

PATIENT INFORMATION FOR GENERAL/REGIONAL ANAESTHESIA

GENERAL ANAESTHESIA (GA)

GENERAL ANAESTHESIA is administered either by giving medicine through a plastic tube inserted into your child's vein, or gas through a mask or breathing tube. This keeps your child asleep for the duration of surgery/ medical procedure. If your child is very anxious or fretful, some sedation may be given beforehand (pre-medication). In addition, painkillers and other medication may be given to facilitate surgery.

Are there any risks from GA?

GA is generally very safe today, even for a young child. In general, anaesthetic risks depend on your child's medical condition as well as type of surgery. Side effects are sometimes unavoidable but generally transient.

Common temporary side effects

- Headache, dizziness
- Nausea and vomiting
- Pain or bruising at injection sites
- Sore throat
- Drowsiness, short term memory loss
- Shivering or teeth-chattering
- Emergence Delirium: a restless and irritable recovery process during which your child may thrash about, cry or seem inconsolable.
- Skin redness or rash from tapes/medication

Uncommon complications

- Awareness
- Damage to teeth, dental prosthetics, lip or tongue
- Damage to vocal cords or larynx
- Allergic reactions
- Injury to nerves or vulnerable pressure areas
- Pressure sores (especially if the surgery is long and involves cardiopulmonary bypass)

Extremely rare and serious complications

- Severe allergy (anaphylaxis) or shock
- Very high temperature (malignant hyperthermia)
- Aspiration resulting in pneumonia

Fasting guidelines

Our staff will instruct you on fasting. If breakfast is allowed, please serve only plain bread, Milo™ or milk. Water may be allowed afterwards. Your child must finish eating or drinking by the stipulated time.

During the relaxed anaesthetized state, food and fluid can flow back from the stomach into the mouth and then inhaled into the lungs (aspiration). This can be life threatening. Therefore **FASTING BEFORE ANAESTHESIA IS ESSENTIAL and universally practised.**

IF YOU DO NOT FOLLOW INSTRUCTIONS, THE PROCEDURE MAY BE POSTPONED OR CANCELLED IN YOUR CHILD'S BEST INTEREST.

In the event the timing of the procedure is delayed, your child may be fasted for longer than intended. Although we try to minimize such occurrences, we seek your understanding that it may not be possible to avoid such situations absolutely.

REGIONAL ANAESTHESIA (RA)

REGIONAL ANAESTHESIA involves injection of local anaesthetic drug around the nerves that carry pain sensation from the surgical site. This provides pain relief during surgery and afterwards. The exact place where the local anaesthetic drug is injected depends on the surgical site. Your child's anaesthetists will discuss with you which nerve block will work best for your child as well as potential risks associated with it. Depending on the age and medical condition, RA can be performed awake, or more commonly under GA or sedation in children.

Common types of regional anaesthesia include:

- A. **Peripheral block: e.g. Penile Nerve, Ilioinguinal Nerve, Brachial Plexus, Femoral Nerve**
- B. **Central block: e.g. Epidural, Caudal or Spinal Anaesthesia**

In epidural anaesthesia, a special needle guides the placement of a fine bore tubing (catheter) into a space near the spine between the backbones. Continuous pain relief can be achieved by administering local anaesthetic and painkillers via this catheter. This catheter may be left in place up to several days post-surgery. This allows for continued postoperative pain relief. Caudal anaesthesia is essentially epidural anaesthesia given at the bottom of your child's spine. It can be given as a single injection or repeated at the end of surgery. Alternatively a catheter may be left in place like in an epidural.

Are there any risks?

It may take several hours for the effects of regional anaesthesia to wear off. As the anaesthetized site is numb, extra care should be taken to avoid accidental injury. Where central blocks or ilioinguinal nerve blocks are used, your child should not ambulate until the numbness has subsided and strength regained in the legs. Rarely, the nerve blocks may fail or result in an incomplete patchy block.

Common side-effects (usually temporary) of central blocks

- Numbness or tingling sensation in lower limbs
- Weakness of muscle over numbed areas
- Shivering
- Itching
- Backache and bruising over injection site
- Inability to pass urine
- Dizziness, headache
- Drop in blood pressure (uncommon in younger children)

Serious but rare side effects

- Trauma to surrounding structures
- Nerve damage
- Blood clot (Haematoma)
- Seizures
- Breathing difficulties
- Infection, abscess formation
- Cardiac arrest

INVASIVE MONITORING

INVASIVE MONITORING may be required if your child is critically ill or undergoing major surgery.

Arterial line

Arterial line involves placement of a plastic catheter into an artery for accurate monitoring of your child's blood pressure. Blood can also be drawn from the line for tests if necessary. Complications may include injury to the vessel/ surrounding structures and blood clot.

Central venous line (CVL)

A large bore catheter is inserted through your child's neck, chest or groin into a large vein leading to the heart so that we can assess your child's blood volume and heart function better. The central venous line also allows for the administration of drugs and fluids as required. Complications may include inadvertent puncture of the artery or lung, blood clot formation or heart rhythm changes. Very rare complications include nerve injury, damage to the thoracic duct and migration of the catheter out of the vein. Very rarely, some of these complications may be fatal.

POST-OP SPECIAL CARE: INTENSIVE CARE (ICU), HIGH DEPENDENCY (High Dependency)

Post-operative intensive care may be required in cases where intensive monitoring, ventilatory support or cardiovascular support is needed.

High dependency monitoring is required for children who require closer monitoring/ care post surgery than that available in the general ward.

HIGH-RISK PATIENTS : THE CRITICALLY-ILL; EXTREMELY YOUNG BABIES

In a critically-ill child, the risk of peri-operative complications and death is vastly increased. The benefits of anaesthesia need to be weighed against the risks and this balance varies from patient to patient. Your anaesthetist will advise you on the appropriate peri-operative care for your child after discussion with you and the surgical team.

I fully understand the anaesthesia risks and options and agree to the anaesthesia plan as explained to me

by Dr _____ in _____ (language/dialect).

Parent / Legal Guardian

Date

Witness (Designation)