

Anesthesia and Your Child



Any time a child requires a hospital visit, it can cause anxiety—for both parent and child. This especially may be the case when the visit involves any type of procedure that might require anesthesia. Examples of such procedures are surgery, some types of x-rays, and certain tests to examine the stomach or intestines.

The purpose of anesthesia is to enable your child's surgery, medical test, or treatment to occur without pain, memory, or movement.

Your child's comfort and safety are very important. The person(s) providing your child's anesthesia will monitor heart rate, blood pressure, breathing, temperature, and the oxygen level in the blood before, during, and after anesthesia. Your child's unique needs, the procedure involved, and your child's health will help determine the type of anesthesia.

Most anesthesia providers work as a team. Anesthesiologists (doctors), residents (doctors-in-training), certified registered nurse anesthetists (CRNAs), physician's assistants, and nurses may all be part of this team.

Preparing for anesthesia

Before having anesthesia, your child will need a physical examination. At this time, either your pediatrician or a member of the anesthesia care team will review your child's current health and medical history. You will answer questions about your child's health. This may take place on the day of the surgery, test, or treatment, or in the days just before it occurs.

It is important to tell the doctor about any of the following that apply to your child:

- Allergies, including allergies to food, drugs, or latex (rubber).
- All medications that your child is taking, including herbal or natural types and inhaled (breathed in) medications.
- Breathing problems, including asthma, croup or wheezing, snoring, and apnea (periods when breath is held during sleep).
- Any recent illnesses, especially bad colds.
- Any problems that your child had as a newborn, such as premature birth, breathing problems such as croup or asthma, or birth defects.
- Heart problems, including holes between the heart chambers, valve problems, heart murmurs, or irregular heartbeats.
- Any other medical problems that your child has or has had, especially if they required visits to a doctor or a stay in the hospital.
- Any previous surgery or procedure using anesthesia.
- Previous problems with anesthesia or surgery, such as airway problems, problems going to sleep or waking up from anesthesia, or problems with nausea and vomiting after surgery.
- Any family history (both sides of the family) of problems with anesthesia.
- Family history of bleeding problems.
- Whether your child or anyone in the household smokes.
- If your child has any loose teeth. (Sometimes loose teeth must be removed for your child's safety.)
- Whether your child may be pregnant.

Your child may need blood tests prior to anesthesia. Other tests, such as x-rays, are needed sometimes. Most of the time few, if any, tests are required.

What is a pediatric anesthesiologist?

A *Pediatric Anesthesiologist* has the experience and training to help ensure a successful surgery, test, or treatment for your child.

A pediatric anesthesiologist is a fully trained anesthesiologist who has completed at least 1 year of specialized training in anesthesia care of infants and children. Most pediatric surgeons deliver care to children in the operating room along with a pediatric anesthesiologist. Many children who need surgery have complex medical problems that affect many parts of the body. The pediatric anesthesiologist has special training and experience to evaluate these complex problems and to plan a safe anesthetic for each child.

What are the risks of anesthesia for my child?

Minor side effects of anesthesia, such as a sore throat, nausea, and vomiting, are common. Major problems are rare. Ask the anesthesiologist to explain the specific risks for your child.

What do I tell my child about anesthesia?

Begin talking about the hospital visit 5 to 6 days in advance for older children, and 2 or 3 days ahead for toddlers. Be honest with your child. Depending on your child's age, use familiar words such as "sore" for pain or "taking a nap" for being put under anesthesia.

Explain that the sleep from anesthesia is different from sleep at home. During anesthesia a person does not feel pain. Your child will not wake up in the middle of the procedure. At the end of the surgery, test, or treatment, the anesthesiologist will take away the medicine that provides this type of "sleep" and your child will awaken and return to his family.

Children between the ages of 3 and 12 may not be ready to hear about the risks of surgery or anesthesia. Often, they understand enough to be scared, but not enough to be reassured. Your anesthesiologist may want to tell you about the risks when your child is not present.

If your child becomes worried when you talk about what anesthesia will be like, explain that it is OK to be scared. Point out that the anesthesia care team will work hard to make your child feel safe and comfortable. You can help keep your child's fears to a minimum by being calm and reassuring.

Some hospitals offer special programs that explain the anesthesia and surgery process to children and families. Ask for books and videotapes that can help you prepare your child and yourself.

What if my child gets sick just before the scheduled time?

Call your anesthesia care team and your doctor if your child becomes ill near the time scheduled for the procedure. If your child develops a cold or other illness, the surgery, test, or treatment may have to be rescheduled because the risk of added problems may increase. If your child is exposed to chickenpox within 3 weeks of the procedure, it may be rescheduled because of the risk to other patients. Your child may be able to spread chickenpox before skin spots develop.

The day of the procedure

Can my child eat, drink, or take medicine on the day of anesthesia?

Except for emergencies, your child's stomach should be empty when anesthesia is started. This helps to prevent vomiting, which may cause food or stomach acid to get into the lungs. It is important to check with your surgeon or anesthesiologist prior to your child's anesthesia for specific guidelines for your child. The following are general recommendations:

Infants younger than 1 year of age may have

- Solid food until 8 hours before anesthesia (NOTE: baby food and cereal are solid foods)
- Infant formula until 6 hours before anesthesia
- Breast milk until 4 hours before anesthesia
- Clear liquids until 2 to 4 hours before anesthesia

Children of all ages may have

- Solid food until 8 hours before anesthesia (NOTE: baby food and cereal are solid foods). In general, no solid foods are allowed after a certain time the evening before anesthesia.
- Clear liquids (eg, apple juice, clear soda, Popsicles, or a prepared electrolyte solution) until 2 hours before anesthesia (NOTE: orange juice with pulp, milk, and baby formula are not clear liquids).

