

# Ankle and Foot Fractures



*Fractures of the ankle and foot can be very debilitating injuries. Fractures may occur alone or in combination with ligament and tendon injuries. Fractures that involve a joint carry a higher risk of long term problems. Some fractures may be treated without surgery. Those that are unstable, greatly displaced or involving a joint may require surgery for a better outcome.*

## What Happens After An Ankle or Foot Fracture?

There are numerous problems associated with and caused by fractures of the ankle and/or foot. These may include arthritis, deformity, damage to surrounding tendons and/or ligaments. Any of these may lead chronic pain and dysfunction.

### Treatment of Ankle and Foot Fractures

Depending on the location and severity of the fracture, non-surgical treatment may be possible. This usually involves immobilization in a cast or boot for 6-12 weeks. You may be able to place weight on the foot during this time, but crutches or a knee scooter may be needed to keep weight off the foot. Physical therapy is very common following these injuries. However, surgery may be required.

## Surgery: General Facts

Surgery may be required to place the bone(s) into the proper position and to hold them in place while they heal. In certain cases such as open (compound) fractures, emergency surgery may be indicated. If surgery is undertaken, different types of hardware will be utilized to meet the goals of proper alignment with adequate fracture healing in the most efficient amount of time. This hardware may be internal including screws, plates and/or pins. Some cases require hardware on outside (external fixation) of the body.

Some fractures are so devastating that even surgery can't guarantee a good outcome. When a joint is involved, arthritis may be unavoidable and may lead to future pain, dysfunction and in some cases further surgery (joint fusion or replacement).

## General Recovery Facts

- There will be a hard posterior splint to the leg for two weeks after surgery.
- In order to stay off your cast / boot, you will need to use crutches, a knee scooter, walker or wheelchair.
- Your first follow up visit will be at approximately 5-7 days following surgery.
- The stitches are usually removed at about 2 weeks following surgery.
- We will move you into a removeable boot as soon as possible, But some require a cast for a total of 6-12 weeks following surgery.
- You will not be allowed to take weight through the operated foot until 6-8 weeks after surgery and then only partial body weight (still using crutches) until 12 weeks from surgery - but during this period you can be fairly mobile with crutches or a walker device.
- If you're in a removeable boot, you should remove the boot for twenty minutes three times a day to exercise.
- You may begin to walk without the boot at about 10 weeks, depending on your level of discomfort.
- You should plan to use a Physiotherapist for about 1-2 months.
- Physical therapy is essential to regain strength, range of motion, balance and a more normal walking pattern.
- There will be moderate swelling of the ankle and leg for about 6-9 months.
- Stiffness may be a common complaint after fractures involving a joint. There may be soreness and stiffness for up to 12 months following surgery. However, this may not go away.

## Ankle and Foot Fractures

### Main Risks of Surgery

**Swelling** - initially the foot will be very swollen and need elevating. The swelling will disperse over the following weeks and months but will remain evident for up to 6-12 months.

**Infection** - The risk of deep infection occurring is approximately 1%. You will be given intravenous antibiotics to help prevent this. It is important to keep the foot elevated over the first 10-14 days to reduce the swelling and risk of infection. If there is an infection, it may resolve with a course of antibiotics but may result in failure of the fusion.

**Mal position** - ideally, the fractures are placed into an ideal position. However due to the severity of the fracture, the position may be less than ideal. We take great efforts to judge the best position at surgery, but as you are asleep and lying down, it is not always possible to achieve this 'best' position. If the position is not optimal following surgery, this can usually be accommodated by custom insoles and footwear. Sometimes surgery required.

**Non-union** - this is possible that the bones may not heal. Sometimes it takes 6-12 months to fully appreciate this. Smoking, chronic illnesses, dietary deficiencies and certain medications increase this risk. If a non-union does occur and is painful, then further surgery is usually needed. If the position is not optimal following surgery, this can usually be accommodated by custom insoles and footwear. Sometimes surgery required.

**Nerve damage** - the ankle and foot have many nerves that supply sensation. They may be damaged during the injury or surgery and this may leave a patch of numbness and sometimes pain. This may be temporary or permanent.

**CRPS** - This stands for complex regional pain syndrome. It occurs rarely (1%) in a severe form and is not properly understood. It is thought to be inflammation of the nerves in the foot and it can also follow an injury. We do not know why it occurs. It causes swelling, sensitivity of the skin, stiffness and pain. It is treatable but in its more severe form can take many months to recover.

**Deep Vein Thrombosis (DVT)** - This is a clot of blood in the deep veins of the leg. The risk of a clot occurring is reported as less than 1% after foot and ankle surgery which is generally substantially lower than after hip or knee surgery. Suspicion of DVT is raised if the leg becomes very swollen and painful. There are tests that can be performed to confirm / exclude the presence of a DVT. If confirmed, you will probably require treatment with a blood thinning agent (heparin preparation and / or warfarin). The main concern with regards a DVT is that rarely (<1:1000 chance with foot and ankle surgery) a piece of clot can break away in the leg and travel to the lungs which is much more serious and can be life-threatening. This is called a pulmonary embolus and signs of this include chest pain and shortness of breath. While in hospital following surgery it is likely that you will be treated with a blood thinning agent (LMWH - low molecular weight heparin injections) to minimize the risk of DVT/PE but this does not afford total protection and exercises to keep the toes and knee moving are advised, as well as remaining generally mobile. You are also likely to be fitted for a compression stocking to be worn on the unoperated leg after surgery. If you are concerned that the leg has become more swollen and painful (some swelling always occurs after surgery), or if you experience chest pain/shortness of breath, then you should contact the clinic immediately.

These notes are intended as a guide and some of the details may vary according to your individual surgery or because of special instructions from your surgeon.