients who are hypermobile/'double jointed' the ankle may still feel unstable despite surgery.
- Ligament detachment/rupture – this may need a further operation to repair.
- Chronic regional pain – This is excessive pain after surgery and is a very rare complication.

Advice after surgery

The foot should be strictly elevated for the first 2 weeks to avoid excessive swelling which could compromise the wound. Aim to keep the foot elevated for 55 minutes of every hour

The dressings should not be disturbed unless there is a concern with the wound. At around 2 weeks after surgery, you will return to the clinic to have the cast and stitches removed and a new cast applied

You may shower after the stitches have been removed and the wound is fully healed. Keep the wound and surrounding area dry and clean.

You will have a period of non-weightbearing and protected weightbearing in a cast or walking boot. You may need crutches. The physiotherapist will show you how to use them. The exact times will be discussed with you by your surgeon, but generally you will have either a cast and/or walking boot for a period of 4-6 weeks.

It may take several weeks before you can drive. Please check with your insurer.

Going back to work depends on the activity undertaken at work and should be discussed with your surgeon.

There is often a lengthy recovery process following surgery. Physiotherapy is essential after surgery. It may take several months before swellingsubsides. Return to recreational walking and light activities can take up to 3-6 months. Return to more intensive sports can take between 9 months to one year.Often a full recovery takes much longer than one would expect – up to 18 months.This is a normal recovery. If you are slower than these times do not panic, they are only averages, but let your surgeon know when you attend clinic.

If I have any questions or concerns?

These guidelines are to help you understand your operation. This level of detail may cause concern, anxiety, or uncertainty. Please let your doctor or nurse know so that we may address these issues.

We aim to see you back in the clinic at regular intervals to monitor your progress and answer any questions you may have during your recovery.

If there is concern regarding the wound, such as increased redness, pus, discharge, or pain, then seek medical attention either at your GP or nearest Emergency department.

Above all else, please do not proceed with surgery unless you are satisfied and understand all you want to know about the operation.

Further information

There are a number of places that you can look at for further information. These days commonest and easiest way is to look in the internet. You can also ask your surgeon or General Practitioner. Below are a few web sites that you may find useful.

https://www.bofas.org.uk/patient/patient-information

Edmund Ieong
Consultant Orthopaedic Foot and Ankle Surgeon
www.hertfordshirefootandankle.co.uk
info@hertfordshirefootandankle.co.uk