

OS02 Total Knee Replacement

Expires end of March 2024

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What is arthritis?

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

Your surgeon has suggested a total knee replacement operation. However, it is your decision to go ahead with the operation or not.

This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, it is important that you ask your surgeon or the healthcare team.

Once all your questions have been answered and you feel ready to go ahead with the procedure, you will be asked to sign the informed consent form. This is the final step in the decision-making process. However, you can still change your mind at any point.

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 problem or 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 is rheumatoid arthritis.

Arthritis 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 such as paracetamol and anti-inflammatory painkillers such as ibuprofen can help control the pain of arthritis. 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. If you are overweight, losing weight will help reduce the load on your knee.

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. You should not have a steroid injection within 2 weeks of having a vaccination because it can prevent you from making enough antibodies.

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?

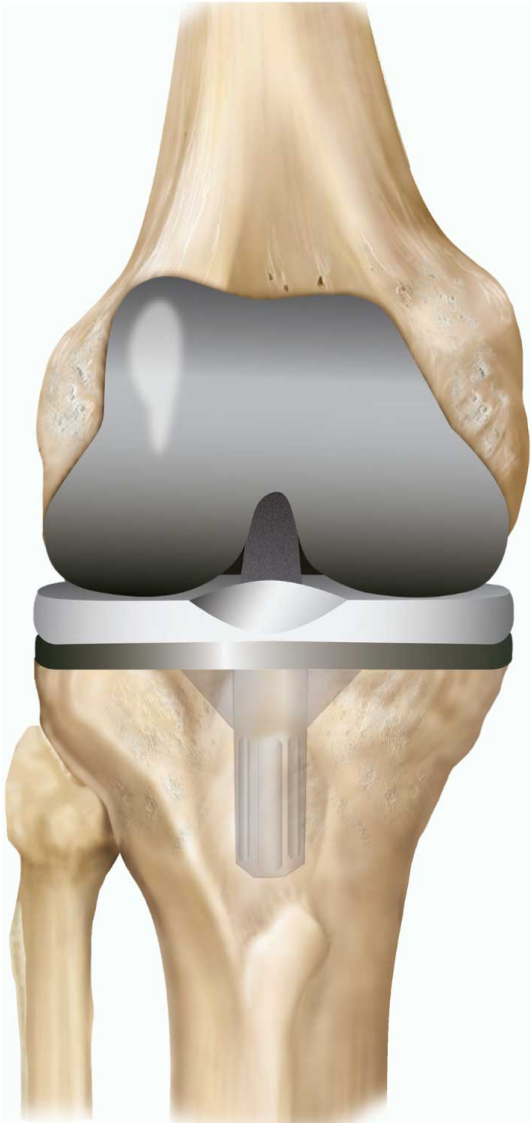
If you are female, the healthcare team may ask you to have a pregnancy test as some procedures involve x-rays or medications that can be harmful to unborn babies. Sometimes the test does not show an early-stage pregnancy so let the healthcare team know if you could be pregnant.

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. 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 the options with you.



A total knee replacement

Your surgeon will make a cut on the front of your knee and remove the damaged joint surfaces. They will insert an artificial knee joint made of metal, plastic or ceramic, or a combination of these materials.

The implant is fixed to the bone using acrylic cement or special coatings that bond directly to the bone.

Your surgeon will close your skin with stitches or clips.

What should I do about my medication?

Make sure your healthcare team knows about all the medication you take and follow their advice. This includes all blood-thinning medication as well as herbal and complementary remedies,

dietary supplements, and medication you can buy over the counter.

How can I prepare myself for the operation?

If you smoke, stopping smoking now 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.
- If you are diabetic, keep your blood sugar levels under control around the time of your procedure.

Speak to the healthcare team about any vaccinations you might need to reduce your risk of serious illness while you recover. When you come into hospital, practise hand washing and wear a face covering when asked.

What complications can happen?

The healthcare team will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had this operation. Your doctor may be able to tell you if the risk of a complication is higher or lower for you. Some risks are higher if you are older, obese, you are a smoker or have other health problems. These health problems include diabetes, heart disease or lung disease.

Some complications can be serious and even cause death (risk: 1 in 300 in the first 3 months).

You should ask your doctor if there is anything you do not understand.

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

General complications of any operation

- Bleeding during or after the operation (risk: 1 in 300). You may need a blood transfusion.
- Infection of the surgical site (wound). It is usually safe to shower after 2 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 special dressings and your wound may take some time to heal. In some cases another operation might be needed. Do not take antibiotics unless you are told you need them.
- Allergic reaction to the equipment, materials or medication. The healthcare team is trained to detect and treat any reactions that might happen. Let your doctor know if you have any allergies or if you have reacted to any medication or tests in the past.
- Acute kidney injury. A large drop in your blood pressure during the operation can damage your kidneys. Other risk factors include kidney disease, diabetes, high blood pressure, obesity and some medications. The healthcare team will monitor your condition closely to reduce the chance of this happening. Any kidney damage is usually short lived although some people may need to spend longer in hospital. A small number can go on to develop chronic kidney disease that may require dialysis.
- Blood clot in your leg (deep-vein thrombosis – DVT) (risk: 1 in 150). 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, medication, or inflatable boots or special stockings to wear. Let the healthcare team know straight away 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 250). Let the healthcare team know straight away 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 Emergency department.
- Difficulty passing urine. You may need a catheter (tube) in your bladder for 1 to 2 days.
- Chest infection (risk: 1 in 75). You may need antibiotics and physiotherapy. Your risk will be lower if you have stopped smoking and you are free of Covid-19 (coronavirus) symptoms for at least 7 weeks before the operation.
- Heart attack (where part of the heart muscle dies) (risk: 1 in 500). A heart attack can sometimes cause death.
- Stroke (loss of brain function resulting from an interruption of the blood supply to your brain) (risk: 1 in 1,000). A stroke can sometimes cause death.

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 175).
- Split in the bone when your knee replacement is inserted, if the bone is weak (risk: 1 in 1,000). 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 straight away to restore the blood flow.
- Damage to ligaments or tendons near your knee. 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 (risk: 1 in 200 in the first 3 years after surgery). 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 straight away as the infection could spread to your knee.
- Wear or loosening without infection. You may need another operation to do your knee replacement again (risk: 1 in 20 in the first 15 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 - CRPS) (risk: 1 in 150). The cause is not known. You may need further treatment including painkillers and physiotherapy. Your knee can take months or years to improve. Sometimes there is permanent pain and stiffness.

Consequences of this procedure

- Pain. The healthcare team will give you medication to control the pain and it is important that you take it as you are told so you can move about as advised.
- Unsightly scarring of your skin, although knee-replacement wounds usually heal to a neat scar.

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.

Good pain relief is important to help you to recover. If you are in pain, let the healthcare team know.

Getting out of bed and walking is an important part of your recovery. The physiotherapist will help you to start walking using crutches or a walking frame, usually on the day of surgery or 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 can go home when your pain is under control, you can get about safely, and any care you may need has been arranged.

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 carefully follow the instructions of the healthcare team if you have been given medication 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 walking aids until you can walk well without them.

If your knee replacement does not bend well, your surgeon may need to manipulate it (risk: 1 in 50). 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 you can control your vehicle, including in an emergency, and always check your insurance policy and with the healthcare team.

The future

Most people make a good recovery, have less pain, and can move about better.

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.

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.

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 15 years.

Summary

Arthritis of the knee usually happens without a known cause. For a few people it is a result of a previous knee injury or rheumatoid arthritis. 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 document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatments options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

Acknowledgements

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Illustrator

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