Anaesthesia for cardiac surgery

Your child has been scheduled to have cardiac surgery. During this complex surgery, your child will be cared for by a team of anaesthetists, nurses, perfusionists and physiologists. This fact sheet has information about anaesthesia care which is really about making sure your child is comfortable and safe for their operation.

What is general anaesthesia?

General anaesthesia is a way of making sure a child is more than just asleep. Medicines are used to make sure your child is unconscious so that they are not aware of what is happening or feeling pain. The doctor who looks after your child for the anaesthetic is called an anaesthetist.

What does the anaesthetic involve?

On the day of surgery you will meet members of the anaesthetic team looking after your child. Some patients will have a medicine before going to the anaesthesia room to start making them a little relaxed. All patients eventually end up in the anaesthesia room where the actual anaesthesia will start. This is often with a mask where your child breathes the medicines in. Sometimes the anaesthesia can be started through a cannula in a vein.

Once your child is receiving their anaesthetic and unaware of what is happening, the anaesthetic team will spend time setting things up to make sure all the right steps are being taken to keep your child comfortable and safe. This will include some of the following:

- Monitors will be used to keep a very close eye on your child. Some of these monitors involve placing sensors on the skin, but some involve putting in special tubes called cannulas and central lines.
- Other lines and tubes will be added so that we can deliver important care during the operation. For example a breathing tube will be put in so that we can provide the oxygen and air your child needs throughout the operation. Your child may also need types of cannulas that are useful for giving medicines and any fluids.

Sometimes during surgery part of keeping your child safe is asking the Blood Bank to provide fluid from blood donations so we can then give them to your child. We call these sorts of fluids “blood products”. The type of blood product used depends on what is happening at that time. Every one of these blood products is very carefully checked by the Blood Bank to make sure it is right for your child. The chance of complications from this sort of treatment is very low and we will only use what is needed.

For all of this time, your child’s anaesthetist will be making sure child is unaware of what is happening, and that they are receiving other medications to make sure they feel no pain. They will also focus on keeping your child safe. It does not matter how long the operation is, we will keep giving everything your child needs for anaesthesia until the surgeons have finished their work.

Your anaesthetist can explain these things in more detail. All you have to do is ask.
Why does my child need to fast?
It is important for anyone having an anaesthetic to have an empty stomach. If the stomach is full, there is a chance that during the anaesthetic whatever is in there could end up somewhere else like the lungs.

Before the day of the operation, the day surgery staff will call and give you times to stop eating and drinking. Generally this will mean:

- No solid food or milk for six hours before anaesthesia,
- Clear fluids that you can see through up to 1 hour before anaesthesia,
- For breastfeeding children, we usually request 4 hours with no feeds before anaesthesia. Formula feeds are thicker, so they are considered as “solids” for fasting.

Intensive care
After the operation, your child’s anaesthetist will take your child to the intensive care unit and hand care over to the team that works there. When you first visit your child, you may see a lot of the cannulas, tubes and monitors attached. They are all there so the intensive care team can continue to look after your child’s needs.

The medicine being used to keep your child comfortable will continue while they are brought to the intensive care unit and for the whole time they are there. The intensive care team will also use medicines to keep your child a bit relaxed and calm. This is not the same as the general anaesthetic, but they will help keep your child comfortable.

How safe is anaesthesia?
Modern anaesthesia is very safe. This operation is planned because the risk of anaesthesia and surgery is thought to be less than the risk of delaying or not doing your child’s operation. Your anaesthetist has had a lot of training to make sure the anaesthesia is effective and safe. So while no one could guarantee there is zero risk during an anaesthetic or surgery, an anaesthetist will be there continuously to keep an eye out for any complications. A fact sheet on specific anaesthesia-related effects on the brain is available (see below)

What else can I do?
Many parents find bringing their child for surgery challenging or are unsure what they should do. You have actually been preparing to be part of the perioperative team for the whole time you have been looking after your child. A few further things that may help your child on the day:

- Keep to those fasting times – it can be tricky but if your child does eat, surgery may be delayed.
- Talk to your child about the anaesthesia and surgery. We find that in most cases, kids are reassured when they know what is likely to happen on the day and there will be people looking after them to make sure things are great.
- Ask questions yourself – we enjoy answering them. Every bit of information and reassurance we can offer helps.
- Some parents like to come in to the anaesthetic room while their child’s anaesthetic starts. For most children over 6 months of age this is an option you can discuss with your anaesthetist.

Children’s painful procedures and operations (fact sheet)

Pain – the facts (fact sheet)

Statement on Anaesthesia-related neurotoxicity

Remember:

- Although open heart surgery is a major undertaking, the vast majority of infants and children undergo these big operations without any problems.
- While open-heart surgery carries significant risks, the risk of not having the surgery is greater than the risks of the surgery. The anaesthetic team is skilled and experienced, and they support this sort of surgery frequently. They are part of the larger team of surgeons, nurses and technicians who are all committed to looking after your child as if they were their own.