Procedure Information Guide

Total knee replacement

Brought to you in association with EIDO Healthcare and endorsed by the Royal College of Surgeons England.

Discovery has made every effort to ensure that we obtained the information in this brochure from a reputable source. We have adapted the content to reflect the South African market or healthcare environment.

You should not only depend on the information we have provided when you make any decisions about your treatment. The information is meant to act only as a guide to the treatment you are considering having. Please discuss any questions you may have about your treatment with your treating healthcare professional.

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What is arthritis?
Arthritis is a group of conditions that cause damage to one or more joints.

About this document
Your surgeon has recommended a total knee replacement operation (see figure 1). However, it is your decision to go ahead with the operation or not.
We understand this can be a stressful time as you deal with different emotions and sometimes have questions after seeing your surgeon. This document will give you a basic understanding about your operation. We tell you about the things you can do to help make the operation a success. It is also important to remember to tell your surgeon about any medicine you are on so he or she can manage this, if necessary. It will also tell you about what to expect after the operation – while in hospital and in the long term. Your surgeon remains the best person to speak to about any questions or concerns you may have about the operation.

How does arthritis happen?
The most common type of arthritis is osteoarthritis, where there is gradual wear and tear of a joint. For a few people this is a result of a previous injury but usually it happens without a known cause.
Some other types of arthritis are associated with inflammation of the joints that can eventually lead to severe joint damage. The most common inflammatory arthritis is rheumatoid arthritis. Arthritis eventually wears away the normal cartilage covering the surface of the joint and the bone underneath becomes damaged. This causes pain and stiffness in the joint, which can interfere with normal activities.

What are the benefits of surgery?
You should get less pain and be able to walk more easily.

Are there any alternatives to surgery?
Simple painkillers and anti-inflammatory painkillers can help control the pain of arthritis. Supplements to your diet, such as fish oil or glucosamine, may also help relieve your symptoms. Check with your doctor before you take supplements.
Using a walking stick on the opposite side to the affected knee can make walking easier. Wearing an elasticated support on your knee can help it feel stronger.
Regular moderate exercise can help to reduce stiffness in your knee. Physiotherapy may help to strengthen weak muscles.
A steroid injection into your knee joint can sometimes reduce pain and stiffness for several months. You may get side effects if you have injections too often. Your surgeon may recommend injections with special lubricating fluid or plasma.
All these measures become less effective if your arthritis gets worse and this is when your surgeon may recommend a knee replacement.

What will happen if I decide not to have the operation?
Arthritis of your knee usually, though not always, gets worse with time. Arthritis is not life-threatening in itself but it can be disabling. Arthritis symptoms can be worse at some times than others, particularly when the weather is cold.
What does the operation involve?
The healthcare team will carry out a number of checks to make sure you have the operation you came in for and on the correct side. You can help by confirming to your surgeon and the healthcare team your name and the operation you are having.

Various anaesthetic techniques are possible. Your anaesthetist will discuss the options with you and recommend the best form of anaesthesia for you. You may also have injections of local anaesthetic to help with the pain after the operation.

You may be given antibiotics during the operation to reduce the risk of infection. The operation usually takes an hour to 90 minutes.

There are many different types of knee replacement available and your surgeon will discuss with you which sort is best for you. Your surgeon will make a cut on the front of your knee and remove the damaged joint surfaces. They will replace these with an artificial knee joint made of metal, plastic or ceramic, or a combination of these materials.

Your knee replacement is fixed to the bone using acrylic cement or special coatings on your knee replacement that bond directly to the bone. Your surgeon will close your skin with stitches or clips.

What should I do about my medicine?
Let your doctor know about all the medicine you take and follow their advice. This includes all blood-thinning medicine as well as herbal and complementary remedies, dietary supplements, and medicine you can buy over the counter.

What can I do to help make the operation a success?
If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

You can reduce your risk of infection in a surgical wound.

• In the week before the operation, do not shave or wax the area where a cut is likely to be made.
• Try to have a bath or shower either the day before or on the day of the operation.
• Keep warm around the time of the operation. Let the healthcare team know if you feel cold.

What complications can happen?
The healthcare team will try to make the operation as safe as possible but complications can happen. Some of these can be serious and can even cause death (risk: 1 in 300). You should ask your doctor if there is anything you do not understand. Your doctor may be able to tell you what the risk of a complication for you is.

