



Anaesthetic Choices
for Hip or Knee
Replacement



Exceptional care for your health

Contents

A guide for patients

A guide for patients 3

Introduction

Introduction 4

General anaesthetic

Advantages 5

Disadvantages 5

Spinal anaesthetic

Advantages - compared to a
general anaesthetic 6

Epidural anaesthetic

Advantages 7

Disadvantages 7

Nerve block

Advantages 8

A combination of anaesthetics

A combination of anaesthetics 8

Before your operation

The Anaesthetist's visit 9

Your questions 9

Delaying your operation

'This is how we usually do it' 10

On the day of your operation

Nothing to eat or drink - fasting 11

Having a 'pre-med' 11

Your usual medicines 11

Getting ready for theatre 12

In the anaesthetic room 12

During your operation 13

Blood transfusion 13

After the operation

Pain relief 14

Side-effects, complications and risks

Common and very common
side effects 15

Uncommon side effects
and complications 16

Rare or very rare complications 16

Frequently asked questions

Frequently asked questions 17

Questions you may like to ask the Anaesthetist

Questions you may like to ask the
Anaesthetist 18

Useful organisations

Useful organisations 19

A guide for patients

This leaflet 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 anaesthetic 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 get these leaflets, and large print copies, from www.rcoa.ac.uk



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 anaesthetic

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



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General anaesthetic

A general anaesthetic produces 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 whilst you are anaesthetised 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 an operation. You will need strong pain relieving medicines afterwards which may make some people feel quite unwell. Or you may wish to consider a nerve block with a general anaesthetic (see page 8).

Some of the risks and side effects of general anaesthetic are described on page 15. You can get more information about general anaesthetic from the leaflet 'Anaesthesia explained' available at www.rcoa.ac.uk.

Spinal anaesthetic

A measured dose of 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)

Some of the risks and side effects of a spinal anaesthetic are given on page 15. You can get more information about spinal anaesthetics from the leaflet 'Your spinal anaesthetic' available at www.rcoa.ac.uk.

Advantages - compared to a general anaesthetic

- There is some evidence that less bleeding may occur during surgery which would reduce your risk of needing a blood transfusion
- You may remain in 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





Epidural anaesthetic

A small plastic tube (an epidural catheter) is passed through a needle into a place near the nerves in your back. You receive a measured dose of local anaesthetic 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 3 hours
- Operations expected to be particularly painful afterwards

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

Some of the risks and side effects of an epidural anaesthetic are given on page 15. You can get more information from the leaflet 'Epidurals for pain relief after surgery' available at www.rcoa.ac.uk.

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 an operation

Disadvantages

- Not all epidurals are fully effective in relieving pain after the operation. If this happens you will receive additional pain relief

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 drugs 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

You should be more comfortable for several hours after the operation.

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 any 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:

- Your health could be improved to reduce the risks of the operation or the anaesthetic
- You need some more tests

It is possible that the Anaesthetist will think that 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 advantages of that technique over others.

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

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On the day of your operation

Nothing to eat or drink - fasting ('Nil by mouth')

You may need to fast before your operation and you will be advised of this in your admission letter. Do not drink alcohol or smoke for 24 hours before admission. It is important to follow these instructions. 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 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 'pre-med' (pre-medication)

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

- Some pre-meds prepare your body for the anaesthetic, for example, drugs to prevent sickness or to reduce the acid in the stomach
- You can also ask for a drug which makes you feel drowsy and helps you relax. If you think that this kind of pre-med will help you, please ask your Anaesthetist

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.

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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 disposable 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 fingers (Pulse oximeter)

A needle is used to put a thin plastic tube (a cannula) into a vein in the back of the 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.

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During your operation

All anaesthetics may cause changes in

- Your heart rate
- Your blood pressure
- Your breathing

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

Your Anaesthetist may intentionally adjust your blood pressure and breathing to control the response to surgery. Anaesthetic drugs are given continuously throughout surgery and are stopped when the operation ends. A spinal, epidural or nerve block injection will wear off some hours after the operation has finished.

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.

An Anaesthetist will stay with you for the whole operation and watch your condition very closely.

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
- 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:

Patient controlled analgesia (PCA)

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

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.

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.

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
- 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.

People vary in how they interpret words and numbers

This scale is provided to help.

	Very common	(1 in 10)
	Common	(1 in 100)
	Uncommon	(1 in 1,000)
	Rare	(1 in 10,000)
	Very rare	(1 in 100,000)

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.

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 have been 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 and/or sick

General anaesthetics

- Nausea and sickness - treated with anti-sickness drugs
- Sore throat or damage to lips or tongue - treated with pain relief drugs
- Drowsiness, headache, shivering, blurred vision - may be treated with fluids or drugs
- Difficulty 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
- Chest infection
- Awareness (becoming conscious during a general anaesthetic)

In modern anaesthesia, serious problems are uncommon.

Rare or very rare complications

All anaesthetics

- Serious allergic reactions to drugs
- Damage to nerves
- Death

General anaesthetics

- Damage to eyes
- Vomit getting into your lungs



Frequently asked questions

Should I take 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 they will know what you usually take.

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.

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, 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.

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.

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

You regain consciousness in 5-20 minutes. It may take longer before your memory fully returns.

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.

Questions you may like to ask the Anaesthetist

- Who will give my anaesthetic?
- What type of anaesthetic do you recommend?
- Have you often used this type of anaesthetic?
- What are the risks of this type of anaesthetic?
- Do I have any special risks?
- How will I feel afterwards?
- Do I need to make any special arrangements at home?



Useful organisations

Royal College of Anaesthetists

Churchill House
35 Red Lion Square
London, WC1R 4SG
Phone: + 44 20 7092 1500
Fax: + 44 20 7092 1730
Email: info@rcoa.ac.uk
Website: www.rcoa.ac.uk

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

Association of Anaesthetists of Great Britain and Ireland

21 Portland Place
London WC1B 1PY
Phone: +44 20 7631 1650
Fax: +44 20 7631 4352
Email: info@aagbi.org
Website: www.aagbi.org

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

The European Society of Regional Anaesthesia and Pain Therapy

c/o Department of Anaesthetics,
The Alexandra Hospital
Woodrow Drive Redditch
Worcestershire B98 7UB
Tel/Fax: +44 1527 512047
Website: www.esraeurope.org

This organisation works to further regional anaesthesia in Europe.

The Royal College of Anaesthetists welcomes suggestions to improve this leaflet. Please send any suggestions to the Patient Information Unit at info@rcoa.ac.uk.



For further information on the extensive range of treatments and services we offer at New Victoria Hospital, please visit our website.

www.newvictoria.co.uk

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New Victoria Hospital is accredited for the quality of its service with CHKS Healthcare Accreditation and Quality Unit and is certified ISO 9001:2015.