

Anaesthetic choices for hip or knee replacement

This leaflet explains the different choices of anaesthetic when you have an operation to replace your hip or knee and what you can expect. It has been written by anaesthetists, patient representatives and patients, working together.

Contents

This leaflet explains:

- the different types of anaesthetics for hip and knee replacement
- what happens before the operation
- how to discuss risks and options with your anaesthetist
- how to prepare for surgery
- what happens on the day of the operation
- what happens after the operation.

Anaesthetic choices for hip or knee replacement

When you are going to have a hip or knee replacement there are two main different types of anaesthetic you can have:

- a spinal anaesthetic
- a general anaesthetic.

There are other procedures that you can have as well, which should reduce discomfort and make the whole experience more comfortable. These are:

- a nerve block
- local anaesthetic infiltration (injections) around the joint and the wound
- sedation

Spinal anaesthetic

This involves injecting anaesthetic drugs into your lower back (between the bones of your spine). This makes the lower part of the body numb during the operation and you will not be able to move your legs. During a spinal anaesthetic you can stay awake.

Please see our leaflet **Your spinal anaesthetic** for more information:

rcoa.ac.uk/patientinfo/your-spinal-anaesthetic.

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General anaesthetic

This is medication that gives a deep-sleep-like state. It is essential for some operations and procedures. You are unconscious and feel nothing. Drugs for a general anaesthetic are usually given into a vein or breathed in as a gas, or a combination of both.

Nerve block

This is an injection of local anaesthetic near to the nerves that go to your leg. Your anaesthetist may use an ultrasound machine to help identify the nerves. Part of your leg should be numb and pain free for some hours, reducing the need for strong pain killers after the operation. Depending on the type of nerve block, you may not be able to move your leg fully until the local anaesthetic wears off.

The operation cannot be done with a nerve block alone. You will need to have a spinal or a general anaesthetic as well. Please see our leaflet on **Peripheral nerve blocks** for more information: rcoa.ac.uk/patientinfo/peripheral-nerve-blocks.

Wound infiltration

This is an injection of local anaesthetic, and sometimes other pain relief medicine, around the joint being operated on. It is given by the surgeon during the operation. It can be given with a spinal or general anaesthetic to make you more comfortable after the operation. Sometimes a small plastic tube is left in the joint to top up the injection.

It provides pain relief, without affecting the muscle strength of the leg. The pain relief is variable, but you may be able to get up sooner than if you have a nerve block.

Sedation

Sedation is often used with a spinal anaesthetic to make you relaxed and sleepy during the operation. Sedation may be light or deep and you may remember everything, something or nothing after sedation.

You can read more about sedation in our leaflet **Sedation explained** which can be found on our website: rcoa.ac.uk/patientinfo/sedation-explained.

Deciding which option is best for you

The anaesthetist will discuss with you the various options and which is best for you based on your risk, your health and the type of surgery you are having.

Shared decision making

The Centre for Perioperative Care has produced an animation to explain shared decision-making. You can view it here: cpoc.org.uk/shared-decision-making

Shared decision-making ensures that individuals are supported to make decisions that are right for them. It is a collaborative process through which a clinician supports a patient to reach a decision about their treatment.

The conversation brings together:

- the clinician's expertise, such as treatment options, evidence, risks and benefits
- what the patient knows best: their preferences, personal circumstances, goals, values and beliefs.

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Find out more on the National Institute for Health and Care Excellence website:
<https://bit.ly/NICE-SDMinfo>.

Here are some tools that you can use to make the most of your discussions with your anaesthetist or preoperative assessment staff:

What are the **Benefits?**
What are the **Risks?**
What are the **Alternatives?**
What if I do **Nothing?**

Choosing Wisely UK BRAN framework

Use this as a reminder to ask questions about treatment.

https://bit.ly/CWUK_leaflet



NHS ask three questions

There may be choices to make about your healthcare.

https://bit.ly/NHS_A3Qs



The Centre for Perioperative Care (CPOC)

CPOC has produced an animation to explain shared decision-making.

cpoc.org.uk/shared-decision-making

Questions

you might like to ask

If you have questions about your anaesthetic, write them down (you can use the examples below and add your own in the space below them). If you want to speak to an anaesthetist before the day of your operation, contact the preoperative assessment team, who may be able to arrange for you to speak to an anaesthetist on the phone or to see them in a clinic.

1 What type of anaesthetic would be best for me and why?

2 Do I have any special risks?

3 What can I do to improve my health before the surgery?

4 ...

5 ...

6 ...

Risk and anaesthesia

Modern anaesthetics are very safe. There are some common side effects from the anaesthetic drugs or the equipment used, which are usually not serious or long lasting. Risks will vary between individuals and will depend on the procedure and anaesthetic technique used.

Your anaesthetist will discuss with you the risks that they believe to be more significant for you. They will only discuss less common risks if they are relevant to you.

If you wish to read more detail about risks associated with anaesthesia, please visit: rcoa.ac.uk/patientinfo/risk-leaflets.

Before your operation

The preoperative assessment clinic

Most hospitals will invite you to attend a preoperative assessment clinic to find out about your general health and activity levels.

