

## **Lateral ligament reconstruction of the ankle**

Following your examination and investigations you are considering lateral ligament reconstruction of the ankle. This section aims to give you additional information about your condition and the treatment. It is designed to give you some general details about the recovery from surgery if necessary and the common risks and complications. This section is not for self-diagnosis. Please ask your surgeon if you have any further questions.

### **What is it?**

The ankle is made up of strong ligaments on either side of the ankle, which allow the joint to move up and down, and side to side. The lateral ligament has three bands connecting the fibula (the bone on the outside of the ankle) to the talus (the ankle bone) and heel bone. Lateral ligament reconstruction is an operation to done to repair stretched or torn the ligaments of the ankle. This is caused by the twisting of the ankle joint otherwise known as a sprained ankle, in which the ligaments can become stretched or torn.

### **Why would they be done?**

Most sprained ankles are able to heal on their own, however some patients require lateral ligament reconstruction. Lateral ligament reconstruction is performed either because the ankle ligaments don't heal properly or are too lax once healed, thus the ligaments are no longer tight or stable enough. If the ankle is unstable and gives way on uneven ground or when changing direction quickly, surgery may be recommended if stretches and physiotherapy have not helped. The choice of surgery depends on the type and severity of the problem.

There are two types of ankle ligament surgeries:

1. A **Brostrom surgery** is performed when a stretched ligament has healed in a lengthened position.
2. A **tendon reconstruction surgery** is performed to treat damaged or torn tendons in the ankle.

### **What does each operation involve?**

Depending on the type and severity of the problem you will either be recommended to have Brostrom surgery or tendon reconstruction surgery performed.

- **Brostrom surgery**

A cut is made on the outside of the ankle so that the stretched ligament can be cut shorter and stitched together again under tension, to tighten the ligament. A thick band of tissue, known as the 'extensor retinaculum' is then stitched over the top of the ligament to reinforce it. The skin is closed and a plaster is applied to the leg.

- **Tendon reconstruction surgery**

A cut is made on the outside of the ankle to get access to where the 'peroneal tendons' are situated. A small portion of the tendon is then used as a tendon-graft in which it acts as a material to re-join the torn or damaged part of the tendon. The tendon-graft is then attached using small drill holes from the ankle bone to the heel bone. The skin is then closed and a plaster is applied to the leg.

### **Can it be performed as a day-case operation?**

If you are medically fit, have someone who can collect you and look after you after the operation and you are comfortable afterwards, the operation can be done on a day-case basis. If you have other medical problems such as diabetes, asthma or high blood pressure, you may have to attend a preoperative assessment before your surgery. You must stay overnight in case of complications if there is no one to collect and look after you. The most common reason for having to stay overnight after a lateral ligament reconstruction is for pain control, as the operation involves cutting through a ligament or tendon, thus it may be quite painful immediately afterward. Local anaesthetic injections can help with this. Because tendons and ligaments hold the ankle joint in position and stabilise walking, it is important to allow time for healing.

### **Will I have to go to sleep (general anaesthetic)?**

The operation can be done under general anaesthetic (asleep). Alternatively, an injection in the back, leg or around the area can be given to make the area numb while you remain awake. Local anaesthetic injections do not always work and, in that case, you may have to go to sleep if the operation is to be performed. Your anaesthetist will advise you about the best choice of anaesthetic for you. In addition, local anaesthetic may be injected into your leg or foot while you are asleep to reduce the pain after the operation even if you go to sleep for the surgery. You will also be given painkilling tablets as required.

### **Will I have a plaster on afterwards?**

Plaster is often required for both Brostrom surgery and tendon reconstruction surgery. A plaster splint down the back of your ankle and under your foot will be applied while you are asleep. This is only a half plaster to allow for swelling. At your follow-up 10-14 days after the surgery a complete plaster from your knee to your toes will be applied. You may be able to put a little bit of weight through this plaster but you will be advised by your surgeon.

