



## Frequently Asked Questions SPA Parental Resources

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### 1. Who will perform my child's anesthesia?

The anesthesia care team involves specially trained individuals to ensure the safety and comfort of your child. This team includes physician anesthesiologists, anesthesiology residents and fellows, certified registered nurse anesthetists (CRNA), and certified anesthesiologist assistants (CAA).

- **Physician anesthesiologists** are medical doctors who specialize in anesthesia care and pain management. Training to become an anesthesiologist involves completing four years of medical school training and four years of anesthesiology residency training. Some physician anesthesiologists pursue further training in the care of infants, children, and teenagers to become pediatric anesthesiologists.
- **Anesthesiology residents and fellows** are medical doctors who have graduated from medical school and are training to become anesthesiologists. A physician anesthesiologist will be present and supervise them during the care of your child.
- **Certified registered nurse anesthetists** are specially trained nurses who have completed nursing school and a master's degree or doctorate in anesthesia. They may or may not practice anesthesia without physician supervision, depending on specific state laws.
- **Certified anesthesiologist assistants** are highly trained individuals with a master's degree in anesthesia. They work under the supervision of an anesthesiologist when providing anesthesia to your child.

### 2. What are the different types of anesthesia?

Several different types of anesthesia are used to optimize surgical conditions and keep your child safe and comfortable during procedures and operations. The anesthesiologist will consult with you and the surgical team to determine the best anesthetic plan. Possible methods of anesthesia include:

- **General anesthesia** is a common form of anesthesia where the child is completely asleep. This allows the child to have a procedure or surgery without any pain, memory, or movement. This is accomplished by using an injection of medicine through an IV (intravenous catheter placed in a vein) or by breathing anesthesia gas through a mask or breathing tube.
- **Regional anesthesia** involves injecting medicine around nerves to numb a large area of the body. This type of anesthesia is used to keep your child comfortable during and after the surgery. Regional anesthesia is usually used in combination with general anesthesia to maximize child comfort and minimize anxiety during and after procedures.
- **Local anesthesia** involves injecting medicine to numb a small area of the body and is usually reserved for minor procedures. Your child will often be awake or receive minimal sedation with this type of anesthetic.
- **Monitored anesthesia care** involves giving different sedating and pain-relieving medications through an IV to relieve your child's anxiety and pain during minor procedures. Your child will

not be completely asleep with this type of anesthesia. This is often combined with local anesthesia to minimize pain and anxiety.

### 3. How is general anesthesia different from sedation?

Sedation involves giving medicines to make your child more relaxed. This will allow your child to tolerate the procedure, and he or she might not remember the procedure. If the procedure is painful, pain medicines can also be given. There are different levels of sedation-minimal, moderate, and deep, depending on your child's response to verbal commands, touch, and painful stimulus. A sedated child should be breathing on his or her own and should react to a painful stimulus. A child under general anesthesia will usually not respond to a painful stimulus and may need assistance from a breathing machine.

### 4. Is general anesthesia safe for my child?

Many children safely undergo general anesthesia for a wide range of surgeries and procedures. Your child will be continuously monitored throughout the anesthetic. In late 2016, the US Food and Drug Administration (FDA) issued a safety warning about the potential effects of anesthetics on the developing brain of children younger than 3 years of age. While there is some evidence that longer (> 3 hours) or repeated anesthetics could negatively affect behavior or learning, much more research is needed. A single, short exposure to general anesthesia appears to be safe. Please discuss the need and timing for the surgery and procedure with your surgeon or primary physician. Please refer to the website [www.smarttots.org](http://www.smarttots.org) for more information or contact the anesthesiology department at the facility where your child's surgery or procedure is scheduled.

Other potential risks and side effects from general anesthesia include:

- Dental injury – teeth that are already loose may get looser or fall off when we place a breathing tube or other devices in the mouth.
- Sore throat – If a breathing tube is inserted in the throat, your child may have a temporary sore throat after it is removed.
- Nausea or vomiting (see below)
- Emergence delirium – your child may wake up irritable after anesthesia. This is usually temporary, and the anesthesia team will help your child calm down.
- Serious allergic reactions are rare and occur approximately 1.5 times per 10,000 surgeries or procedures.

### 5. What can I expect for my child's anesthetic?

**Fasting Instructions:** To reduce the risk of aspiration (i.e., stomach contents entering the lungs) while under general anesthesia, your child will be asked to stop eating and drinking before the surgery or procedure. The following is a list of fasting recommendations from the American Society of Anesthesiologists. Some hospitals or facilities may modify their fasting guidelines based on their local practices:

2 hours: clear liquids (e.g., water, apple juice, Gatorade, Pedialyte)

4 hours: breastmilk

6 hours: non-clear liquids, non-human milk, formula, fluid thickeners, broth, Jell-O.

