



Your child's general anaesthetic

This leaflet explains what to expect when your child comes into hospital to have an operation with a general anaesthetic. It has been written by anaesthetists, working together with patient representatives and parents.

Anaesthesia and anaesthetists

A general anaesthetic ensures that your child is unconscious and free of pain during an operation or procedure.

Anaesthetists are specialist doctors who give the anaesthetic and look after the health of your child during surgery and recovery. They are also closely involved with your child's pain relief after surgery.

Anaesthetics are the drugs that are used to start and maintain anaesthesia.

- Some anaesthetics start with an injection into a vein using a plastic tube called a cannula, but may be continued by breathing a gas.
- Other anaesthetics start with breathing a gas and then a cannula will be put in when your child is asleep.

The anaesthetist or pre-assessment nurse will usually ask you about your child's previous experiences with anaesthetics or injections. They will also usually discuss methods of how the anaesthetic may be given, and whether you and your child have a preference. Often there are medical reasons why things may have to be done in a certain way and they will talk with you about the way they would prefer to start the anaesthetic, and (the reasons) why. Your wishes and those of your child are very important.

After discussion with the anaesthetist, one of the plans discussed with you will normally be followed. Sometimes the expected order may change, depending upon the reaction and response of your child at the critical time.

You will be able to raise any issues you have on the day of surgery or before.

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You may also meet Anaesthesia Associates who are highly trained healthcare professionals. You can read more about their role and the anaesthesia team on our website:

 rcoa.ac.uk/patientinfo/anaesthesia-team

Preparing your child

There are several things that you can do to prepare your child for coming into hospital.

Unless your child is very young, you should try and explain:

- that they are going into hospital
- that they will be having an operation or investigation
- some basic information about what will happen to them when they are in hospital.

The best time to provide this information will differ between children. Preschool children probably only need to know the day before. Older children may need more time.

There are also leaflets for children of different ages available to download from the *Information for children, parents and carers* pages on the College website:

 rcoa.ac.uk/childrensinfo

- *Rees Bear has an anaesthetic* (ages 3–6 years with an adult reader).
- *Davy the detective: finding out about anaesthetics* (ages 7–11 years)
- *General anaesthesia: a brief guide for young people* (age 12 years plus)

My Daycase operation: an Easy Read and accessible resources are also available here:

rcoa.ac.uk/patientinfo/easyread

 There is also an animation called *A Little Deep Sleep – a Family Guide to Anaesthetics* which is helpful for children up to the age of 12 years old: (vimeo.com/138062201).

Some hospitals offer you and your child the chance to visit the children's surgery ward before the day of the operation. This is a good way to help prepare your child and reduce anxiety. Many hospitals have a play-therapy team who can give explanations and encourage discussion through play.

Some ideas of what to say to your child

- Explain that the operation or test will help your child to get better or partially better, depending on their circumstances.
- Encourage your child to talk about the operation and ask questions. Books, games and stories can help. There are resources such as colouring sheets available from the College website: rcoa.ac.uk/childrensinfo
- Tell your child about timing. When will they have the operation or investigation? How long will their stay in hospital be (if you know this)?

 If your child will be staying in hospital overnight, let them know if you will be able to stay too. If you are unsure whether this is possible, you can call the hospital to confirm.

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Your nurse can advise you on what you should take into hospital, but please bring any regular medication that your child usually takes in the original packaging, pyjamas, a toothbrush, hairbrush, change of underwear or nappies and a favourite teddy or toy. Children often enjoy deciding what to pack but it's best not to include too many toys.

Mobile phones and tablets can be very useful but remember to bring your charger and headphones.

You should stock up on painkillers such as paracetamol and ibuprofen ready for when your child returns home. Your hospital will advise you on how to take them.



Not well just before surgery?

You should phone the hospital if your child develops a significant cough or cold within two weeks of the operation, or diarrhoea or vomiting within a few days of the day of the operation. It may be necessary to delay the operation until your child is better.

Coughs and colds can make children, especially those who are younger, more likely to have difficulties with their breathing under the anaesthetic. They can also put children at higher risk of chest infection. It is therefore important that you make the hospital staff aware if your child has been unwell.

