



General Anesthesia and Your Child

Michael Rothschild, MD
Clinical Professor
Director, Pediatric ENT, Mt. Sinai Medical Center

1175 Park Avenue, 1A, NY, NY 10128
(212) 996-2995
www.KidsENT.com

For most parents, the thought of their child undergoing general anesthesia is the most frightening part of any surgery. This is understandable, since anesthesia is unfamiliar to most families. Furthermore, the media occasionally reports a terrifying story of a life threatening problem with an anesthetic. In reality, though, modern anesthesia is extremely safe. It is only because it is so safe - with millions of uncomplicated anesthetics administered every year - that such events are considered news at all. Here are answers to some commonly asked questions.

Why can't you do the procedure under local anesthesia?

For young children, it is rarely possible to safely perform a surgical procedure without complete (general) anesthesia. Although local anesthesia may be used for dental procedures in older patients, it would be far from appropriate for the common operations in my practice.

The administration of local anesthesia itself is often painful and terrifying to a child, as would be the need for restraint, and it would not be possible to hold even a small child completely still. During the placement of ear tubes, for example, the slightest degree of motion could result in permanent ear injury. It simply isn't worth the risk.

Can you just use the smallest amount of anesthesia possible, or just some sedation?

This can actually be more dangerous than standard anesthesia. For some situations (such as painless but frightening procedures like a CT scan), it can be useful. But in a child with a small airway, the chance of breathing problems is greater if the airway isn't under the anesthesiologist's continual control.

In fact, the period requiring the greatest amount of attention is when the patient is "light", or only slightly anesthetized, during the start or finish of the procedure.

The best analogy is that of flying in an airplane. Most accidents occur during takeoff and landing, when the plane is close to the ground. Similarly, the start and end of anesthesia (induction and emergence) are the most difficult parts of the anesthetic, when the level of anesthesia is lightest. Asking an anesthesiologist to use a small amount of anesthesia (a very common request) would be like asking a pilot to keep the altitude to a minimum by flying just above the treetops!

Who will give my child anesthesia? Can I meet that doctor ahead of time?

Your child's anesthetic will be given by a fully trained and experienced attending anesthesiologist, who may have an assistant. In almost every case, this doctor will be a specialist in pediatric anesthesiology. In rare situations for older children, a general anesthesiologist will be working with me, but in no case will this change the safety of the anesthetic. I would never work with anyone that I did not trust completely.

You will meet this doctor in the hospital just before the surgery, but if you would like to speak to one of the pediatric anesthesiologists ahead of time, you can call (212) 241-7475 for patients having surgery at Mt. Sinai, or (212) 231-7778 for the surgery center on 54th street.

I heard about a case where someone died under anesthesia. Is that possible?

While this is possible, and has happened, it is extremely rare, especially for healthy children. The overwhelming majority of deaths during surgery involve elderly and/or extremely sick patients undergoing major operations. Millions of people have general anesthesia every year without any difficulty. The actual risk of a fatal event under anesthesia (for an otherwise healthy child) is about 1 in 300,000. To put that number into perspective, the risk of death from an unexpected reaction to penicillin is about 1 in 80,000. The risk of a fatal automobile accident while riding in a car (in

the United States, over a one year period) is about 1 in 6500! Remember, these are extremely rare events, so that when something like that does happen, it makes the news.

What if my child is allergic to anesthesia? Can you test for that?

True allergic reactions to anesthetic drugs are very uncommon - I have never seen or heard of one in my own practice. However, there is a rare condition in which people have a bad reaction to certain medications used in anesthesia. This is a congenital muscle disease known as malignant hyperthermia, and every anesthesiologist knows about this and how to treat it. Testing for it actually involves a small operation (a muscle biopsy). But there is no reason to test for this in the absence of anything else that might suggest the disease.

Can I be there when my child goes to sleep?

My main concern is, of course, the safety of your child. However, I also understand that the stress of surgery (both on the patient and the parent) can be reduced by your presence. In general, one parent is allowed into the operating room while the child goes to sleep.

There are some limitations to this. Hospital policy does not allow mothers who are pregnant into the operating room, or parents of patients who are under 8 months of age. Also, there are rare medical scenarios where parents are not allowed. The anesthesiologist is the one who makes the final decision about who is allowed in the operating room.

Finally, if you feel unsure about how you will react, it may be better if you are not there. Seeing a parent having a strong emotional reaction is not reassuring to a child, and may actually be worse than having to go through the administration of anesthesia alone. And it goes without saying that if a parent were to faint, it would not only be terrifying for them, but also would result in the need to direct medical attention away from your child!

Can I stay during the procedure?

The reason for a parent to be in the OR is to help their child feel better as they go off to sleep; it is not for the parent's benefit. Parents are not allowed to stay during the surgery itself, even if they are physicians. This is potentially disruptive. Once again, your child's safety is my primary concern.

Can I be there when my child wakes up?

This is another common request. While I do all that I can to make sure that you are separated from your child for the shortest possible amount of time, there are safety considerations. Emergence from anesthesia requires a lot of work by the anesthesiologist, and your child needs to regain a certain level of consciousness before it is safe to leave the monitors and equipment in the OR.

While most children are to some degree awake by the time you are reunited with them, they are slowly emerging from a very deep sleep, and usually don't remember much until later in the recovery period. I know that it is hard to be separated from them when they are going through a stressful experience. I always do my best to keep that time as short as possible.

Why is my child crying in the recovery room?

Unlike adults, most children do cry in the recovery room, especially if they are young. This is not because children feel more pain than adults, or get less pain medication. It is because there are many things in this situation that cause stress, and children tend to cry in stressful situations. Furthermore, "emergence delirium" is much more common in pediatric patients - this is disorientation and agitation that can be seen as the anesthesia wears off.

In addition to surgical pain (which will be treated with medication), children are often confused, frightened, cold, nauseated, and hungry after surgery. All of these add to stress. However, they usually feel better in a short time, once they have woken up more fully and have had something to eat or drink.

Does anesthesia have any long term risks?

Over the past few decades, researchers in anesthesiology and the FDA have been investigating the possible impact of anesthesia drugs given in early childhood on neurological development. While there was more concern before much research was done, the most recent data is very reassuring. Several large studies in the past few years have shown no significant risk for procedures less than three hours in duration (like most of my surgery), even in very young children. While this is a complex topic and the subject of ongoing investigation, the consensus seems to be that there is no reason to delay otherwise indicated operations on this basis.