Light meal with no fat or protein (e.g., toast and clear liquids)

8 hours: full meal, solid food, fried foods, fatty foods or meat.

**Admission:** After checking in on the day of surgery, you and your child will be taken to a pre-operative room. First, a nurse will take your child's vital signs and ask some preliminary questions. You will then meet your child's anesthesiologist. S/he will gather more information from you, perform a physical exam, and then discuss the anesthetic options. Your anesthesiologist will provide further details and help clarify any questions you have regarding anesthesia. Occasionally, a "pre-medication" may be given to help relieve your child's anxiety. Depending on the hospital's policy and the anesthesiologist's discretion, a parent may or may not be allowed to accompany your child into the operating room or procedure area.

**Going Under General Anesthesia:** In general, there are two ways your child may be placed under general anesthesia. Your child can either breathe the anesthesia gases through a mask or may be given a relaxing medicine using an IV catheter to achieve unconsciousness. So, the IV catheter may be placed while your child is fully awake or after your child is under general anesthesia. There are certain indications to place the IV catheter while your child is fully awake and if that's the case, your anesthesia care provider will discuss it with you. Some anesthesia providers might use distraction techniques, such as tablets, smartphones, and virtual reality goggles to distract your child during IV placement or going under general anesthesia. If your child has specific needs, please feel free to communicate them with the anesthesia team in advance, so they can accommodate your requests.

**Monitoring While Under Anesthesia:** Your child will be kept asleep or unconscious by breathing the anesthesia gas through a mask or breathing tube. Anesthesia can also be maintained by medicines infusing through an IV. During the procedure, an anesthesiologist or anesthesia provider will continuously monitor your child's vital signs, including their heart rate and rhythm, oxygen levels, and blood pressure. When the surgery or procedure is over, the anesthesia gas or IV medicine is turned off, and your child will be woken up and taken to the recovery room.

**Recovery:** In the recovery room, your child will be observed closely by a nurse until s/he awakens. At that time, you will be brought back to the recovery room to be with their child. It can take about 45 minutes to an hour for your child to recover from general anesthesia. Recovery may take longer, depending on the type of surgery or medications administered during or after the procedure. In general, once your child is awake, able to eat or drink, pain is controlled, and vital signs are normal, s/he will be released to the hospital room or go home as planned. In some circumstances, your child may need to be monitored in the hospital overnight to recover fully from the anesthesia or procedure. Your surgeon and anesthesiologist will help make that decision based on what is safest for your child.

## 6. How can I prepare my child for anesthesia?

- Arrive early for the appointment.
- Follow the fasting recommendations.
- Choose loose-fitting clothing.
- Remove any metal from your child (earrings, necklaces, watch, hair-ties, piercings, etc.)
- Feel free to bring a favorite blanket or stuffed animal if the hospital permits it.
- Bring a list of your child's medications, allergies, and health problems.
- If your child is on any medications, please check with the hospital if you should give it on the day of the surgery or procedure.
- If your child uses a CPAP machine (a mask while sleeping to help breathe better), please consider bringing it with you.

- If your child is sick and develops a fever, cough, runny nose, wheezing etc., please call the hospital before showing up for the surgery or procedure.

## **7. What information about my child is important for the anesthesia team?**

The physician anesthesiologist or a member of your child's anesthesia team will review your child's medical history and ask you several questions. Important information to share with the physician anesthesiologist or anesthesia team includes:

- Breathing problems, such as asthma, wheezing, croup, snoring, etc.
- Heart problems, such as holes between heart chambers, heart murmurs, irregular heartbeats, etc.
- Recent illness, such as colds, runny nose, cough, fever, ear infections, etc.
- Other medical problems that required a doctor visit or hospital stay.
- Problems as a newborn, such as premature birth, birth defects, prolonged stay in the neonatal intensive care unit, prolonged need for oxygen, etc.
- Exposure to smokers at home.
- List of medications, including inhalers, over the counter and herbal medicines.
- Allergies, including allergies to drugs, foods, latex (rubber), etc.
- Previous surgeries or procedures that needed anesthesia.
- Problems with anesthesia, such as breathing problems, delayed waking up, nausea/vomiting, etc.
- Family history of problems with anesthesia.
- Family history of bleeding problems
- Presence of loose teeth.
- Planned blood tests or other studies while your child is under anesthesia.
- Last time your child had something to eat or drink.

## **8. How should I talk to my child about anesthesia?**

Medical experiences can be challenging for children of all ages. Your child may feel curious, interested, anxious, and even excited about going to the doctor's office and hospital. Young children and even teenagers have incredible imaginations and, sometimes, these imaginations can cause concern, fear, or worry about medical care. It is completely normal for a child of any age to be nervous about their procedure.