Please bring a list of the medications that you are taking, or bring your medicines in their full packaging.

You will be asked about your general health and activity and about previous illnesses, operations and anaesthetics. You will also be asked about any allergies you may have.

Staff will assess your health for the operation and order all the tests that you need, such as blood tests or an electrocardiogram (ECG) to check how well your heart works. Blood tests may include checking your iron levels and prescribing iron supplements if needed. This will help reduce the need for a blood transfusion during the operation.

Staff can also talk to you about types of anaesthetic for your operation. You may also meet an anaesthetist to discuss your health in more detail and your anaesthetic choices. They may recommend one particular choice of anaesthetic if you have certain medical conditions.

If you have complex medical problems or limited mobility not due to your joints, you may be at a higher risk from the anaesthetic and/or the surgery. You may want extra time to think about whether to go ahead with the operation at all and to discuss it with your family or carers.

Preparing for the operation

Fitter patients who are able to improve their health and lifestyle recover from surgery more quickly and with fewer complications.

There is much you can do to prepare yourself for an operation. Even small changes can make a big difference. You might want to increase your levels of physical activity and improve your diet. If you drink or smoke you should consider cutting back or even stopping.

If you have a long-standing medical problem, check with your GP surgery whether there is anything you can do to improve it well ahead of the surgery.

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Our **Fitter Better Sooner** resources will provide you with the information you need to become fitter and better prepared for your operation. Please see our website for more information: rcoa.ac.uk/patientinfo/fitterbettersooner.

Prehabilitation programmes

If you have planned hip or knee surgery your hospital may offer a range of programmes to help you get fitter for your operation, speed up your recovery and leave hospital earlier. Below are some examples of these prehabilitation programmes. Ask your surgeon or preoperative assessment if your hospital runs these programmes.

Hip and knee (joint) schools

Many hospitals offer information sessions which you can attend before your surgery. These are known as 'Joint schools'. They aim to inform patients about the various steps of the surgical journey, from preparing for admission through to recovery at home. You can also ask any questions you might have about the surgery and the anaesthetic.

Enhanced Recovery Programme

Enhanced recovery is the name given to a programme that aims to get you back to your normal health as quickly as possible after a major operation. Hospital staff look at all the evidence of what you and they can do before, during and after your surgery to help give you the best chances of a quick and full recovery.

The programmes will vary depending on what operation you are having and which hospital you are being treated at, but reasons for this may include:

- improving your fitness levels before your operation if there is enough time
- treating any other long-term medical conditions
- reducing the time you fast by giving you water and carbohydrate drinks before your surgery
- giving you medication to prevent sickness after surgery
- considering the best ways of giving pain relief during the operation
- using local anaesthetic blocks or regional anaesthetics where possible
- giving you the best pain relief afterwards to get you moving again more quickly
- encouraging you to Drink, Eat and Mobilise within 24 hours of surgery (DrEaMing)
- reducing the time you have catheters and drips attached
- teaching you exercises to help you recover after your operation.

On the day of your operation

The hospital should give you clear instructions about stopping eating and drinking. These instructions are important. If there is food or liquid in your stomach during your anaesthetic, it could come up into your throat and lungs. This may endanger your life. Some hospitals will allow you to 'sip til send' if appropriate. This means that you will be allowed to drink small amounts of clear liquids right until the time of your surgery to help you stay hydrated. You can read more about 'sip til send' on the Centre for Perioperative Care website (<https://bit.ly/CPOC-ST5>).

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If you have diabetes please check with your hospital about when to eat and drink and what diabetic medication to take on the day of your operation.

If you have not stopped smoking as part of your preparation for surgery, you should not smoke at all on the day of your operation. You should also not vape.

If you are taking medicines, you will need specific instructions from the preassessment team about which ones you should take that day. You can take a sip of water to take any tablets as needed.

If you take any 'blood thinning' drugs such as warfarin, clopidogrel or rivaroxaban, you will need to discuss with the healthcare team when you should stop taking them. However, there can be risks if you stop taking these medications and you may be prescribed something else.

If you feel unwell when you are due to come into hospital, please telephone the ward for advice.

Meeting your anaesthetist

You may meet with an anaesthetist at the preassessment clinic. Otherwise, you will meet your anaesthetist in the hospital on the day of your surgery. They will discuss the type of anaesthetic you can have, including benefits, risks and your preferences, and you will decide together which anaesthetic is best for you. You may also meet other highly trained healthcare professionals. You can read more about these roles and the anaesthesia team on our website:

rcoa.ac.uk/patientinfo/anaesthesia-team

Having a 'pre-med' (premedication)

Premedication (a 'pre-med') is sometimes given before some anaesthetics. Pre-meds prepare your body for surgery – they may start off the pain relief, reduce acid in the stomach or help you relax.

When you are called for your operation

- A member of staff will go with you to the theatre.
- You can usually wear your glasses, contact lenses, hearing aids and dentures until you are in the room where your anaesthetic will be given. You may be able to keep them on if you are not having a general anaesthetic.
- If you are having a local or regional anaesthetic such as spinal, you may be able to take your own electronic device, with headphones to listen to music (check with your nurse beforehand).
- You may walk to theatre, accompanied by a member of staff, or you may go in a wheelchair or on a bed or trolley. If you are walking, you can usually wear your own dressing gown and slippers.

