



The anaesthetist

Anaesthetists are doctors who have had specialist training in anaesthesia.

Your anaesthetist is responsible for:

- assessing whether you are fit enough to have the anaesthetic for your operation
 - talking to you about which type of anaesthetic might be best and getting your permission (consent) for it
 - giving the anaesthetic and organising pain control afterwards
 - looking after you immediately after the operation in the recovery room or in an intensive care unit
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What is anaesthesia?

The word anaesthesia means 'loss of sensation'. It can involve a simple local anaesthetic injection which numbs a small part of the body, such as a finger or around a tooth. It can also involve using powerful drugs which cause unconsciousness.

These drugs also affect the function of the heart, the lungs and the circulation. As a result, general anaesthesia is only given under the close supervision of an anaesthetist, who is trained to consider the best way to give you an effective anaesthetic but also to keep you safe and well.

The drugs used in anaesthesia work by blocking the signals that pass along your nerves to your brain. When the drugs wear off, you start to feel normal sensation again.

Types of anaesthesia

Local anaesthesia

A local anaesthetic numbs a small part of the body. It is used when the nerves can be easily reached by drops, sprays, ointments or injections. You stay conscious, but free from pain.

Common examples of surgery under local anaesthetic are having teeth removed and some common operations on the eye.

Regional anaesthesia

This is when local anaesthetic is injected near to the nerves which supply a larger or deeper area of the body. The area of the body affected becomes numb.

Spinal and epidural anaesthetics:

These are the most common regional anaesthetics. These injections can be used for operations on the lower body, such as Caesarean section, bladder operations, or replacing a hip. You stay conscious, but free from pain.

Other types of regional anaesthetic:



Other regional anaesthetics involve an injection placed near to a nerve or group of nerves, for example in the arm or leg. This is often called a 'nerve block'. This can allow you to have the operation without a general anaesthetic.

Nerve blocks are also useful for pain relief after the operation, as the area will stay numb for several hours.

Sedation

Sedation involves using small amounts of anaesthetic drugs to produce a 'sleep-like' state. It makes you physically and mentally relaxed, but not unconscious. Many people having a local or regional anaesthetic do not want to be awake for surgery. They choose to have sedation as well.

If you have sedation, you may remember little or nothing about the operation or procedure. However, sedation does not guarantee that you will have no memory of the operation. Only a general anaesthetic can do that.

General anaesthesia

General anaesthesia is a state of controlled unconsciousness during which you feel nothing. You will have no memory of what happens while you are anaesthetised. A general anaesthetic is essential for a very wide range of operations. This includes all major operations on the heart or lungs or in the abdomen, and most operations on the brain or the major arteries. It is also normally needed for laparoscopic (keyhole) operations on the abdomen.

Anaesthetic drugs are injected into a vein, or anaesthetic gases are given for the patient to breathe. These drugs stop the brain from responding to sensory messages travelling from nerves in the body.

Anaesthetic unconsciousness is different from a natural sleep. You cannot be woken from an anaesthetic until the drugs are stopped and their effects wear off. While you are unconscious, the team in theatre look after you with great care.

Your anaesthetist stays near to you all the time.

Combinations

Anaesthetic techniques are often combined. For example, a regional anaesthetic may be given for pain relief afterwards, and a general anaesthetic makes sure you remember nothing.

Preparing for an operation

As soon as you know that you may be having an operation, it is helpful to think about how you can be as healthy and fit as possible. The time that you have to prepare will vary depending on the reason for the operation. If your operation is not too urgent, you can ask for extra time to get fit, if you want to. If your operation is an emergency, your doctors and nurses will give you good care in the condition you are in.



Medical problems

If you have a long-term condition, such as diabetes, asthma or bronchitis, heart problems or high blood pressure, you should make sure you are as well as possible before your operation. If you think you could make some improvement, you can ask your GP for an extra check-up. You should do this as soon as you know that you are having an operation.

Smoking

If you smoke, you should consider giving up before your operation. Smoking reduces the amount of oxygen in your blood and increases the risk of breathing and heart problems during and after the operation. Your surgical wound will heal more slowly and be more likely to get infected if you smoke.