1 Complications of anaesthesia
Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2 General complications of any operation
• Pain. The healthcare team will give you medicine to control the pain and it is important that you take it as you are told so you can move about as advised.
• Bleeding during or after the operation. You may need a blood transfusion (risk: 1 in 2).
• Infection of the surgical site (wound). It is usually safe to shower after two days but you should check with the healthcare team. Keep your wound dry and covered. Let the healthcare team know if you get a high temperature, notice pus in your wound, or if your wound becomes red, sore or painful. An infection usually settles with antibiotics but you may need another operation.
• Unsightly scarring of your skin, although knee-replacement wounds usually heal to a neat scar.
• Blood clot in your leg (deep-vein thrombosis – DVT) (risk: 1 in 11). This can cause pain, swelling or redness in your leg, or the veins near the surface of your leg to appear larger than normal. However, most blood clots are small and settle without causing any problems. The healthcare team will assess your risk. They will encourage you to get out of bed soon after the operation and may give you injections, medicine, or inflatable boots or special stockings to wear. Let the healthcare team know straightaway if you think you might have a DVT.
• Blood clot in your lung (pulmonary embolus), if a blood clot moves through your bloodstream to your lungs (risk: 1 in 200). Let the healthcare team know straightaway if you become short of breath, feel pain in your chest or upper back, or if you cough up blood. If you are at home, call an ambulance or go immediately to your nearest casualty unit.
  • Difficulty passing urine (risk: 2 in 3). You may need a catheter (tube) in your bladder for one to two days.
  • Chest infection. You may need antibiotics and physiotherapy.
  • Heart attack (where part of the heart muscle dies) (risk: 1 in 350). A heart attack can sometimes cause death.
  • Stroke (loss of brain function resulting from an interruption of the blood supply to your brain). A stroke can sometimes cause death.

3 Specific complications of this operation
• Damage to nerves around your knee, leading to weakness, numbness or pain in your leg or foot (risk: 1 in 170).
  • Split in the bone when your knee replacement is inserted, if the bone is weak (risk: 1 in 50). Your surgeon may need to fix the bone, or use a different type of knee replacement.
  • Damage to blood vessels behind your knee, leading to loss of circulation to your leg and foot (risk: 1 in 650). You will need surgery straightaway to restore the blood flow.
  • Damage to ligaments or tendons near your knee (risk: 1 in 60). Your surgeon may need to repair the damage using stitches, a piece of tendon from somewhere else in your body, or an artificial material.
  • Infection in your knee, which can result in loosening and failure of your knee replacement over a period of a few months (risk: 1 in 60). You will usually need one or more further operations to control the infection. If you get any kind of infection, including a dental infection, get it treated straightaway as the infection could spread to your knee.
  • Loosening without infection. You may need another operation to do your knee replacement again (risk: 1 in 40 in the first 10 years).
  • Dislocation of your knee replacement. You will usually need another operation, sometimes as an emergency.
  • Continued discomfort in your knee, even though your knee replacement itself works well.

• Severe pain, stiffness and loss of use of your knee (complex regional pain syndrome). The cause is not known. You may need further treatment including painkillers and physiotherapy. Your knee can take months or years to improve.

How soon will I recover?

• In hospital
After the operation you will be transferred to the recovery area and then to the ward. You will usually have an X-ray to check the position of your knee replacement. The physiotherapist will help you to start walking using crutches or a walking frame, usually the next day. Getting your knee to bend takes hard work. Keep your wound dry for 4 to 5 days, and use a waterproof dressing when you have a bath or shower. The healthcare team will tell you if you need to have any stitches or clips removed, or dressings changed. You should be able to go home after 3 to 7 days. However, your doctor may recommend that you stay a little longer. If you are worried about anything, in hospital or at home, contact the healthcare team. They should be able to reassure you or identify and treat any complications.

• Returning to normal activities
To reduce the risk of a blood clot, make sure you follow carefully the instructions of the healthcare team if you have been given medicine or need to wear special stockings. The healthcare team will tell you when you can return to normal activities. To reduce the risk of problems, it is important to look after your new knee as you are told. You will need to use crutches or walking sticks for a few weeks. If your knee replacement does not bend well, your surgeon may need to manipulate it (risk: 1 in 20). You will need to have an anaesthetic for this. You will often notice a patch of numb skin next to the scar on your knee. This is normal after knee replacement surgery and usually becomes less noticeable with time. Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, ask the healthcare team or your GP for advice.
Do not drive until your doctor tells you that you can.

**The future**
Most people make a good recovery, have less pain, and can move about better. An artificial knee never feels quite the same as a normal knee, and it is important to look after it in the long term. You can expect to be able to bend your knee 90 to 120 degrees. Kneeling down is not recommended and is usually uncomfortable. It is common for your leg to be swollen after a knee replacement. It can take up to a year for the swelling to go down.

A knee replacement can wear out with time. This depends on your body weight and how active you are. Eventually a worn knee replacement will need to be replaced. About 19 in 20 knee replacements will last 10 years. You should have an X-ray of your knee replacement at least every 5 years to check for any problems.

**Summary**
For a few people arthritis of the knee is a result of a previous knee injury or rheumatoid arthritis. It usually happens without a known cause. If you have severe pain, stiffness and disability, a knee replacement should reduce your pain and help you to walk more easily.

Surgery is usually safe and effective but complications can happen. You need to know about them to help you to make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

**Keep this information leaflet. Use it to help you if you need to talk to the healthcare team.**

**Acknowledgements**
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You can access references online at www.aboutmyhealth.org. Use reference OS02.