Pediatric Surgery
at Elliot Hospital

Elliot Health System

elliothospital.org | 603.663.8393
Children of all ages have questions and fears when they come to the hospital, especially before surgery. They may feel confused, overwhelmed, and frightened. These fears are often more frightening than what will really happen.

Parents and caregivers often don’t know how to prepare their children for surgery, because they may not know what to expect. Sometimes, they feel it is best not to tell their child too much about surgery. However, usually the more both you and your child learn about the surgery and what to expect, the easier it will be to cope.

Common fears and worries:

“**What if I wake up in the middle of the operation?**” The doctor knows just the right amount of sleeping medicine to keep your child asleep so he/she will not wake up or feel the operation. The doctor stops giving the sleeping medicine at the end of the operation so your child will wake up. It is helpful to tell your child that you will be with them very soon after they wake up.

“**What if the doctors make a mistake or do the wrong operation?**” Your child may worry the doctor will make a mistake that will leave their body altered forever. To reduce these fears, tell your child the hospital staff will put a “bracelet” on their wrist so everyone knows their name. They also carefully follow a special procedure to mark the correct place for surgery on your child’s body. This makes it easy for the doctors and nurses to give the right medicine and do the right tests and operations. Making a simple statement to your child such as “The doctors make only the smallest opening necessary to take out your appendix” can also be helpful.

“**What if I get sick prior to my scheduled surgery?**” If you develop a cold, cough, fever or flu, please notify your surgeon immediately.

Other common worries are:

- Being away from school and friends
- Having a body part destroyed or disfigured
- Needles
- Dying after surgery
- Going to the hospital is punishment for being bad

Some special worries for teens:

- Any change that might affect his/her appearance
- Being different from his/her friends
- Caregivers of the opposite gender
- Being physically exposed

Even if your child’s worries seem silly, try to be sensitive and allow your child to discuss them with you if he/she chooses.
What can you do?

1. Learn about your child’s surgery
Your child can tell if you are upset or anxious about their surgery. Learn as much as you can so you are ready to answer their questions simply and honestly.

Studies have shown that patients who are well prepared and know what to expect are:
- Able to cope more effectively and express less distress
- Have less nausea and vomiting
- Are able to walk and eat sooner, and are often able to go home sooner
- Are calmer, have less pain, and need less pain medication
- Have fewer behavior disturbances following surgery

Parents who are well prepared are also able to cope more effectively and are better able to support their child.

2. Preparing your child for surgery
Parents often wonder how far in advance to prepare their child for surgery. This depends not only on your child’s age, but when they start asking questions.

Infants 10 months or younger: begin preparing them at any time. Play peek-a-boo with surgery masks or let them wear surgery hats. Let them see and play with other appropriate medical items, such as pretend stethoscopes and blood-pressure cuffs.

Young children 10 months to three years: begin preparing them two to three days ahead of time. You may need to review the same information with them over and over again. Children of this age can play with pretend doctor kits and real medical supplies such as surgical masks, tape and medicine cups. This allows you to correct any misconceptions your child may have and gives them a way to play out their fears.

Children four years and older: begin preparing them four to seven days before going to the hospital. This will give your child enough time to think about his/her surgery and ask questions.

Children older than seven: an open discussion about the hospital should begin a few weeks ahead of time. You should actively involve children of this age when planning their surgery.
# Let’s Talk About... Surgery at Elliot Hospital

## 3. Talk with your child

One of the best ways to prepare your child for surgery is to talk about it. Begin by asking your child what they know and understand about the hospital or surgery. Children and teens may ask the same questions again and again. This means they are working hard to make sense of their surgery. It is helpful if you respond each time with simple and honest answers.