Remember, each health care facility has its own guidelines for eating and drinking prior to anesthesia. Check with your anesthesia care team to learn the instructions for your child. Failing to follow your health care facility's guidelines may result in the delay of your child's procedure.

In addition, ask your anesthesiologist which, if any, of your child's routine medications may be taken on the day of anesthesia. Some medications may be given on the morning of anesthesia with small sips of water, but not mixed with solids such as applesauce. However, other medications, including herbal and natural types, may interact with drugs used for anesthesia and must be stopped prior to anesthesia.

On the morning that your child is to receive anesthesia

- Be sure to follow the fasting (not eating) instructions.
- Dress your child in loose-fitting, comfortable clothes.
- Give any medications (that your anesthesiologist has approved) with a sip of water.
- Bring a favorite comfort object such as a blanket, stuffed animal, or toy.
- Be a calm and reassuring parent for your child.

What will my child do while waiting for anesthesia?

Most large hospitals have a special waiting area with space and toys for play. If you have not done so already, you will meet the anesthesia care team at this time. They will review your child's records, briefly examine your child, tell you how they will keep your child safe, discuss the risks, and answer any remaining questions or concerns.

Will my child be worried?

A calm and supportive family can provide the most help in ensuring that your child will not be overly worried or upset. As mentioned, a special blanket, stuffed animal, or toy also may provide comfort.

Often, sedatives (medications to help your child relax) are given before the start of anesthesia to help reduce fear and worry. The choice of whether to provide a sedative will depend on your child's age, level of anxiety, medical condition, and your hospital's practices. Sedatives may be given through the mouth, nose, or rectum (the anal opening), or as an injection.

How will anesthesia be given to my child?

Most children get to choose one of the following ways for anesthesia to be started:

- By breathing anesthetic gases through a mask
- Through a needle that is put into a vein (IV)
- Through a needle that is put into a muscle (an injection)

When a mask is used, there is no need for shots and no pain is involved.

However, some children do not like having masks placed on their faces. An injection can be briefly painful and frightening to a child. However, it is quick and does not require your child to remain still. If an IV is used, the use of local anesthetic (numbing medicine) at the IV site will make this less painful.

If a mask will be used to start anesthesia, talk to your child about this before the day of the surgery, test, or treatment. Explain that the mask contains special air that helps children feel sleepy. The mask may be treated with a special smell to make the process more comfortable. This method may not be used in certain cases, such as for some emergencies, in the case of stomach or bowel problems, or if your child has eaten recently.

Once a child reaches about 10 years of age, anesthesia usually is started by IV. No matter how anesthesia is started, your child will be kept comfortable and asleep with a combination of gas and IV anesthetics. Your child will not awaken during the surgery, test, or treatment. She will awaken once the procedure is completed, unless there is a need for intensive care at that time. If your child needs this type of care, your anesthesiologist will explain this to you.

Can I be with my child when anesthesia is started?

Some hospitals allow 1 support person (usually a parent) to go with the child into the operating room or other area where your child is to receive anesthesia. Check on the policy at your hospital ahead of time. Your child's anesthesiologist will make the final decision.

Many anesthesiologists feel that giving children sedatives makes separation much easier and that parents do not need to be present. Whatever the decision, remember that the anesthesia care team has a lot of experience with helping children stay calm during these moments.

If you are able to be present for the start of anesthesia, ask the anesthesiologist beforehand what you should expect to see and how your child might react. Understanding what is to happen will make you feel more comfortable.

It is important to realize that even if you are allowed to be with your child for the start of anesthesia, it is no guarantee that your child will not get upset before going to sleep. This depends on your child's age, temperament, and past experiences.

After the procedure

Where will my child go after the procedure?

Your child will go to a recovery room or an intensive care unit, depending on the type of surgery, test, or treatment, and your child's medical condition. Usually, parents are allowed to be present once their child is admitted to these areas and the child's condition is stable. After a routine procedure, the recovery stay is usually 30 minutes to 2 hours. Then your child may go to a regular hospital bed or a short-stay unit, or be discharged and able to go home.

How will my child behave after the procedure?

Children come out of anesthesia in different ways. Some are alert and calm right away. Others may remain groggy for a longer period of time. Infants and toddlers may be irritable until the effects of the anesthesia have worn off. If this is the case, your child may need more sedative medication while "sleeping off" the remaining effects of anesthesia.

Will my child feel pain?

One of the main goals of anesthesia is to prevent pain during and after the procedure. If your child is in pain in the recovery room, he may get more pain medicine. Pain medication comes in many different forms and can be given in many different ways. Your child's doctors will discuss the options with you and your child ahead of time.

Will nausea and vomiting be a problem?

Nausea and vomiting are very common after anesthesia and may be due to your child's condition, the procedure, or the side effects of anesthesia. If your child is vomiting a lot, she may need to stay in the hospital longer. Sometimes an unplanned overnight stay in the hospital is needed. There are medications that can be given to your child during or after anesthesia to reduce the chance that this will be a problem.

Discuss your questions or concerns with your anesthesia care team and your pediatrician or other doctor(s) who are involved. These health care professionals are trained to ensure your child's comfort and safety throughout the process.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

From your doctor

You can reach someone from your anesthesia care team at

Be sure to keep your anesthesia care team informed about your child's health just before the procedure. Call this number and/or the doctor who is performing the procedure if your child develops a cold or other illness or has been exposed to chickenpox within 3 weeks of the procedure.

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of Pediatrics**



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