

# Anaesthetic choices for hip or knee replacement

## Questions you may like to ask your anaesthetist

Q Who will give my anaesthetic?

Q What type of anaesthetic do you recommend?

Q Have you often used this type of anaesthetic?

Q What are the risks of this type of anaesthetic?

Q Do I have any special risks?

Q How will I feel afterwards?

## Tell us what you think

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We welcome suggestions to improve this booklet.

You should send these to:

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This leaflet will be reviewed within five years of the date of publication



The Royal College of  
Anaesthetists



The Association of  
Anaesthetists of Great  
Britain and Ireland

## Information for patients

You can find out more from  
[www.youranaesthetic.info](http://www.youranaesthetic.info)

This booklet gives basic information about having an anaesthetic for knee or hip replacement surgery.

- It explains some different types of anaesthetic.
- It tells you what to expect when you come into hospital.

It is part of a series about anaesthetics and related topics written by a partnership of patient representatives, patients and anaesthetists. You can find more information in other leaflets in the series.

You can find more information in other leaflets in the series from **www.youranaesthetic.info**. They may also be available from the anaesthetic department in your hospital.

The series includes the following:

- Anaesthesia explained (a more detailed booklet)
- You and your anaesthetic
- Your child's general anaesthetic
- Your spinal anaesthetic
- Epidurals for pain relief after surgery
- Headache after an epidural or spinal anaesthetic
- Your child's general anaesthetic for dental treatment
- Local anaesthesia for your eye operation
- Your tonsillectomy as day surgery
- Your anaesthetic for aortic surgery

Throughout this booklet and the leaflets included in the series, we use the following symbols.



To highlight your options or choices.



To highlight where you may want to take particular action.



To point you to more information.

## Introduction

You are going to have a hip or knee replacement soon. You may have heard that you can have different types of anaesthetic:

- a general anaesthetic
- a spinal anaesthetic
- an epidural anaesthetic
- a nerve block (to help with pain afterwards)
- a combination of anaesthetics.

Anaesthetists try to offer a very personal service.

Your anaesthetist will explain which anaesthetic methods are suitable for you, and help you decide which you would prefer.

## A general anaesthetic

A general anaesthetic gives a state of controlled unconsciousness during which you feel nothing. You will receive:

- anaesthetic drugs (an injection or a gas to breathe)
- strong pain relief drugs (morphine or something similar)
- oxygen to breathe
- sometimes, a drug to relax your muscles

You will need a breathing tube in your throat to make sure that oxygen and anaesthetic gases can move easily into your lungs. If you have been given drugs that relax your muscles, you will not be able to breathe for yourself and a breathing machine (ventilator) will be used.

When the operation is finished the anaesthetic is stopped and you regain consciousness.

### Advantages

You will be unconscious during the operation.

### Disadvantages

A general anaesthetic alone does not provide pain relief after the operation. You will need strong pain relieving medicines afterwards which make some people feel quite unwell. Or you may wish to consider a nerve block with a general anaesthetic (see page 7).

Some of the risks and side effects of general anaesthetics are described later in this booklet. You can get more information about general anaesthetics from the booklet 'Anaesthesia explained' (see inside front cover of this leaflet).



## A spinal anaesthetic

Local anaesthetic is injected near to the nerves in your lower back.

- You go numb from the waist downwards.
- You feel no pain, but you remain conscious.
- If you prefer, you can also have drugs which make you feel sleepy and relaxed (sedation).

### Advantages – compared to a general anaesthetic

- It helps to avoid blood clots in the legs and lungs.
- There may be less bleeding during surgery and you may be less likely to need a blood transfusion.
- You remain in full control of your breathing. You breathe better in the first few hours after the operation.
- You do not need so much strong pain relieving medicine in the first few hours after the operation.
- You should have less sickness and drowsiness after the operation and may be able to eat and drink sooner.

### Disadvantages



Some of the risks and side effects of a spinal anaesthetic are described later in this booklet. You can get more information about spinal anaesthetics from the leaflet 'Your spinal anaesthetic' (see inside front cover of this leaflet).

## An epidural anaesthetic

A small plastic tube (an epidural catheter) is passed through a needle into a place near to the nerves in your back. You receive local anaesthetics and pain relief drugs through this tube, relieving pain and reducing all feeling in your lower body.