<table>
<thead>
<tr>
<th>Tips to help you talk with your child:</th>
<th>Special tips for teens:</th>
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<tbody>
<tr>
<td>• Use simple, understandable language.</td>
<td>• Help your teen feel more grown up. Even though you need time together, teens also need time alone. Let your child know when you can be at the hospital. If you can’t return when they expect you, call and tell them why.</td>
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<tr>
<td>• Help your child understand the reason for the hospitalization or surgery.</td>
<td>• Support your teen in deciding about the surgery. For example, ask your teen who should know about the surgery.</td>
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<td>• Help your child understand that tests and surgery are part of getting better.</td>
<td>• Be honest with your teen about what will happen at the hospital. You want your child to trust you. Remember to keep it simple and talk about what your teen wants to discuss.</td>
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<td>• Reassure your child that going to the hospital is not a punishment for being bad; they only go to the hospital to heal or get better.</td>
<td>• Give your teenager time alone to talk to doctors before the surgery and at the hospital.</td>
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<td>• Tell your child that they will not be alone. You or a staff member will always be close to keep him/her safe. You can be with them while waiting for surgery and when they wake up after the surgery.</td>
<td>• Try not to talk to others about your teen’s illness without including them. Teenagers may become angry if they think there are secrets about them. They need to know what is happening with their bodies to feel in control.</td>
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<td>• Explain what happens on the day of surgery. Give your child sensory information; what they will see, hear, smell, taste and feel before and after surgery.</td>
<td>• Let your teenager know that it is okay to be afraid and to cry.</td>
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<td>• You don’t need to tell them about details that they will not directly experience when they are asleep in the operating room. If your child does ask, provide them with honest, simple answers.</td>
<td>• Learn as much as you can about your child’s surgery. When you are worried, your teenager can tell. The more you know, the better you and your teen will feel.</td>
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<td>• Read children’s books about operations and hospitals. Age appropriate books may be available upon request at Elliot Child Life Services.</td>
<td>• Encourage friends to send cards or call. Let your child decide who they want to have visit and when.</td>
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What can you do? (continued)

4. Come prepared the day of surgery
If you have other children in your family, find someone to care for them on surgery day.

Be very careful to have your child follow the instructions about not eating or drinking before surgery. If your child eats or drinks too close to their surgery time, the surgery may have to be canceled.

- √ The night before surgery, after midnight, don’t let your child eat any solid foods. Your child may have clear liquids up until four hours before their scheduled surgery. Clear liquids include water, pedialyte, cranberry juice, apple juice or Gatorade.

- √ Four hours before your child’s scheduled surgery don’t let your child eat or drink anything.

You should eat before coming to the hospital. Eating before arriving at the hospital helps keep up your energy level and lowers your stress. If possible, try not to eat or drink in front of your child since this can be frustrating for children who can’t eat or drink before surgery.

Bring one of your child’s favorite toys or other familiar items with you. This will give your child a sense of security.

For safety, your child must wear hospital pajamas to surgery and during the recovery period in the hospital. However, bring some comfortable, favorite clothes for your child to wear home. Also, be sure to label everything and leave all valuables, such as jewelry, at home.

5. Children’s behavior
It is common for children’s behavior to change before, during and after surgery. This is true even if the child spends only one day in the hospital. Some children or teens may seem angry with parents and hospital staff. They may refuse to talk or play with you or the staff. This is normal behavior. Please understand that our staff is used to working with children and teenagers who are fearful and nervous.

One common behavior change is for children or teens to act younger than their age. For example, children who have recently been toilet trained may wet the bed for a few days or weeks after surgery. Some may start sucking their thumb or having temper tantrums, even if it has been some time since you have seen them do this. Older children and teenagers may be much more quiet and shy in the hospital and their attention spans may be short.

Remember that these are all healthy, normal responses to being in the hospital. Although it may require a lot of patience, it is important to support your child as much as possible.

Most behavior changes disappear within two to four weeks after coming home.

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Let’s Talk About...
Surgery at Elliot Hospital

What happens during the procedure?

