

# Your Child's General Anaesthetic for a Scan

Information for Parents & Guardians of  
Children Having an MRI or CT Scan Under  
General Anaesthesia

University Hospitals Bristol



NHS Foundation Trust

Patient Information Service

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This leaflet explains what to expect when your child has a general anaesthetic for a CT or an MRI scan. It also discusses the risks involved. If you have any questions, you should ask your child's anaesthetist when you meet him or her before the anaesthetic. Some people find it helpful to write down questions they think of in advance. You can also contact the anaesthetic department before coming into hospital.

Contact details, for people and organisations who can offer help or advice, are all at the back of this leaflet.

## Why does my child need an anaesthetic for a scan?

- Having a scan involves your child lying very still on a moving table, which carries him or her inside the scanner. The scanner is shaped like a short tunnel, and some children may find being in such an enclosed space frightening. MRI scanners, in particular, are quite noisy. While many scans last only a few minutes, others take over an hour, and children may find it impossible to lie perfectly still for that long. Sometimes your child will need to hold his/her breath for a few seconds.
- Many children (and most adults) have scans done while awake, without problems. This is the safest way, if it is possible. Scans are not painful. Newborn babies can be fed and wrapped up comfortably, and will often fall asleep for long enough to have the scan done. If your child is having an MRI, you are welcome to bring in a CD for him or her to listen to during the scan. Even quite young children can lie still for their scans, as long as they know what to expect. Nurses and play therapists can be very helpful in preparing a child for this.
- However, the doctor arranging your child's scan might ask for it to be done under a general anaesthetic, if he or she thinks that the scan is an important investigation, and that trying to do it awake wouldn't work.

## Contact list:

### **Anaesthetic Department**

Bristol Royal Hospital for Children

Telephone: **0117 342 8649**

### **Patient Advice and Liaison Service**

Telephone: **0117 342 8065**

Email: **pals@UHBristol.nhs.uk**

### **Play Therapy Department**

Telephone: **0117 342 8194**

### **Radiology Department**

Telephone: **0117 342 8484**

### **Royal College of Anaesthetists**

The Patient Information Unit

Churchill House

35 Red Lion Square

London WC1R 4SG

Email: **admin@youranaesthetic.info**

## The consent process and consent form

- The doctor arranging the scan will ask you to sign a consent form before hand. The form will mention the serious risks mentioned above. By signing the form, you are saying that you understand the reason for the scan, and the need for your child to have an anaesthetic.
- In most cases, the scan will be looking for important information for your child's care: either to make or rule out an important diagnosis, or to direct his/her treatment. If having an anaesthetic is the only way to get that information, then it may well be worth taking these risks.
- However, if you have any doubts or further questions about the scan, the reason it is being done or the need for an anaesthetic, you are welcome to discuss it further with your doctor and anaesthetist before deciding whether or not to go ahead.

## Contacts

The medical staff and organisations listed opposite will be happy to be contacted if you have any unanswered questions or concerns.

In addition, the hospital's Patient Advice and Liaison Service (PALS) exists to provide free help and support to help you get the best from NHS services.

## What is a general anaesthetic?

- General anaesthesia is a state of controlled unconsciousness. Anaesthetics are the drugs (gases and injections) that are used to provide anaesthesia.

## Who will give the anaesthetic?

- Anaesthetics are only given by anaesthetists, in the UK. They are specialist doctors who have trained specifically to care for patients under anaesthesia. An anaesthetist will monitor your child at all times during the anaesthetic; and all anaesthetics for scans in the children's hospital are overseen by a consultant anaesthetist.



## Preparation

- Most children come from home to have their scan, and can go home again afterwards. A few are already in hospital when their scan is arranged.
- There are many things that you can do to prepare your child for coming into hospital. All children (except infants too young to understand) should be told that they are going into hospital, that they will be having a scan, and some basic information about what will happen to them when they are in hospital. Please let us know in advance any special requirements your child has and we will do whatever we can to help.

**Please phone the hospital if your child develops a severe cough or cold, or has contact with chicken pox shortly before the day of the scan.**

## Nothing to eat and drink / fasting / 'nil by mouth'

- You will be sent a letter giving instructions about fasting. It is important for your child to follow these. 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 damage his or her lungs.
- If your child is coming into hospital on the same day as the scan, these are the latest times before the anaesthetic start time that you should give your child anything to eat or drink:

<b>6 hours before</b> 	<b>your child can have a light meal, or any kind of drink. Please do not allow your child to chew gum after this time either.</b>
<b>4 hours before</b>	<b>babies under 1 year old can have formula milk.</b>
<b>3 hours before</b>	<b>babies under 1 year old can have breast milk.</b>
<b>2 hours before</b> 	<b>all children and babies can have a drink of water or dilute cordial, but not a fizzy drink.</b>

## Timing of the scan

- Planned scans are done during a session which lasts half a day. The letter you will be sent should be clear about the time your child should start fasting. However, the exact time of the scan may change on the day and is sometimes earlier than planned. If your child has to wait more than 2 hours for the scan, the ward staff may offer him or her some more water/cordial to drink.

My child has special medical problems, or is suspected to have a serious health problem.

