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Patient Information: Ankle Fracture

This leaflet will provide you with information regarding the diagnosis and treatment of ankle fractures and it will provide information about exercises once a cast is removed.

A fracture is the same as a break. The ankle is a joint involving a bone in the foot (talus) and the two long bones of the lower legs (tibia and fibula).

Ankle fractures are common injuries. An ankle fracture is a break of one or more of these bones. There may be ligaments damaged as well. The usual cause of an ankle fracture is an injury caused by a fall, twist or a direct impact.

How will I know I have fractured/broken my Ankle?

The injuries may not be obvious and every ankle injury should be evaluated by a clinician.

The common symptoms following an ankle fracture are:

- Pain straight after an injury
- Swelling, mostly over the injured area
- Bruising
- Inability to weight bear
- Deformity – the ankle may look out of place

What treatment will I receive?

You will be seen by a doctor or nurse in the Emergency Department, who will examine your ankle and order an X-ray to confirm that there is a break. The subsequent treatment will depend on the type of fracture, number of bones broken, if the fracture is out of place or not and your general condition.

If your ankle is out of place, then it will need realigning by a reduction procedure. In general, there are two types of treatment: conservative (non-operative) management and surgery (operative).

Conservative management

If the fracture is stable and is aligned in its original position, you may be treated with a plaster cast below the knee or simply with a special walking boot or ankle brace. You may be asked to avoid weight bearing or advice to full weight bear on the injured foot depending on the type of fracture. You may need crutches or a walking frame for walking around with.

The duration of the plaster or boot or brace will depend on how well your bones heal but usually is for a period of 6 weeks.

Surgery

If the fracture is unstable or out of position, surgery may be required to fix the bones together with plates and screws. The doctor will explain this to you in detail. Sometimes the operation may be delayed to allow the swelling to subside (it may take sometimes a week). If so, you should keep your injured leg elevated to help reducing the swelling.

Your lower leg will be in a plaster after surgery. You may be able to go home on the day of surgery, sometimes you will need to be in hospital for a few days.

Preparing for surgery

Prior to the surgery, the doctor may manipulate your injured ankle under anaesthesia to put it into a better alignment. This will help to reduce the swelling and pain, and most importantly decrease the likelihood of future complications.

Your injured leg will be elevated and ice may be applied to reduce the pain and swelling.

The anaesthetist will talk to you about your anaesthetic during the operation and the doctor will explain the surgery to you.

Possible risks/complications of surgery

Common but minor risks can include:

Pain – This can be worse in the first few days after surgery but responds to the prescribed painkillers. As time passes and your body starts to heal, this pain will reduce and you will only need simple painkillers (like anti-inflammatories or Paracetamol) until the pain settles completely.

Swelling – Operated feet tend to swell and this can last for several months.

Infection – as with all invasive procedures there is the risk of infection, more so in those patients who are diabetic, suffer from rheumatoid disorders or smoke.

Scarring – any type of surgery will leave a scar, occasionally this will be painful and inflamed.

Blood or fluid leaking from the wound – This is common and usually stops after a day or so.

Bruising or discolouration – This is almost inevitable after surgery. However, if you get a lot of bleeding, a white toe or a black toe, let the team know.

Minor redness around the wound – as with all surgery there is the risk of infection and some minor redness of the wound can happen and the wound edges take longer to heal fully.

You may need antibiotics to get this to settle.

Risks are higher if you are diabetic, suffer from a rheumatoid condition or smoke.

Prominent metal work – In some cases the screws or plates (if used during your operation) can become prominent under the skin and you will need to have them removed at a later date.

Numbness – After surgery you are likely to have some minor numbness and tingling around the scar due to damage to small nerves.

Less common but more significant risks:

Failure of the bone to unite – this may occur in operations where the bone is fused. Some people heal slower than others and those who smoke are at a greater risk of this occurring.

The surgeon may decide not to perform surgery unless you refrain from smoking.

Deep Infection – Although the operation is performed under sterile conditions and all precautions are taken to prevent this, a deep infection may happen and if the wound does not settle on antibiotics, you may need further operations.

Blood Clots – because you won't be able to move around as much after surgery, you can get blood clots in

the veins (deep vein thrombosis or DVT) which can lead to pain and swelling of the calf or thigh. In very rare cases these blood clots can travel to your chest (pulmonary embolism) and can be fatal. Your surgical team will probably discuss whether you should have thromboprophylaxis (drugs to reduce, but do not completely eliminate the risks of blood clots).