Please also let staff at the hospital know if your child has been in recent contact with chicken pox, measles or other infections.

Vaccinations are an important medical intervention and we encourage all parents to follow the NHS vaccination guidelines on the NHS website: [nhs.uk/conditions/vaccinations](https://www.nhs.uk/conditions/vaccinations)

Recent vaccination is not normally a problem for children having an anaesthetic unless they develop a high temperature just before they are due to have surgery, in which case it is sometimes better to delay surgery. This is very unusual, so we would advise parents to continue with planned vaccinations and not postpone them because of planned surgery.

Preoperative assessment clinic/telephone screening

A nurse from the hospital may arrange to ring you to find out some details of your child's health and medication before the day of surgery. This also allows them time to organise extra tests or equipment, if needed, before the day of the operation.

Many hospitals will invite children, especially those with longer-term illnesses or having major surgery, to attend a preoperative assessment clinic. Here they will ask about your child's health, medication and allergies. They will take a swab from the skin (the skin is gently rubbed with a soft cotton stick) to check for any infections before surgery and do any blood tests that may be necessary. They may be able to show you and your child the ward where they will go and they will give you information about your child's surgery. You may also meet an anaesthetist who can discuss any options for the anaesthetic and any particular risks.

On the day of your child's operation

The hospital should give you clear instructions about when to stop your child eating and drinking. It is important for you and your child to follow these instructions. If there is food or liquid in your child's stomach during the anaesthetic, it could come up into the back of the throat and go down into their lungs.

Children are much more comfortable if they don't have to wait longer than necessary without food and drink.

The following are commonly agreed timings for when you can give your child something to eat or drink before non-urgent surgery, but please follow the hospital's instructions given to you, as they may be different.

- Children can have a light meal and/or a glass of milk six hours before surgery. After that they must not eat anything including sweets and should avoid chewing gum.
- Breastfed babies can have breast milk up to four hours before their surgery.
- Bottle-fed babies can have formula milk up to six hours before surgery (please check with your hospital for any different instructions for very small or premature babies).
- Children should continue to drink water or very dilute squash until one hour before their surgery. This helps them to stay well hydrated and comfortable.



Some units allow or encourage the child to drink something on arrival in the unit.

If your child has eaten food too recently, the operation will be delayed or postponed until another day.

Your child should take any medicines as instructed on the day of surgery.

When you arrive at the hospital your child will be weighed and measured (unless this was already done at a previous appointment). A nurse will check their temperature, pulse and breathing rate and measure their oxygen levels and blood pressure.

It is standard practice to do a pregnancy test for any girl over the age of 12 years old by collecting a urine sample. Please see the **Royal College of Paediatrics and Child Health** website for more information:



rcpch.ac.uk/resources/pre-procedure-pregnancy-checking-under-16s-guidance-clinicians

The nurse will ask about medications and allergies and will put two identity bands on your child's wrist or ankle. In some hospitals, they will put on an extra band, or one of a different colour, if they have any allergies.

An anaesthetist will visit you before the procedure to discuss your child's anaesthetic.

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The anaesthetist needs to find out about your child's general health, including:

- previous experiences of anaesthesia
- any medicines your child is taking
- any allergies they have
- any recent coughs, colds or diarrhoea and vomiting.

If your child or other family members have had any previous difficulties with an anaesthetic, it is really important to tell the anaesthetist and bring any information you or a relative has.

This is a good time to talk about any particular concerns you or your child have about the anaesthetic. You may find it helpful to make a list of questions you want to ask.

Depending on the type of surgery that your child is having, the anaesthetist may also be able to numb nerves with a local anaesthetic injection while your child is asleep to help with their pain relief afterwards.

They may also need to use extra drips or cannulas. They will discuss with you the reasons for doing this and the importance of this equipment for keeping your child safe while they are asleep and comfortable when they wake up.

Delaying the operation or investigation

Occasionally during the assessment of your child, the anaesthetist may learn something about your child that means it would be safer not to do the procedure on that day. If this happens, they will advise if and when they expect it will be safe to go ahead with the procedure.