## Are there any extra risks with the anaesthetic?

- The risk for your child will be higher than those figures quoted previously. Some children have very complex or rare health problems, which may not even be known about at the time they have their first ever anaesthetic. Indeed, some are having scans to try to diagnose such serious problems.
- The conditions which worry anaesthetists most are severe heart or breathing disorders, and a few rare genetic conditions. Children with these problems may need to be observed in hospital after having an anaesthetic for any reason.
- Your anaesthetist will be happy to discuss the particular risks in your child's case. Sometimes the doctor arranging the scan will discuss your child's case with the anaesthetist beforehand, so that special arrangements can be made.

## Delaying the operation or investigation

- Occasionally the anaesthetist may learn something about your child that means it would be safer not to do the procedure on that day.

**If something important has changed about your child's condition since the scan was planned with your doctor: please get in touch with the doctor who arranged the scan. The scan might no longer be necessary, might need to be done more urgently, or a different test altogether might now be necessary.**

## Allergic reactions

- Most reactions to drugs given during anaesthesia are not life-threatening, and occur in less than 1 child in 100.
- Life-threatening allergies are thought to affect around 1 child in 20,000. (By comparison, there are about 90,000 children in the whole of Bristol.)

## Rare risks

- A few cases of serious problems as a result of anaesthesia in children are reported every year in the UK. Some of these occur during anaesthesia for minor procedures such as scans.
- The causes can vary widely, but include serious breathing problems, serious allergic drug reactions, major equipment failure, and accidents. Because these problems are so infrequent, and spread around the country, it is very hard to give accurate figures for how often they occur.
- Even serious incidents are often successfully dealt with, without permanent harm coming to the patient. However, rarely, the end results can be catastrophic, and include death and permanent brain damage.
- We estimate the risk of such a life-threatening problem occurring in a previously healthy child to be 1 child in 400,000. (By comparison, there are about 900,000 children in South West England.)

## A pre-operative visit

- An anaesthetist will visit you on the ward before the procedure to discuss your child's anaesthetic. This is a good time to talk about any previous experiences your child has had with injections or hospitals, or any particular concerns you have about this hospital visit. For practical reasons, the anaesthetist who comes to see you on the ward may not always be the same one who gives your child's anaesthetic, but the information you give them will be passed on.

## How will my child be given the anaesthetic?

Your child can either have:

- An injection through a cannula. (A cannula is a thin plastic tube placed, using a needle, into a vein on the back of the hand, the arm, or occasionally the foot. The needle is removed once the cannula is in place.)
- Anaesthetic gas to breathe, through a small face mask. A cannula is then put in while your child is asleep.

If a cannula is planned, anaesthetic cream is usually put on in advance so as to make the skin numb and make the needle less sore. The cream takes at least half an hour to work, so please do not remove it.

The anaesthetist will discuss these options with you and your child, so that you have an agreed plan before the anaesthetic starts.

## Can I be with my child while the anaesthetic is being given?

- The anaesthetic is started in the anaesthetic room which is next to the scanner. We encourage a parent or guardian to be with the child at the start. For smaller children, the anaesthetic may be started with your child on your lap. As soon as your child becomes unconscious, he or she is lifted onto the anaesthetic trolley, and we ask you to leave and return to the waiting room.

## What happens next?

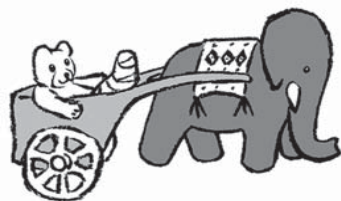
- Your child is transferred to the scan room, and then at the end, to the recovery cubicle where he or she will wake up. Some children wake very quickly; while for others, recovery from the anaesthetic takes longer. Your child will usually be conscious within about fifteen minutes of the end of the scan, and we will call you through to the recovery area as he or she is waking up.

## How will my child feel when he/she wakes up?

- Many children are a bit confused and tearful when they first wake up after an anaesthetic. It is common for children to feel dizzy for a few hours afterwards. Most children can have fluids to drink as soon as they feel like it, and then food a bit later.

## How soon will I be able to take my child home?

- The ward nurses will advise you, but in general, most children should be ready to go home about an hour and a half after getting back to the ward.



## Risks and safety

How safe is general anaesthesia for scans, and what are the risks?

- With modern anaesthesia, serious problems are uncommon. However, there is **always** some risk with any medical procedure, including anaesthesia.
- Modern equipment, training and drugs have all improved the safety of anaesthesia in recent years. We take a great many safety precautions in every case, to try to make the risks as small as possible. You can expect your child's anaesthetic care to be up to the standards set by the Royal College of Anaesthetists, and the Association of Anaesthetists of Great Britain and Ireland. These are the organisations responsible for training, safety and standards in anaesthesia in the UK.
- Estimating these risks for your child's particular case is very difficult. The figures given below apply to children with no major health problems.
- Throughout the whole of life, an individual is at least 100 times more likely to suffer serious injury or death in a road traffic accident than as a result of anaesthesia.

## The common risks

- These are generally minor side effects of anaesthesia, and almost always get better quickly, and without any treatment at all.
- Feeling dizzy, or having a headache or sore throat would be examples of this.
- Older children may feel sick, and medication will be available to help if necessary.
- These problems occur in about 1 child in 10 (so, if we gave an anaesthetic to a whole class of healthy schoolchildren, 3 or 4 might have these kinds of problems).