Routine checks will be done as you arrive in the operating department, before the anaesthetic starts. You will be asked your name, your date of birth, the operation you are having, the part of your body on which you are having the surgery, when you last ate or drank, and about any allergies. These checks are standard in all hospitals and are an important part of safety procedures.

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Starting the anaesthetic

Your anaesthetic may start in the anaesthetic room or in the operating theatre. Your anaesthetist will be working with a trained assistant. The anaesthetist or the assistant will connect you to machines that measure your heart rate, blood pressure and oxygen level.

A cannula, a thin plastic tube, will be inserted in a blood vessel on the back of your hand or arm. This will be used to give the anaesthetic and any other drugs required during and after surgery. If you are feeling anxious about having a cannula inserted, you may be able to have a local anaesthetic cream to numb the area.

During the operation

Your anaesthetist will stay with you for the whole operation and will monitor your condition very closely, adjusting the anaesthetic as required. If you are awake or having sedation, the anaesthetist will be able to talk with you to reassure you and help you relax.

Blood transfusion and alternatives

During or after some operations, you can lose a significant amount of blood.

If necessary, a blood transfusion can be used to replace the blood you have lost.

Please ask your surgeon or anaesthetist if you would like to know more about blood transfusion and any alternatives which may be available. You can also find more information from the NHS website: [nhs.uk/conditions/blood-transfusion](https://www.nhs.uk/conditions/blood-transfusion)

After the operation

- You will be taken to the recovery room, a special ward close to the operating theatre where you will be closely monitored as you recover from the anaesthetic.
- You will receive one-to-one care from a healthcare professional in the recovery room. There will be other patients in the same room.
- Your heart rate, blood pressure and oxygen levels will be monitored carefully. You will usually be given oxygen through a light plastic face mask.
- You may have a drip to give you fluids through the cannula.
- If you have pain or sickness, it will be treated promptly.
- You may be offered something to drink.
- When the recovery room staff are satisfied that you have recovered safely from your anaesthetic, you will be taken back to the ward.

Pain relief

The anaesthetic for a hip or knee replacement is usually focused on minimising pain after your operation, but pain is a normal part of the recovery process. The aim of pain relief after your operation is to make pain tolerable and to allow you to get up and start using your new joint. It is not possible to eliminate pain altogether and a certain level of pain should be expected.

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Here are some ways of giving pain relief:

Pills, tablets or liquids to swallow

This is the most frequently used method of pain relief after hip and knee replacement. You may be prescribed pain killers containing opioids following your operation. It is important that you reduce and then stop these medications as soon as possible as their continued use can cause you significant harm.

You can find more information on opioids on the Faculty of Pain Medicine website here:

fpm.ac.uk/opioids-aware/information-patients

Injections

Injections into a vein have a very rapid effect. Injections into the leg or buttock muscle work more slowly. Strong pain-relieving drugs such as morphine, pethidine or codeine may be given.

Going home and when to ask for help

How soon you will be able to go home will depend on how fast you recover after the operation, your health condition and the type of surgery and anaesthetic you have had. Some patients may go home the same day in some hospitals, while others may need to stay in hospital for a few days. Generally you will be able to go home once you have started eating, drinking and mobilising. The healthcare team will also want to be certain that any pain is under control and that you can pass urine before discharging you.

You will not be able to drive after surgery, so you should arrange a taxi or for someone to pick you up.

Before being discharged you will be given information on any exercises you should do to help you recover and information on how to look after your wound.

You should contact your GP or the hospital where you had your surgery if:

- you have severe pain or your pain increases
- you develop pain and swelling where you had the surgery
- you experience chest pain or breathing difficulty
- you have any concerns that are not covered in the discharge information you have been given by the hospital.

If you feel very unwell you should go to your nearest emergency department as soon as possible.

Disclaimer

We try very hard to keep the information in this leaflet accurate and up-to-date, but we cannot guarantee this. We don't expect this general information to cover all the questions you might have or to deal with everything that might be important to you. You should discuss your choices and any worries you have with your medical team, using this leaflet as a guide. This leaflet on its own should not be treated as advice. It cannot be used for any commercial or business purpose. For full details, please see our website:

rcoa.ac.uk/patientinfo/resources#disclaimer

Information for healthcare professionals on printing this leaflet

Please consider the visual impairments of patients when printing or photocopying this leaflet. Photocopies of photocopies are discouraged because these tend to be low-quality prints and can be very difficult for patients to read. Please also make sure that you use the latest version of this leaflet, which is available on the RCoA website: rcoa.ac.uk/patientinfo/leaflets-video-resources

Tell us what you think

We welcome suggestions to improve this leaflet. Please complete this short survey: surveymonkey.co.uk/r/testmain or scan the QR code with your mobile.



If you have any general comments, please email them to: patientinformation@rcoa.ac.uk.

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Sixth Edition, June 2023

This leaflet will be reviewed within three years of the date of publication.

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