

Partial (unicompartmental) knee replacement

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A partial knee replacement



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What is arthritis?

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

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.

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 your knee, which can interfere with normal activities. If only part of your knee is damaged by arthritis, you can sometimes have a partial knee replacement instead of a total knee replacement.

Shared decision making and informed consent

Your surgeon has suggested a partial knee replacement procedure. However, it is your decision to go ahead with the procedure or not. This document will give you information about the benefits and risks to help you make an informed decision.

Shared decision making happens when you decide on your treatment together with your healthcare team. Giving your 'informed consent' means choosing to go ahead with the procedure having understood the benefits, risks, alternatives and what will happen if you decide not to have it.

If you have any questions that this document does not answer, it is important to ask your healthcare team. Once they have answered all your questions and you feel ready to go ahead with the procedure, they will ask you 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 after signing the form.

What are the benefits of surgery?

You should get less pain and be able to walk more easily. A partial knee replacement may bend better and feel more like a normal knee than a total knee replacement.

Are there any alternatives to a partial knee replacement?

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. Your surgeon may recommend injections with special lubricating fluid or plasma.

An operation called a tibial osteotomy changes the shape of your leg and can take the load off the worn part of your knee.

All these measures become less effective if your arthritis gets worse and this is when your surgeon may recommend a knee replacement. If you decide not to have a partial knee replacement, you can usually have a total knee replacement instead.

What will happen if I decide not to have the procedure?

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 procedure involve?

If you are female, the healthcare team may ask you to take a pregnancy test. Sometimes the pregnancy test does not show an early-stage pregnancy, so tell the healthcare team if you could be pregnant.

The healthcare team will ask you to confirm your name and the procedure you are having.

Different kinds of anaesthetic 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.

Your surgeon will make a cut on the front of your knee and will check that your knee is suitable for a partial replacement. If there is any damage in other parts of your knee, you may need to have a total knee replacement instead.

Your surgeon will remove the damaged joint surfaces. They will then 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 on your knee replacement that bond directly to the bone.

Your surgeon will close your skin with stitches or clips.

Clips, staples, implants, metalwork and any other materials used for the procedure are designed not to react with your body, and some can stay in place for the rest of your life. These may also be used to plan procedures you may need in the future.

What should I do about my medication?

Make sure your healthcare team know 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 buy over the counter.

How can I prepare myself for the procedure?

If you smoke, stopping 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. The healthcare team may give you specific advice if you have certain health problems.

You can reduce your risk of infection in a surgical wound by taking the following steps:

- 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.

When you come into hospital, wash your hands regularly and wear a face covering if asked.

What complications can happen?

The healthcare team are trained 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, you are obese, you smoke or you have other health problems. Health problems include diabetes, heart disease or lung disease.

Some complications can be serious and may even cause death (risk: 1 in 1,000).

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 procedure

- Bleeding during or after the operation. You may need a blood transfusion.
- Infection of the surgical wound (risk: 1 in 600). It is usually safe to shower after 2 days but you should check with the healthcare team. Keep your wound dry and covered. Tell the healthcare team if you develop a high temperature, notice pus (thick, yellowish or whitish fluid) 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 you may need another procedure. Do not take antibiotics unless you are told you need them.
- Allergic reaction to the equipment, materials or medication. The healthcare team are trained to detect and treat any reactions that may happen. Tell them if you have any known allergies or if you have reacted to any medication, tests or dressings 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.

- Difficulty passing urine. You may need a catheter (tube) in your bladder for 1 to 2 days.
- Venous thromboembolism (VTE). This is a blood clot in your leg (deep-vein thrombosis, or DVT) or one that has moved to your lung (pulmonary embolus, or PE) (risk: 1 in 200). DVT can cause pain, swelling or redness in your leg, or the veins near the surface of your leg to appear larger than normal. The healthcare team will encourage you to get out of bed soon after the procedure and may give you injections, medication, or special stockings to wear. Tell the healthcare team 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.
- Chest infection. You may need antibiotics and physiotherapy. Your risk is lower if you have stopped smoking and have not had a recent cough or cold.
- Heart attack (where part of the heart muscle dies). 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.

Specific complications of this procedure

- Damage to nerves around your knee, leading to weakness, numbness or pain in your leg or foot.
- Damage to blood vessels behind your knee, leading to loss of circulation to your leg and foot. You will need surgery straight away to restore the blood flow.
- Bearing dislocation, where the piece of plastic in the middle of your knee replacement comes out of place (risk: 1 in 100). This can only happen with some types of partial knee replacement. You will need another operation.
- Infection in your knee, which can result in loosening and failure of your knee replacement (risk: 1 in 200). 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. You may need to have a total knee replacement.
- 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). 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.
- Difficulty passing urine. This normally gets better after a few days. If it gets worse (bladder retention) you may need to go home with a urinary catheter and come back to hospital to have it removed around 2 weeks later. Your risk is higher if you are male, over the age of 60 or have prostate problems.
- Split in the bone when your knee replacement is inserted, if the bone is weak. Your surgeon may need to fix the bone, or use a different type of knee replacement.

Consequences of this procedure

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

What happens after the procedure?

In hospital

After the operation you will be taken to the recovery area and then to the ward. You will usually have an x-ray to check the position of your knee replacement.

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

Follow any instructions the healthcare team give you to reduce the risk of a blood clot, such as taking medication or wearing 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.

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. The healthcare team may give you specific advice if you have certain health problems.

Do not drive a car or ride a bike until you can control your vehicle, including in an emergency. Ask the healthcare team about this and always check your insurance policy.

You may need to wait a while before you can fly. Please check the website of your national aviation authority for information about flying after surgery or speak to your airline or a member of the healthcare team.

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. You can usually expect to be able to bend your knee to 120 degrees or more.

You can get arthritis in the parts of your knee that have not been replaced. If the pain is severe, you may need another operation to take out your partial knee replacement and put in a total knee replacement (risk: 1 in 50).

A partial 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 9 in 10 partial knee replacements will last 10 years.

Summary

Arthritis of your knee usually happens without a known cause. It can sometimes affect only part of your knee. If you have severe pain, stiffness and disability, a partial knee replacement should reduce your pain and help you to walk more easily.

Surgery is usually safe and effective but complications can happen. Being aware of them will help you make an informed decision about surgery. This will also help you and the healthcare team to notice and treat any problems after your procedure as quickly as possible.

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 treatment options.

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

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Illustrator

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