### **What will happen afterwards?**

You can go home when comfortable and safe. You will usually be seen again 11-14 days after your operation. The splint will be removed and the wound inspected. A complete cast from below your knee to your toes will be applied.

4 weeks after your surgery the cast will be removed and an ankle brace will be applied to your ankle which allows your ankle to move up and down, but not side to side. You can walk with your full weight on this. Physiotherapy will be arranged to start your rehabilitations and strengthening your ankle again.

### **Ankle brace**

An ankle brace is worn at all times between 6 and 8 weeks after removal of the cast. You can arrange to return if you are having any problems, or have any concerns.

### **How soon can I ...**

#### **Walk on the foot?**

You can walk on the foot immediately after surgery. For the first 2 weeks, you should avoid walking too much. When not walking, **rest with your foot elevated to reduce swelling**. It may be impossible to wear an ordinary shoe because of the dressings or plaster, so you will be provided with a special shoe if necessary.

#### **Go back to work?**

If your ankle is comfortable and you can work in the cast with your foot elevated most of the time (basically, in a desk job), you could go back to work within 2-3 weeks of surgery. In a manual job with a lot of dirt or dust around, you may need to take anything up to 2 months off work. How long you are away from work will depend on where your job fits between these two extremes and which type of ankle ligament operation you have had.

#### **Drive?**

Most people prefer not to drive until the brace is off, they can wear a shoe and are able to fully weight bear. Drive short distances before long ones. If you cannot safely make an emergency stop your insurance will not cover you in the event of an accident. If only your left foot is operated on and you have an automatic car, once your foot is comfortable enough and you can bear weight on it, you can drive within a few weeks of the operation.

### **Play sport?**

Once you are into your ankle brace you can gradually increase your level of activity under the guidance of your physiotherapist. Once you can walk comfortably you can start running, swimming and cycling, increasing the distance covered gradually. Once you can run comfortably, you can do some turning and jumping. As this recovers you can go back to low-impact, non-contact sports and finally to full contact sports. It is common to take 6-8 months to return to sports such as football or rugby.

### **Risks**

The Bromstrom repair may be:

Too tight. The ankle feels stiff and may not recover full flexibility. Over a period of years this can loosen off but does not always do so.

Too loose. The ankle still feels lax and gives way. Most people find it better but not perfect, whilst a few need repeat surgery.

The ankle may continue to give way even with a good repair which is not loose. This is because the small nerve endings in the ankle are not working well, the peroneal muscles have not recovered their strength or the achilles tendon is tight.

Physiotherapy usually improves this, but a few people keep wearing an ankle brace.

The tendon reconstruction surgery risks:

The joint may be too tight. The ankle feels stiff and may not recover full flexibility. Over a period of years this can loosen off but does not always do so.

Scar tissue may form and prevent the joints from moving smoothly.

Tearing of the tendon may re-occur.

In a few cases the wound is slow to heal or develops a minor infection. This usually settles with dressings and/or antibiotics. Some bleeding and bruising is not uncommon.

The nerves to the top and outer side of the foot run close to the ankle where the operation is done. In about 1 in 10 people, they are stretched or small nerve branches are cut. This produces a numb, sometimes tingly, occasionally painful, area over the top or outer side of the foot. In many people this gets better over the course of 6-8 weeks, but in about 1 in 2 of those affected it does not get better.

There are general risks with any operation that include blood clots (DVT & PE), anaesthetic complications and tourniquet complications. Generalised pain, swelling and stiffness can occur in the foot after any operation or injury (chronic regional pain syndrome — CRPS).

### **What can I do to help?**

Most patients find that simple measures can make a **big difference** to the outcome of surgery. The evidence from studies and our experience supports this: Take simple Vitamin C and vitamin D tablets or multivitamins – needed for healing. **STOP** smoking – smoking slows down healing and is linked to increased complications. Keep fit and a **healthy weight** – many foot problems are improved by losing weight.