It is okay to tell your child the truth. Even children as young as 2 or 3 can understand simple phrases such as "helping your ears feel better," as it relates to having surgery for a condition such as on-going ear infections. It is not always easy to talk to your child about surgery and anesthesia without feeling like you are going to overwhelm or scare them. Try to talk to them with clear and concise information that describes the part of the body the medical team will be treating and why they are having that procedure or surgery. Describe the surgery and anesthesia in a way that makes them understand that specially trained people (doctors and nurses) are going to keep them safe and perform the surgery.

Do not be afraid to educate yourself about the surgery and anesthesia. There are people in medicine to help answer your questions and educate you and your child. Be careful about using other Internet sites. Information online can sometimes be misleading and incorrect. Education will help you understand and help you not be afraid. Let your child ask questions and help them understand by being realistic. Assure your child that there is a timeline for what is going to happen and that, in the end, you will be there for them.

## 9. Where can we learn more about anesthesia?

Undergoing surgery or a procedure under anesthesia can cause anxiety for both you and your child. This need not be the case. The main way to reduce anxiety is for you and your child to understand the reason and process for anesthesia, and the surgery or procedure. This information can be given to the child by you or by specially trained people who can talk to your child at his/her maturity level. You can find information regarding the type and process of anesthesia in many ways:

- The public website of the hospital or facility that your child is scheduled for surgery or procedure. Search for “preparing for surgery/anesthesia.”
- Call the hospital or facility and talk to the Anesthesiology Preoperative Clinic or Anesthesiology Department.
- Call the hospital or facility and ask to talk to a specialist from the Child Life Department. They may also be able to direct you and your child to a video or a hospital tour.
- Read books to your child that talk about preparing for anesthesia. These books can be bought or found in public libraries or family libraries within the hospital facility (Each facility may have slightly different processes for anesthesia). Some examples include:
  - Usborne First Experiences “Going to the Hospital.”
  - “Getting Your Child Ready for Outpatient Surgery” by Jerry C. Vaughan.
  - “Franklin Goes to the Hospital” by Paulette Bourgeois.
- A specific plan can be made to suit your child, which may include distraction techniques and medications before entering the surgical/procedural rooms.

## 10. Will my child be in pain after surgery?

Some pain after surgery is expected, although that does not make it any easier to watch your child feel uncomfortable. As the Anesthesiology team, we do not like to see your child in pain either, and we will do everything we can to make sure they get appropriate pain management that is safe. Some children can verbalize where they have pain and how much it hurts. With other children, we have to look at nonverbal signs of discomfort such as grimacing, crying, restlessness, and breath-holding. There are several options for pain control, and whenever possible, we try to use more than one option.

**Pain Medications:** These are medications that we can give in an IV or by mouth if able. These include opioids (fentanyl, morphine, hydromorphone or oxycodone), acetaminophen (Tylenol) or non-steroidal anti-inflammatory medications (ibuprofen or naproxen).

**Regional Anesthesia:** If possible, your anesthesia team may choose to inject local anesthetic or numbing medicine around the surgical site or a nerve that provides sensation to the incision. All these options will be discussed with you before the surgery or procedure.

## 11. Will my child feel sick (nauseous) or vomit after anesthesia?

Nausea and vomiting are risks after exposure to certain surgeries and common anesthetic medications. There are certain patient, surgery, and anesthesia-related risk factors.

Patient-related risk factors include:

- Previous history of nausea and vomiting after anesthesia or motion sickness
- Family history of nausea and vomiting after anesthesia
- Age (greater than 3 years of age)

Surgical procedures associated with an increased risk of nausea and vomiting include:

- Strabismus (eye) surgery
- Ear, nose, and throat procedures such as tonsillectomy
- Orchiopexy (surgery on the testicles)
- Penis surgeries.

Anesthesia providers commonly give medicines through an IV to prevent nausea and vomiting. If, despite these preventative measures, your child is still suffering from nausea and/or vomiting after surgery, your anesthesiologist will assess your child and come up with a plan. The feeling of needing to vomit while uncomfortable, usually resolves on its own over a few hours. Following discharge, if your child is unable to keep any food or water down, you should call the hospital.

## **12. What if I have additional questions?**

If you should have any additional questions regarding your child's anesthesia or the perioperative experience, there are a few things that you can do.

- Contact the hospital or facility where your child is having surgery. They should be able to provide you with a contact name and phone number for the Anesthesia team. They might direct you to their website for more information.
- You can also ask your surgeon or their office for whom to contact for more information about your child's anesthetic. They can help you get in touch with the right people to answer any questions or concerns you have.