Premedication ('pre-med')

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

The anaesthetist may discuss giving sedative medication to help your child relax. However, these are not routinely given as they can make children drowsy after the operation. Pain relief drugs may also be given as a pre-med, or the anaesthetist may suggest an extra treatment for conditions such as asthma.

Most pre-meds are given as liquid medicines.

Local anaesthetic cream

Nearly all children will have 'magic cream' put on the back of their hands and covered with a clear dressing. This is sometimes called 'Ametop', 'EMLA' or another trade name. It is a local anaesthetic cream which takes 30–60 minutes to work.

This cream reduces the sharp pain when a cannula is placed in your child's hand or arm. It works well in reducing the pain in nine out of ten children.

If the cream cannot be used, a local anaesthetic cold spray can be used instead to numb the area.

Going to theatre

Most hospitals provide colourful gowns for your child to wear when going to the operating theatre. Although your child may be able to wear their own clothes or pyjamas. They can wear a nappy or pull ups as needed. Your nurse will advise you what underwear can be worn.

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Your child may walk to the anaesthetic room, or may travel on a bed, wheelchair or hospital trolley, or be carried. Some units offer more fun types of transport. In some hospitals they may offer a ride in an electric car.

In the anaesthetic room

A nurse or health care practitioner such as a play specialist from the ward will accompany you and your child to the anaesthetic room. Your child will be able to take a toy or comforter. Mobile phones or tablets can be particularly useful to distract children with games or favourite films.



If you wish, you will be welcome to stay with your child to comfort them while they are given the anaesthetic. There are very few circumstances when this will not be possible. As soon as your child is asleep, a member of staff will take you out of the theatre area to allow the anaesthetic team to care for your child.

If you are very anxious yourself, you **do not** have to accompany your child to the anaesthetic room. Another adult family member or a ward nurse or play therapist could go along instead.

The anaesthetic may be started while your child is lying on a trolley. Smaller children may be anaesthetised sitting on your lap. Staff would then lift them on to the trolley, perhaps with your help.

The anaesthetist will use either gas from a facemask or tubing, or an injection through a cannula to start the anaesthetic. This will have been discussed with you beforehand, although sometimes the plan may need to change if your child is not able to cooperate.

Most older children will have an injection through a cannula. If a cannula is used, your child will normally become unconscious and floppy very quickly. Sometimes the injection can feel cool or prickly in the arm. The anaesthetist will then use a mask to continue the anaesthetic and provide extra oxygen for safety.

If the anaesthetic is started with gas, the anaesthetist generally uses a mask to give the gas, or they may pass the gas through a cupped hand gently placed over your child's nose and mouth. Anaesthetic gases smell similar to felt-tip pens.

It normally takes a little while (anything from a few seconds to a couple of minutes) for the anaesthetic to take effect. It is quite normal for the child to become restless during this time or for their breathing to sound different. They may even snore loudly. Staff will help you hold your child gently but firmly.

You will then be asked to leave the anaesthetic room. A member of staff will walk with you out of theatre.

Once your child is anaesthetised, the anaesthetist will put in a cannula so they can give pain relief and anaesthetic drugs that are needed.

What happens next?

Your child will be taken into the operating theatre to have the operation or procedure.

The anaesthetist stays with your child throughout the procedure and will monitor your child's blood pressure, pulse, breathing and oxygen levels closely, ensuring that they are safe and fully anaesthetised.

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Now is a good time to go and have something to eat and drink yourself, but let the staff know that you are going and provide them with a mobile phone number to contact you on.



After the operation

In the recovery room

Most children wake up in a recovery room. The anaesthetist is close by and can help if needed. They will have a bandage over their cannula to keep it safe, and out of sight, while they wake up.

Each child is cared for by a specialist nurse or other suitably qualified practitioner who will make sure your child is comfortable. They will give extra pain relief and anti-sickness medicines if needed. You will be called to be with your child at an appropriate point during the waking up process.