Although operations can be done with an epidural alone, it is more commonly used for:

- operations expected to be very long, say more than three hours
- operations expected to be particularly painful afterwards.

For these operations, it is often combined with a spinal or a general anaesthetic.

### Advantages

- It can be topped up with more local anaesthetic, and therefore its effects can be made to last longer than a spinal anaesthetic.
- It can be used to make you comfortable for several days after the operation.

### Disadvantages

- About 1 in 10 epidurals is not fully effective in relieving pain after the operation.

Some of the risks and side effects of an epidural anaesthetic are described later in this booklet. You can get more information from the leaflet 'Epidurals for pain relief after surgery' (see inside front cover of this leaflet).



## A nerve block

This is an injection of local anaesthetic near to the nerves which go to your leg. Part of your leg should be numb and pain-free for some hours afterwards. You may also not be able to move it properly during this time.

If you are having a general anaesthetic, this injection may be done before the anaesthetic starts, or it may be done when you are unconscious.

### Advantages

- You usually need a lighter general anaesthetic and you should be less sick and drowsy afterwards. This is because you should need less strong pain relieving medicines during and after the anaesthetic.
- You should be more comfortable for several hours after the operation.

## A combination of anaesthetics

**You can have a spinal or epidural anaesthetic and a general anaesthetic together.**

- You gain the benefits of a spinal or epidural anaesthetic but you are unconscious during the operation.
- The general anaesthetic will be 'lighter'.
- Unpleasant after-effects of the general anaesthetic may be less.

**You can have a nerve block with a general anaesthetic, or after a spinal anaesthetic.**

- You should be more comfortable for some hours after the operation than with a general anaesthetic or spinal anaesthetic alone.

## Before your operation

### The anaesthetist's visit

The anaesthetist will come and see you before your operation. He or she will ask you about your health and discuss which kinds of anaesthetic are suitable for you.

### The anaesthetist will ask you about:

- your general health and fitness
- any serious illnesses you have had
- previous anaesthetics and if there were any problems as far as you know
- whether you know of any family members who have had problems with anaesthetics
- medicines, pills, inhalers or homeopathic remedies that you use
- any allergies that you have
- whether you smoke
- whether you drink alcohol
- whether you have any loose, capped or crowned teeth.



### Your questions

This is a good time to ask questions and tell the anaesthetist about any worries that you have.

You may find it useful to write down any particular concerns before meeting your anaesthetist so that you don't forget anything.

## Delaying your operation

Your anaesthetist may suggest delaying your operation for a few weeks. This may be because he/she thinks that:-

- you need some more tests.
- your health could be improved to reduce the risks of the operation or the anaesthetic.

It is possible that your anaesthetist will think there are very high risks. You may want time to think about whether to go ahead with the operation. These concerns will also be discussed with your surgeon.

### 'This is how we usually do it'

You may find that your anaesthetist and the team of staff looking after you have very regular experience of a certain type of anaesthetic and less experience of others. This would add to the advantages of that technique over others.

Your preferences are important. Nothing will happen to you until you understand and agree with what is planned for you. You have the right to refuse if you do not want the treatment suggested.

## On the day of your operation

### Nothing to eat or drink – fasting ('nil by mouth')

The nurses looking after you should give you clear instructions about fasting. It is important to follow these. If there is food or liquid in your stomach during your anaesthetic, it could come up into the back of your throat and damage your lungs.

If you are not having a general anaesthetic, you will still be asked to follow these instructions. This is because a general anaesthetic may be needed unexpectedly, and you need to be prepared.

### Having a 'premed' (pre-medication)

This is the name for drugs which are sometimes given before an anaesthetic.

- Some premeds prepare your body for the anaesthetic, for example, drugs to prevent sickness or to reduce the acid in your stomach.
- You can also ask for a drug which makes you feel drowsy and helps you relax. If you think that this kind of premed will help you, please ask your anaesthetist.
- A premed is not always necessary.



### Your usual medicines

It is important that you continue to take your usual medicines, including inhalers, unless your surgeon or anaesthetist has advised you not to.