On average, smokers stay in hospital longer than non-smokers. If you plan to quit smoking, it is a good idea to get help from a counsellor or support service. Your GP will be able to give you contact details for services in your area. You are four times more likely to give up successfully if you have this kind of help.

Your weight

Many of the risks of having an operation are increased if you are very overweight. Your GP can give you advice about weight loss and put you in touch with an organisation that can help. Slow, supervised weight loss is likely to be most successful.

Alcohol

If you drink more than the recommended amount, you should cut down before an operation.

Your teeth

Ideally, loose teeth should be secured before an anaesthetic. This reduces as far as possible the chance of any damage to your teeth. On the day of your operation, your anaesthetist will want to know which teeth are loose or have crowns or a bridge.

Fitness testing before an operation

Your anaesthesiologist may ask you to do a fitness test before you decide that you will have the operation. A fitness test gives information about how risky the operation is for you. This helps you decide whether an operation is right for you.

There may be other less risky treatments that would be better for you. The test also helps your surgeon and anaesthesiologist decide how best to look after you during and after the operation.



The fitness test is usually done on a stationary cycle. You are asked to wear a mask so the team can measure the oxygen that you use and the carbon dioxide that you breathe out. If you cannot turn the pedals due to problems with your legs, it may be possible to use a machine that you turn with your arms.

Sometimes the exercise test team will suggest that an activity programme designed to improve fitness would help you get through your operation safely. This would only be if the operation can be safely delayed. Your surgeon would help you arrange this.

In the few days before your operation

Medicines

You should continue to take your medicines up to and including the day of the operation unless you are told not to. Please carefully follow the instructions you have been given in the pre-assessment clinic.

Please look out for specific instructions if you take:

- drugs to thin your blood (for example, warfarin, dabigatran, rivaroxaban, clopidogrel, aspirin);
- drugs for diabetes;
- all herbal remedies; and
- some blood-pressure pills.

Taking a shower

Some hospitals give patients a disinfecting shower gel to use for several days before the operation. It helps prevent serious infections such as MRSA. You should use this on your body and hair.

On the day of your operation

Nothing to eat or drink

The hospital should give you clear instructions about eating and drinking, which you should follow carefully.

You may be given:

- a time to stop eating, or drinking anything except water
- a time to stop drinking water. Please have a normal size glass of water just before this time.



The reason is that if there is food or liquid in your stomach during your anaesthetic, it could come up into the back of your throat and then go into your lungs. This would cause choking, or serious damage to your lungs.

In an emergency, when people have not had time to stop eating and drinking, an anaesthetic can be given safely using a different technique.

Normal medicines

If you are asked to take your normal medicines, you can do so with a small sip of water at any time.

If you feel unwell on the day of your operation

You should phone the ward that is expecting you and ask for their advice.

Jewellery

It is best to leave most jewellery at home.

Will my operation be cancelled?

Very occasionally, your anaesthetist may find something about your health which is not expected. They might recommend that your operation is delayed until the problem has been reviewed or treated. This will be discussed with your surgeon.

In the anaesthetic room

Monitors

The anaesthetist will attach you to monitoring equipment, which allows them to closely follow your wellbeing during your operation.

Heart monitor

Sticky patches will be placed on your chest which give a heart tracing on the screen.

Blood pressure

A cuff is placed around your arm which is usually set to read your blood pressure every five minutes or less.

Oxygen levels

A peg with a red light inside it is placed on your finger or toe. This records your oxygen level continuously.



Other monitors may be used for complicated surgery.

All this information is passed to the screen so the anaesthesiologist can quickly see that you are responding well to the anaesthetic.

Setting up your cannula

Your anaesthesiologist will need to give you drugs into a vein.

They will do this through a small plastic tube placed in the vein. This is called a cannula.

A needle is used to put the cannula into a vein on the back of your hand or in your arm. The anaesthetist will use a tourniquet (tight band) around the arm, to make the vein more obvious. Often the anaesthetic practitioner will hold or squeeze the arm instead of using a tourniquet.