Thick (keloid) scar – Scars which grow excessively can occur in some people and cannot be predicted although you are at greater risk if you have previously keloid scar. Special dressings, injections into the scar or rarely surgery may become necessary to improve the appearance.

Delayed healing of the bone – This may happen if your bone is cut or fused. Some people heal slower than others and those who smoke are at a greater risk of this happening. If the bones don't seem to be knitting together, you may have to take weight off the area for longer or need more surgery.

Bone healing in a wrong position – This can sometimes happen and you need more surgery.

Persistent or recurrent symptoms – In some cases, you may continue to suffer pain and the foot may be deformed.

You may need surgery or other measures.

Broken bone or metalwork – A bone could fracture or a metal pin or screw could break during or after surgery and you may need another operation.

Developing secondary problems – This can include overloading areas close to the ones operated on. In other words, surgery on your big toe may lead to pain transferring to the second toe or unusually, an overcorrected bunion may lead to a reverse deformity. A fused ankle joint can cause an overload of the surrounding hind foot joints and cause pain. Surgery to the newly affected areas may be needed.

Chronic pain – This is rare but a syndrome (such as chronic regional pain syndrome CRPS) can cause swelling, stiffness, pain and colour and temperature changes to the foot. Treatment includes medication and physiotherapy and it could take several months to improve. Doctors are still not sure exactly what causes this syndrome.

Damage to the blood vessels – If the blood supply to part of the foot is damaged, it could lead to an area of permanent damage which needs surgery, but this is rare.

Nerve injury – If a larger nerve supplying the foot becomes damaged or caught in scar tissue, it could lead to on-going pain, numbness and tingling. This damage often doesn't last and the sensation usually returns over a period of time. However, in some cases it can be long-lasting or permanent and need further surgery.

Amputation – In very rare cases, part of the foot or lower leg may need to be removed if there is severe infection or blood-vessel damage or uncontrolled pain.

Death – This also is extremely rare for foot and ankle surgery but can happen if you have other medical conditions such as heart problems.

Anaesthetic complications – your anaesthetist will be able to discuss the possible complications

For ward admissions prior to discharge
You will be assessed by the physiotherapist and possibly occupational therapist prior to discharge. The physiotherapists will check that you can safely mobilize

with crutches and if required a stair assessment. They will give you advice to guide you through rehabilitation and help you work on walking normally again.

The occupational therapist will check if you need any adaptations at home to ensure your safety.

Your follow up appointment will normally be at 2 weeks from the date of the operation. If you need a sick note please let us know.

How long will my ankle take to recover?

Your recovery will depend on the type of fracture, the method of treatment and your general well-being. The bones may take longer to heal if you are a smoker or suffer from diabetes.

It usually takes six to eight weeks for broken bones to heal, but up to a year before you regain good movement and strength of your lower leg and foot.

The doctor may arrange additional X-rays to see how well the bones are healing.

You should follow the doctor's advice on when you can start putting weight on your injured leg.

What should I expect when my cast is taken off?

You may experience the following symptoms after the cast is removed:

- Pain or discomfort
- Stiffness
- Decreased ankle strength
- Swelling
- Loss of muscle bulk

It is common to experience any of these symptoms when your plaster cast is initially removed because your ankle has been still for a number of weeks.

If your ankle is swollen, you should try the following to minimise the swelling:

- Sit with your leg up to elevate your foot
- In bed, rest your foot on a few pillows so that it lies above the level of your heart
- Ice may be used to reduce swelling and pain.

To optimise your recovery, you should start the exercises indicated in this leaflet as soon as the cast is removed. You may be given an appointment to see the physiotherapist to progress you.

When should I go back to hospital?

You should contact the hospital immediately if you develop any of the following symptoms:

- Extreme pain, swelling and tenderness in one of your legs, calves or thighs
- Numbness or pins and needles in your toes
- The skin around your ankle or foot turns blue or becomes very cold
- Foul smelling discharge from the wound
- Pain, greater than expected and not eased off with pain-killers
- Your foot, toes or leg swell significantly

What to expect?

Your ankle's movement and strength will improve over several months. It is important to carry on with these exercises. It is normal to feel some discomfort when moving your ankle initially, but this should reduce with time. Mild discomfort during exercise is normal and acceptable as long as it settles throughout the day. You should not drive until you regain good ankle movement. You can return to work once you feel you can carry out your normal job duties.