## Getting ready for theatre

- You will be given a hospital gown to put on.
- Jewellery should be removed or covered with tape to prevent damage to it or to your skin.
- You can wear your hearing aid, glasses and dentures until you are in the anaesthetic room. If you are not having a general anaesthetic, you can usually keep them on during the operation.
- If you are having a hip replacement you will need to take off your pants. If you are having a knee replacement you may be able to keep them on, or you may be given paper pants to wear.

## In the anaesthetic room

This is the room next to the operating theatre. Several people will be there, including your anaesthetist and an anaesthetic assistant.

The anaesthetist will use equipment to measure:

- your heart rate – three sticky patches on your chest (electrocardiogram or ECG)
- your blood pressure – a cuff on your arm
- the oxygen level in your blood – a clip on your finger (pulse oximeter)

A needle is used to put a thin soft plastic tube (a cannula) into a vein in the back of your hand or arm. Drugs and fluids can be given through this cannula.

→ **If needles worry you**, please tell your anaesthetist. A needle cannot usually be avoided, but there are things he or she can do to help.

## During the operation

All anaesthetics may cause changes in:

- your heart rate
- your blood pressure
- your breathing.

Changes may also occur due to loss of blood, the use of surgical cement and the use of a tourniquet on your leg (knee replacements only).

Your anaesthetist may intentionally adjust your blood pressure and breathing to control your response to surgery.

Anaesthetic drugs are given continuously throughout surgery and are stopped when the operation ends.

An anaesthetist will stay with you for the whole operation and watch your condition very closely, adjusting the anaesthetic as required.

## Blood transfusion

You may lose a significant amount of blood during and after the operation.

- A blood transfusion can be used to replace the blood you have lost.
- Usually this is blood from a volunteer who has given blood to help others (a blood donor).
- A blood transfusion will not be recommended unless you have a significantly low blood count.



- Please ask your surgeon or anaesthetist if you would like to know more about blood transfusion and any alternatives there may be.
- It may be possible to collect blood that is lost during the operation and afterwards from the drain that the surgeon places in your leg. This blood can be given back to you through your drip.

## After the operation

You will be taken to the recovery room, which is near to the operating theatre.

- You will have your own nurse in the recovery room. You will not be left alone.
- There will be other patients in the same room.
- You may need to breathe oxygen through a light plastic mask.
- You will have a drip (a bag of sterile water with added salt or sugar which is attached to your cannula and drips slowly into a vein).
- Your blood pressure, heart rate and oxygen level will be measured.
- If you have pain or sickness, the nurse will treat it promptly.

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

Good pain relief is important and some people need more pain relief medicines than others. Here are some ways of giving pain relief:-

### Pills, tablets or liquids to swallow

These take at least half an hour to work and you need to be able to eat and drink and not feel sick for these drugs to work.

### Suppositories

These waxy pellets are placed in your back passage (rectum). They are useful if you cannot swallow or might vomit.

### Injections

These are given into a vein for immediate effect, or into your leg or buttock muscle. Strong pain relieving drugs such as morphine, pethidine and codeine may be given by injection.

### Patient controlled analgesia (PCA)

This is a method using a machine that allows you to control your pain relief yourself. Small doses are given into a vein for immediate effect.

## Nerve blocks and epidurals

As already described, these can give effective pain relief for hours or days after the operation.



**You can get more information about pain relief from:**

**The nurses** on the ward

**Your anaesthetist**

**The pain-relief team** – Some hospitals have a team of nurses and doctors who specialise in the relief of pain after surgery. You may be able to contact this team for advice before you come into hospital. Leaflets may be available about pain relief methods.

**Manufacturers' information leaflets** for patients about any drug you are offered (your nurses should be able to give you these leaflets).

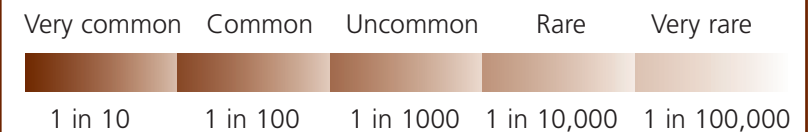
## Side-effects, complications and risks

In modern anaesthesia serious problems are uncommon. Risk cannot be removed completely, but modern equipment, training and drugs have made anaesthesia a much safer procedure in recent years.

