



York Teaching Hospital
NHS Foundation Trust

General Anaesthesia for Magnetic Resonance Imaging (MRI)

Information for patients, relatives and carers

① For more information, please contact:

Children's Assessment Unit, Ward 18

Tel: 01904 726018

The York Hospital

Wigginton Road, York, YO31 8HE

Caring with pride

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What is General Anaesthesia?

General anaesthesia is a state of controlled unconsciousness. It allows procedures to be carried out without the individual experiencing pain or discomfort. It is also used to enable patients to lie very still for certain investigations, such as Magnetic Resonance Imaging (MRI) scans.

Anaesthetics are administered as either gases or injections by specialist doctors called anaesthetists. The doctors also continually monitor the heart and breathing function of people having a general anaesthetic.

Preparation

There are several things you can do before coming into the hospital to make the experience less stressful for you and your child. The extent of what you tell them will depend on their ability to understand but as a rule, all children should be told:

- ✓ They are going into hospital
- ✓ They are having an MRI scan
- ✓ Basic information about what will happen on the day:
You can find that information in this leaflet and the leaflet “MRI scanning for children under a general anaesthetic”

Sometimes it is useful to explain the procedure to your child through play.

Try to talk about the MRI scan in simple terms and encourage your child to ask questions. Explain the reason for them having a scan.

Fasting

In order for your child to have a general anaesthetic, they must have an empty stomach. This helps to avoid complications of aspiration (inhaling food particles) while they are asleep which may damage their lungs. It is very important they follow these guidelines.

No food, milk, thickened fluids, fizzy drinks, fresh fruit juices and baby formula feed for at least **six** hours before admission

No breast milk for at least **four** hours before admission

Please encourage your child to drink clear fluids (water or diluted non-fizzy squash) until their admission time as clear fluid is quickly digested from their stomach. It is important your child remains well hydrated for their own comfort. This will help their recovery.

For example, if your child is being admitted at **8am**, this will mean nothing to eat after **2am** with clear fluids allowed up until **8am**.

Occasionally, your child will need to take certain medications which cannot be stopped. If this is the case, please allow your child to take them with water or diluted squash.

If you are not sure of the guidelines, please contact the Children's Admissions Unit (ward 18) who will advise you further.

On the day of the scan

Your child will be admitted onto the Day Unit by a nurse. You can be with them on the ward.

The nurse will ask you to complete a questionnaire. They also need to weigh your child and put local anaesthetic 'magic cream' onto your child's hands (see later). They may measure your child's heart rate, blood pressure and oxygen levels. We will also check your contact details around the same time.

An anaesthetist will visit you to discuss the anaesthetic. They will need to ask questions about your child's health and any medications. It is helpful to know about any previous anaesthetic experiences your child may have had. At this meeting they will explain about your child's anaesthetic for the scan and answer any questions you may have.

There is a playroom, but feel free to bring any small toys your child may like to have with them. We can only perform one scan at a time and your child will have to wait their turn so something familiar to play with may help.

Please be aware there can be several children in the waiting area of the ward.

When it is time for the scan, a nurse or play specialist will escort you and your child down to the MRI scanning room. They may wear their own clothes but there must not be any metal on them. The MRI scanner is a large magnet which can disrupt medical implants so for safety reasons you will be asked some questions at this point.

The anaesthetist and an 'ODP' (anaesthetic assistant) will meet you in a room next to the MRI machine where your child will be given the anaesthetic. You may stay with them until they are asleep after which the nurse will take you back to the ward.

Giving the anaesthetic

Young children will generally go to sleep sitting on your lap. Older children may need to sit on the bed but you can be next to them all the time. If possible, we may put a small peg on your child's finger or toe to monitor oxygen levels during the anaesthetic induction.

There are two methods of giving your child an anaesthetic. You may be able to help choose which method is used but sometimes the anaesthetist will advise that one method is more appropriate.

Anaesthetic Gases

Your child will breathe in a mixture of anaesthetic gas and oxygen to go off to sleep via a clear facemask. Anaesthetic gases are sweet smelling and not generally unpleasant but sometimes children find this new smell and the presence of a facemask a little overwhelming. This method can take a little longer for your child to go to sleep and they may appear restless as the anaesthetic starts to work. The anaesthetic team will talk you through this.

Intravenous Anaesthetic

The 'magic cream' put on your child's hand on the ward should numb the back of their hand. This can take at least an hour to work. The cream is taken off in the MRI department and a small needle is used to put a plastic tube (cannula) in a vein on the back of their hand while they are distracted. Once in place, the needle is removed and only a small plastic tube remains. Anaesthetic drugs are injected into this and will work very quickly.

Once your child is asleep, you will be taken back to the ward so the MRI scan can take place. During this time, your child's heart, breathing and oxygen levels will be continuously monitored. They will be kept asleep using anaesthetic gases.

Once the scan is complete, your child will be woken up in the MRI department by the anaesthetist and a specialist recovery nurse and then brought back to you on the ward. The scan itself is not a painful procedure but children can feel a little disorientated on waking.

The duration of the scan can be quite variable but often children are in the MRI department for at least an hour. Once we know what scans your child requires we can give you more of an idea about timing.

After the scan and going home

Once back on the ward with you, your child will need to spend an hour or two recovering. They should not have any pain but occasionally they may have a sore throat or feel sick. There will be some medicine they can take if needed.

Once they are awake enough and able to tolerate eating and drinking the nurse will discharge them.

You will generally not receive the results of the scan on the same day as specialists are required to look at each image individually and each scan produces many different images.

Side effects and complications

Serious problems with anaesthesia are uncommon with modern drugs and techniques and generally most children will recover very quickly. Some children may experience a sore throat or sickness immediately after the MRI scan which is often short lived.

Occasionally some children will suffer from disrupted sleep in the days following the anaesthetic.

Approximately one in 100 children will suffer a mild allergy to one of the medications used.

A serious allergy to the medication may be seen in one in 20,000 children. This is a very small risk and is equal to about one person in a small town.

Sometimes a pre-existing medical condition can have implications for the anaesthetic. This will be discussed with you by the anaesthetist at the pre-scan visit. Rarely this may result in delaying the scan for another day, for example if your child is unwell with a cold or temperature. This is for the safety of your child and if applicable, will be explained to you on the day.

Your child remains fully monitored for the duration of the anaesthetic to allow any complications to be detected as soon as possible.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

Dr Justine Heard, Consultant Anaesthetist,
The York Hospital, Wigginton Road, York, YO31 8HE,
telephone 01904 725399 or email
justine.heard@york.nhs.uk.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email
pals@york.nhs.uk.

An answer phone is available out of hours.

Please telephone or email if you
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language or format

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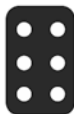
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