

## **Patient Information**

### **Osteotomy of the Knee**

#### **What is an Osteotomy of the knee?**

An Osteotomy is a surgical procedure performed around the knee joint to help relieve pain and improve function in patients with early osteoarthritis (wear and tear). It involves cutting either the tibia (shin bone) or the femur (thighbone) and realigning this to help relieve pressure in the painful arthritic part of the knee joint.

#### **Why is an Osteotomy needed?**

Osteotomy of the knee is indicated in younger more active patients whose arthritis is at an early stage and in only one part of the knee joint. Osteoarthritis can develop when the bones of your knee and leg do not align properly putting added stress onto the joint surface causing wear and tear. Realigning your knee and leg will shift your weight off the damaged side of the knee helping to relieve pain, improve your function and delay further progression of the arthritis.

#### **What are the advantages of an Osteotomy?**

Osteotomy aims at relieving pain and preserving your own knee joint delaying the need for a knee joint replacement for some years. It can allow a younger patient to lead a more active lifestyle for many years. Following recovery you will be permitted to return to your full activities even impact sports. Around 80% - 90% of patients feel an improvement in their knee following an Osteotomy. In the future if your arthritis has progressed you can still have a knee replacement.

#### **What does the surgery involve?**

You will have long leg alignment x-rays performed to help your surgeon plan surgery accurately. During the operation accurate surgical cuts are made in either the tibia (shin bone) or femur (thigh bone) to achieve the planned correction of your leg alignment. The corrected bone is held firmly in place with a metal plate and screws.

An arthroscopy (keyhole surgery) may be performed at the same time as the osteotomy to fully assess the arthritis within the knee and allow the surgeon to trim torn meniscus cartilage or treat articular (joint surface) cartilage damage.

#### **What are the risks of surgery?**

A risk of complications is present with any surgery. Some of the possible complications are listed below:

- **Infection** - Infection can occur with any operation. Special precautions are taken to reduce this risk. The infection risk is low, less than 1 in 100 (1%), and can usually be treated with antibiotics. In some cases it may be necessary to perform further surgery.
- **Blood Clots** - Blood clots are rare particularly if you mobilise early as instructed by the physiotherapists. A blood clot if left untreated can become serious.
- **Stiffness** - Post operative stiffness of the knee joint is rare. Some patients may struggle to regain the ability to fully straighten the knee. Usually physiotherapy reduces the risk.
- **Delayed Healing** - Sometimes the two bone edges do not heal together as planned – known as delayed union. This usually requires a further operation. Smoking significantly impairs bone healing as can anti-inflammatory tablets, and some surgeons will avoid these after surgery until the bones have healed.
- **Failure** - It is unusual to see little or no improvement and exceptionally rare to be made worse by your surgery. Failure to relieve some or all of your symptoms can occur although you can continue to see improvement in your symptoms for up to 18 months.
- **Nerve damage** - Nerve damage is rare but you may feel a loss of sensation to touch surrounding your scars or the front of your knee.
- **Bleeding** - Bleeding is rare, but some bruising may still occur. If a collection of blood results (haematoma), it may need to be drained. Rarely damage can occur to blood vessels behind the knee; this can lead to loss of circulation to the lower leg and foot, which may require further surgery.
- **Complications of Anaesthesia** - The surgery is often completed with a general anaesthetic. The risks are rare and can be dependent upon your health levels. Your anaesthetist will discuss with you the possible complications.

### **How long will I need to stay in Hospital?**

Osteotomy surgery will require you to have a period of time in hospital most people stay in hospital for one night. You will be discharge home when you are safe to do so.

### **What happens after the operation?**

You will have a bandage on that can be removed the next day, it is important to keep the wound dry to reduce the risk of infection. You will be encouraged to mobilise early and taught to use crutches which will be required for up to 6-8 weeks. Most patients begin to put some or even full weight through the leg straight away, but usually you can fully weight bear by 2-3 weeks. Before you go home the physiotherapist on the ward will give you advice and exercises to complete, to maximise your recovery from the operation. You will be referred to the Physiotherapy department who will be able to guide you in what to do to maximise recovery and improvements following surgery. Regaining movement and muscle strength will help your knee into the long term.

- **Returning to work** – when you can return to work depends on your job. If you have a desk based job you can return to work when your pain allows and you can travel back and forth to work safely this can take up to six weeks. If you have a manual job you are likely to need a longer recovery period may be up to 3 months.
- **Driving** – you may return to driving when you have safe control of your car, this can take up to 6 weeks.

**This leaflet has been written to help you understand more about your knee problem. It is not a substitute for professional medical advice and should be used in conjunction with verbal information and treatment given by your doctors, physiotherapists and nurses.**

**“This document is available in Welsh /  
Mae'r ddogfen hon ar gael yn Gymraeg”.**