Distress on waking

Some children show some signs of confusion and/or distress when they wake up. This is more likely in younger children.

Very few children become very agitated. They may cry and roll about or wave their arms and legs. This behaviour may last around 30 minutes, and occasionally longer. The recovery room staff are experienced at looking after children at this time. They will consider whether more pain relief will help. They will advise you on how best to comfort and reassure your child.

If a child wakes in distress this is naturally worrying to parents. It would be worth telling your anaesthetist if your child has experienced this type of distress in the past so that they can discuss ways that it might be avoided in the future.

Pain relief

Pain relieving drugs, and sometimes local anaesthetic injections, are given during the anaesthetic to ensure that your child wakes up as comfortable as possible. The type of pain relief will depend on the procedure.

The anaesthetist, surgeon and/or ward staff will talk to you about the best type of pain relief for your child.

Going home

It is often possible for your child to return home on the day of the operation or procedure if the surgeon and anaesthetist are happy that this is a safe option and that your child is recovering well.

You will be given advice about how to give pain relief medicines at home. You should follow this advice carefully.

Some children feel sick or may be sick on the journey home. It is useful to be prepared!

If you are taking your child home on the day of the operation, you will be given a contact number to ring if you have concerns about your child at home.

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Afterwards

Some children find a hospital visit worrying. A few children do not sleep well after a stay in hospital. They may be clingy and worried about leaving you. Their behaviour may be more difficult than before. This will usually return to normal within three to four weeks.

Risks and side effects associated with your child's anaesthetic

Serious problems are uncommon with modern anaesthetics. Most children recover quickly and are soon back to normal after their operation and anaesthetic. Many children may feel sick or have a sore throat. These usually last a short time. Medicines to treat vomiting and sickness are available and often given.

For a child in good health having minor surgery, it is very common (more than 1 in 10 children) to have:

- a headache or a sore throat
- sickness or dizziness
- agitation on waking.

Looking at rarer complications, approximately 1 in 10,000 children develops a serious allergic reaction to the anaesthetic.

The risk of death from anaesthesia for healthy children having minor or moderate non-emergency surgery is probably less than 1 in 100,000. Most of the deaths that occur around the time of surgery are not directly caused by the anaesthetic but by other reasons connected with the health of an individual or the operation they are having.



To read about general risks associated with having an anaesthetic or an anaesthetic procedure, please see the risk section on our website: rcoa.ac.uk/patientinfo/risks/risk-leaflets

Risk explained

People vary in how they interpret words and numbers. This scale is provided to help.



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In modern anaesthesia, serious problems are uncommon.

The likelihood of a serious risk or complication is higher if your child has a serious illness, a complicated medical background, or is under four years of age and/or having a major operation.

Children with significant illness or babies having surgery sometimes have particular risks associated with the anaesthetic. The anaesthetist can discuss this with you before the operation. Modern equipment, training and drugs have made having an anaesthetic very safe, although all risk cannot be removed completely.

There is ongoing research into the possible long-term effects of anaesthesia in babies and very young children. At present there is no strong evidence that anaesthetics are harmful to development, and it is important to consider that any risk should be balanced against the overall importance of providing anaesthesia for a procedure or surgery.

Information on critical events in paediatric anaesthesia can be found online:

Incidence of severe critical events in paediatric anaesthesia in the United Kingdom: secondary analysis of the anaesthesia practice in children observational trial (APRICOT study)

<https://onlinelibrary.wiley.com/doi/abs/10.1111/anae.14520>

You may wish to look at the following for further information from the Association of Paediatric Anaesthetists of Great Britain and Ireland: apagbi.org.uk/guidelines or

apagbi.org.uk/children-and-young-people

Information about the general risks of having an anaesthetic for older children and young people is available on the College website: rcoa.ac.uk/patientinfo/risk

Information about pain relief can be found in our leaflet *Anaesthesia explained* which is available from our website: rcoa.ac.uk/documents/anaesthesia-explained

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

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Tell us what you think

We welcome suggestions to improve this leaflet.

If you have any comments that you would like to make, please email them to:

patientinformation@rcoa.ac.uk

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