Anaesthetists take a lot of care to avoid all the risks given on this page. Your anaesthetist will be happy to give you more information about any of these risks and the precautions taken to avoid them. You can also find more information in 'Anaesthesia explained'.

### People vary in how they interpret words and numbers.

This scale is provided to help.



## Common and very common side effects

### All anaesthetics

- Pain around injection sites and general aches and pains
- You may not be able to pass water (urine) or you may wet the bed. This is because you are lying down, you may have pain and you may have received strong pain relieving drugs. A soft plastic tube may be put in your bladder (a catheter) to drain away the urine for a day or two. This is more common after spinal or epidural anaesthetics.

### Spinal or epidural anaesthetics

- You will not be able to move your legs properly for a while.
- If pain relieving drugs are given in your spinal or epidural as well as local anaesthetic, you may feel itchy.

### General anaesthetics

- Sickness – treated with anti sickness drugs
- Sore throat – treated with pain relief drugs
- Drowsiness, headache, shivering, blurred vision – may be treated with fluids or drugs
- Difficult breathing at first – this usually improves rapidly
- Confusion and memory loss are common in older people, but are usually temporary.

## Uncommon side effects and complications

### All anaesthetics

- Heart attack or stroke

### General anaesthetics

- Damage to teeth, lips and gums
- Chest infection
- Awareness (becoming conscious during a general anaesthetic)

## Rare or very rare complications

### All anaesthetics

- Serious allergic reactions to drugs
- Damage to nerves (more common with spinals or epidurals)
- Death

### General anaesthetics

- Damage to eyes
- Vomit getting into your lungs

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## Frequently asked questions

### **Q Should I take all my usual medicines or tablets right up to my operation?**

Your surgeon and anaesthetist will tell you which drugs they would like you to take and which ones to stop. It helps if you bring all your medication with you so that they will know what you usually take.

### **Q Do other drugs affect the anaesthetic?**

Most drugs that treat heart, circulation or breathing problems have some effect on the anaesthetic. Your anaesthetist will be familiar with all the drugs that you take and will adjust the anaesthetic accordingly.

### **Q How do you know how much anaesthetic each person needs?**

The amount of anaesthetic needed for a spinal or general anaesthetic varies with your age, your weight and build and your general health. There is no easy formula! Anaesthetists use their judgment and experience. They stay with you all the time and they adjust the anaesthetic as needed.

### **Q Can I bring a relative or friend with me?**

It may be possible to arrange this. If this would help you, please ask the nurses on the ward or your anaesthetist if a relative or friend could come into the anaesthetic room.

### **Q How long does it take to regain consciousness after a general anaesthetic?**

You regain consciousness in five to 20 minutes. It may be longer before your memory fully returns.

### **Q Am I likely to get long term backache if I have a spinal injection?**

You may have a bruise at the site of the injection, but this soon passes. Backache due to arthritis is common in people having a hip or knee replacement. It is not made worse by having a spinal or epidural injection.

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## For your own notes

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## Useful organisations

### The Royal College of Anaesthetists

Churchill House  
 35 Red Lion Square website: [www.rcoa.ac.uk](http://www.rcoa.ac.uk)  
 London WC1R 4SG E-mail: [info@rcoa.ac.uk](mailto:info@rcoa.ac.uk)  
 Tel: 020 7092 1500 Fax: 020 7092 1730

This organisation is responsible for standards in anaesthesia, critical care and pain management throughout the UK.

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### The Association of Anaesthetists of Great Britain and Ireland

21 Portland Place website: [www.aagbi.org](http://www.aagbi.org)  
 London WC1B 1PY E-mail: [info@aagbi.org](mailto:info@aagbi.org)  
 Tel: 020 7631 1650 Fax: 020 7631 4352

This organisation works to promote the development of anaesthesia and the welfare of anaesthetists and their patients in Great Britain and Ireland.

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### The European Society of Regional Anaesthesia and Pain Therapy

c/o Department of Anaesthetics  
 The Alexandra Hospital  
 Woodrow Drive  
 Redditch website: [www.esraeurope.org](http://www.esraeurope.org)  
 Worcestershire B98 7UB Tel/Fax: 01527 512047

This organisation works to further regional anaesthesia in Europe.

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