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Patient Information

Total Knee Replacement

Fracture & Orthopaedic Unit

This leaflet aims to give you information about knee replacement. This is a surgical procedure to replace the knee joint. We have outlined some of the benefits, significant risks and potential complications and alternatives to the operation. We hope that this information will help you in making your decision. Please ask your surgeon about anything you do not fully understand or you wish to be explained in detail.

Why is knee replacement recommended?

Knee replacement is usually done for severe arthritic conditions. The surfaces of the knee joint are no longer smooth. The bone ends are rough and the cartilage lining has worn away. As a result your knee is painful and stiff.

What does the operation entail?

We make a cut down the front of your knee. We then re-shape the end of your thigh bone and the upper end of your shin bone, and replace them with an artificial joint. The artificial knee is made from metal and special plastic. There are many different types of artificial knees. Some are held in place with bone cement, in others bone grows on to the surface of the metal implant. We close the skin with stitches, staples or glue.

What are the benefits of the operation?

The main aim of the operation is to ease the pain in your knee. After the operation you should eventually be able to bend your knee from fully straight to a right angle or more. You will be able to walk further and climb stairs more easily.

Are there any alternatives?

If you leave things as they are, the knee problem will probably get worse. Steroid injections into your knee will not help the pain in the long term. If the pain in your knee interferes with your life and the x-rays show that the joint is severely damaged, then you should have your knee replaced.

What are the significant risks and potential complications of knee replacement?

The vast majority of patients undergoing total knee replacement make an uneventful post operative recovery and achieve excellent pain relief and recovery of mobility. However, as with all major operations, total knee replacement is associated with certain risks. The most significant risks are documented below along with the precautions your surgeon may use to reduce these risks.

The list is not comprehensive and other complications may occur.

1. Venous Thrombosis

The development of blood clots in the leg veins is the most common complication of knee replacement surgery. The majority of such clots cause no symptoms, but they can be associated with the development of pain and swelling of the calf and thigh. In the long term this may be associated with the development of varicose veins. Occasionally part of a blood clot may break off and enter the circulation of the lungs (pulmonary embolus). This is a potentially dangerous situation that occurs in less than 2% of patients. The risk of fatal pulmonary embolism is in the order of 0.5% (1 in 200 total knee replacements).

In order to reduce the risk of blood clots your surgeon may use drugs, elasticised support stockings and pneumatic foot pumps. You will also be encouraged to exercise your legs in bed and walk as soon as possible after the surgery.

2. Infection

The risk of the knee becoming infected at the time of surgery is of the order of 1%, although this may not become apparent for several years. In order to reduce the risk of infection you will be carefully examined to ensure there is no infection elsewhere in the body (e.g. chest, teeth, urinary tract, skin).

You will be given antibiotics before and after surgery and the surgery will be carried out in a clean air enclosure in which the air is filtered to remove bacteria. Special operating suits may also be used.

The risk of infection is increased if you have rheumatoid arthritis, diabetes, are taking steroids or have infection elsewhere at the time of surgery (teeth, bladder, chest, skin). You should inform your surgeon if you suspect that you may have an infection anywhere on your body.

3. Wound Healing

Wound healing can occasionally be a problem after knee replacement surgery and this may delay rehabilitation. Very rarely parts of the skin around the knee may die completely requiring skin grafting or muscle grafting to cover the wound. Patients with poor circulation, diabetes, rheumatoid arthritis and obesity are more prone to this complication.

4. Nerve Damage

Most patients have some numbness around the scar following surgery, this is usually due to unavoidable damage of the small skin nerves during surgery. This may leave a permanent area of altered sensation on the outer aspect of the knee. Damage to the major nerves around the knee during knee replacement is rare. The majority of such injuries are due to bruising or stretching of the nerve and usually fully recover within 6 months. The most common problem following such nerve injuries is numbness over the back of the foot and weakness in pulling the foot upwards.

5. Fractures

Significant fractures of the bones around the knee (the femur and the tibia) are rare, occurring in less than 1% of patients. If such a fracture occurred it would normally be dealt with by your surgeon at the time of surgery. Occasionally, a second operation may be required.

6. Blood Vessel Damage

Damage to the blood vessels around the knee is very rare following total knee replacement. If damage to blood vessels was to occur this would normally be dealt with by your surgeon at the time of the operation.

Because of bleeding during and after surgery, a blood transfusion may be required. In some cases it is possible to collect and reinfuse your own blood to reduce the need for donated blood. Bleeding is more likely if you regularly take blood thinning agents (**Warfarin, Aspirin, Clopidogrel, Ginko Biloba**) and you should inform your surgeon if you are taking any of these drugs.

7. Persistent Pain and Stiffness

A small proportion of patients can be left with persistent pain and stiffness of the knee despite appropriate surgery and post-operative rehabilitation. Your surgeon will attempt to find the source of pain, which may be related to infection, loosening of the implants or knee cap problems, but in a small number of patients (approximately 2% - 4%), no cause for the pain can be found.

Stiffness of the knee occasionally may require a manipulation under anaesthesia within the first few months following the surgery. However, some patients are left with less range of motion than what was expected prior to surgery.

8. Other Medical Problems

As in all major operations, there is a small risk of heart attacks and strokes after total knee replacement. The risk of death from such events is approximately 0.5% (1 in 200 total knee replacements).

If after reading this information you have any questions or anxieties about your planned surgery you should discuss these fully with your surgeon before proceeding.

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