

Patient information from BMJ

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Knee replacement surgery

This information tells you what to expect when you have surgery to replace a knee. It explains how the operation is done, how it can help, what the risks are, and what to expect afterwards.

Different hospitals do things in slightly different ways, so your operation might not happen exactly as we describe it. You can use our information to discuss your surgery with the doctors and nurses treating you.

What is knee replacement surgery?

Knee replacement surgery is where damaged parts of your knee are removed and replaced with new parts. These new parts are typically made of metal and plastic. Together, these artificial parts are called a **prosthesis** or a **prosthetic knee joint**. A knee replacement is usually used as a treatment for severe problems caused by a type of arthritis called **osteoarthritis**.

There are two types of knee replacement.

- A **total knee replacement** is where your entire knee joint is replaced.
- A **partial knee replacement** is where only one part of your knee joint is replaced.

Partial knee replacements only work for people with osteoarthritis in one half of the knee (for most people this is the inner half, nearest your other leg).

A partial knee replacement usually means that you can move your knees again sooner than after a total knee replacement. You might also be able to go home from the hospital earlier.

Why might I need a knee replacement?

You might need a knee replacement if your knee joint has been damaged. The most common cause of knee joint damage is **osteoarthritis**. Less common causes include rheumatoid arthritis, knee injury, and other conditions that affect the bone and cartilage around the knee joint.

If you have osteoarthritis, the hard, slippery material (called cartilage) in your knee joint breaks down. This can cause pain and can weaken your knee. It can sometimes stop it from bending properly.

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Your doctor might suggest that you have knee replacement surgery if:

- you are in pain most of the time and it is getting worse
- your pain stops you from sleeping
- you can't walk properly
- you can't carry out your everyday activities
- you have to rely more than you want to on other people
- your other treatments such as painrelievers, physical therapy, or physical aids aren't working
- your pain is making you anxious or depressed
- your knee keeps giving way or locking up.

What happens during the surgery?

Knee replacement surgery usually takes between 1 and 2 hours.

You won't feel anything during the surgery because you will have either:

- **A general anesthetic.** These are medications that will make you sleep throughout the entire surgery.
- **A regional anesthetic.** These are medications that take away all feeling from the area being operated on. You will be awake but you will be sleepy. You won't be able to see the surgery taking place.

Here's what you can expect to happen during the surgery.

- The surgeon makes a long cut, usually over the front of your knee.
- They move your kneecap slightly out of the way so they can access the damaged joint.
- They trim the bottom end of your thigh bone (femur) and top end of your shin bone (tibia) to remove the damaged surface.
- They then fit the new replacement parts over both bones (some people also have a new surface fitted onto the back of the kneecap).
- The surgeon then closes the wound using stitches or clips.

If you have a partial knee replacement, the surgeon will only prepare and fit the new parts over the damaged half.

What are the risks of knee replacement surgery?

There are risks with all operations. Your surgeon should talk through these with you before your surgery.

Problems can happen during or soon after surgery, while others happen over the longer term. However, many people who have knee replacements will have no problems at all.

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You are more likely to have problems after surgery if you are overweight. Your doctor will discuss options to help you lose weight before your surgery.

Possible short-term problems

A reaction to the anesthetic. You may feel sick for a while after your operation. This is a common side effect after having an anesthetic. A more serious side effect is an allergic reaction; your doctor will ask you before the operation about any allergies you have.

Anesthetics can also make it difficult for some people (especially men) to urinate properly. If this happens, you might need a small tube called a catheter inserted into your bladder for a short time to drain the urine.

Blood clots (deep vein thrombosis or pulmonary embolism). It is possible that you will get a blood clot in one of the veins in your leg (this is called deep vein thrombosis, or DVT for short). These blood clots don't usually cause problems, and most people never know they have had one.

But a blood clot that forms in your leg can sometimes travel through the blood to your lungs (this is called pulmonary embolism, or PE for short). PE is more serious and can even be fatal.

To help prevent blood clots in your legs or lungs, you will probably be given elastic stockings to wear after your operation. These stockings help to keep the blood flowing in your legs.

You might also be given blood-thinning medications during your stay in the hospital, to help stop clots from forming.

Damage to the nerves in your leg. It's rare, but nerves in your leg can be damaged during this type of surgery. This causes numbness and tingling in your leg, and sometimes weakness in your ankle or foot. Most people make a full recovery in time.

Wound infection. If the skin and tissue underneath the wound become red and sore, it could be a sign of infection. If you have an infection you will be treated with antibiotics.

If the infection spreads to the knee replacement, you might need an operation to clean out the joint. In the most severe cases, an operation might be needed to remove the replacement.

Possible longer-term problems

You have ongoing pain or problems bending your knee. If your knee is still painful after your operation recovery time, your surgeon will try to find out why. Sometimes there isn't a clear reason. The pain usually goes away but it can take many months. You might need to have more physical therapy if you have problems bending your knee.

The length of your legs may be different. This is rare. But if it happens you can wear shoes with one raised heel to stop you from limping.

Your knee gives way or buckles. Your new knee should last for about 20 years. But sometimes knee replacements fail. If this happens, your knee will become painful and feel

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unstable. Doctors call this instability. The pain can interfere with your daily life. It can also increase the wear and tear on your new knee.

If your knee starts to give way, you might need a second operation to make it more stable. Or you might need another knee replacement. Second operations are more difficult to do and complications are more likely.

What can I expect after the operation?

A total knee replacement is a major operation and you will need time to recover.

Immediately after your operation

When you leave the operating theatre you will go to the **recovery area** until you are fully awake.

You will have a large cut on your knee, with stitches or clips keeping it closed. It will be covered with a waterproof dressing.

You will have a drip in your arm, and possibly one or two small plastic tubes coming out of your knee. These are **drains**. They stop fluid from collecting under your scar. The drip and the drains come out after 1 or 2 days.

You are likely to have some pain immediately after the operation, but you will be given painrelievers. If these don't help enough, you must tell a nurse or doctor, as pain can slow your recovery.

If you had a regional anesthetic, you might not be able to feel or move your legs for several hours after your operation. This is normal. You won't have any pain during this time either.

While recovering in hospital

You should start **physical therapy** the day after your operation, when you should be able to sit on the side of your bed and move your knee. You will have physical therapy every day until you leave the hospital, and perhaps for longer.

Your knee will feel stiff at first but you should be able to walk with a frame or sticks after a few days.

You should be able to go home 1 to 3 days after your operation.

Going home

When you get home, you will probably still need a **frame, crutches, or walking sticks** to help you get about for a while.

A nurse will take out your stitches or clips after about 10 days. It's important to carry on with the **exercises** that your physical therapist showed you in the hospital.

You don't need to worry about sleeping in a special position after a knee replacement.

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The pain of your arthritis should be gone quite soon after your operation, but it could be a few weeks or even months before you feel completely normal.

You should return to work only when you feel ready. If your work involves a lot of standing or lifting, you may have to stay off work for up to 3 months.

Looking after your new knee

There are some simple but important things that you should do to help your recovery. For example:

- **do** keep doing your physical therapy exercises, but don't force your knee to do things that aren't comfortable
- **do** avoid twisting your knee
- **don't** cross your legs for 6 weeks after the operation
- **don't** kneel on your new knee until your surgeon says you can, and finally
- **do** tell your doctor or surgeon if you have any problems with your new knee.

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