Will I see the doctors before surgery?
You will speak with your surgeon and the anesthesiologist before your child is taken to surgery. Your surgeon will review any changes to your child’s medical history, answer any questions you have, and ask you to sign consent. The anesthesiologist and nurse anesthetist will talk to you about the safest anesthetic for your child. Sometimes, your child may be given a sedative in the preoperative area to help them feel sleepy or relaxed before bringing them to the operative room (OR).

How long will we wait before surgery?
Your child will be scheduled for an estimated surgery time, but you may need to wait longer. You will be able to stay with your child up until the time that everyone is ready to bring him or her into the operating room.

Why shouldn’t my child eat or drink?
To keep your child safe, he/she must not eat or drink for several hours before surgery. Anesthetic medicine that helps your child sleep during surgery also causes the stomach to relax. When the stomach is relaxed, the contents can come up and cause your child to choke or go into their lungs. To keep your child as safe as possible, follow the instructions on when to stop feeding your child before their surgery. If your child eats or drinks before surgery, the surgery will have to be delayed or canceled.

What happens to my child in surgery?
When your child is brought to the OR, the anesthesiologist and nurse anesthetist will start transitioning your child from the normal awake state to the deep sleep of anesthesia. This is referred to as induction, which is usually done by either injecting medication through an IV (needle) or by inhaling anesthetic gases through a mask.

If, like many kids, your child is afraid of needles, he or she may not have to get an IV while awake. The anesthesiologist will often begin the induction process on children using a mask. That way, they won’t be awake when the IV is inserted.

To help your child breathe and to deliver general anesthesia during the operation, the anesthesia team may use an endotracheal tube (a breathing tube placed through the mouth) or laryngeal mask airway (a mask with a tube that fits into the back of the mouth).

During the operation, the anesthesia team will monitor your child’s vital signs and continue to deliver anesthesia. Once the operation or procedure is over, the anesthesia team will reverse the anesthesia process and help your child “wake up”.

Where do I wait during the operation?
During your child’s surgery, you can wait in the surgery waiting room. While your child is in surgery, please keep your cell phone available if you want to leave the waiting room for any reason. This will help the staff update you if necessary. Please do not leave the hospital while your child is in surgery. The surgeon will talk to you in the waiting room after your child’s surgery. We will reunite you with your child in the recovery room as soon as possible.
What will my child feel?
Your child will be taken to the recovery room or PACU (post-anesthesia care unit). In the PACU, nurses and the anesthesiologist will monitor your child’s condition very closely for an hour or so to make sure he or she is safe and comfortable. When your child is beginning to wake up, you’ll be brought to the PACU to be with him or her during the recovery period. Don’t expect him or her to be fully awake right away — it may take a while and he or she may doze off for a bit. It usually takes about 45 minutes to an hour for kids to recover completely from general anesthesia. In some cases, this period may be a bit longer depending on the child and the medications given during or after surgery.

As your child wakes up, he or she may be confused, pale, restless, unsteady, irritable, and fussy or even agitated. They may not respond to the usual comfort measures. These are all normal reactions to anesthesia. Other common reactions are nausea and vomiting, hoarse voice, sore throat, or coughing. These are temporary and should go away a short time after surgery.

When can I take my child home?
You can take your child home when they are fully awake and breathing normally. They should be drinking clear liquids without vomiting. We want them to be as comfortable as possible. Most importantly, we want you to feel comfortable taking them home. After some types of surgery, hospitalization is required and parents are permitted (and encouraged!) to stay with their child day and night.

What are the risks of anesthesia?
As you prepare for your child’s surgery, it may be helpful to remember that anesthesia is very safe. In today’s hospitals and surgery centers, highly trained professionals use a wide variety of modern medications and extremely capable monitoring technology to ensure that kids are stable and as comfortable as possible before, during and after their procedure.

Many side effects of anesthesia drugs can be anticipated and are easily treated. More serious adverse effects may include dental trauma, allergic reactions, wheezing, vocal cord spasm, regurgitation of stomach contents with subsequent aspiration pneumonia, alterations in blood pressure, or irregular heart rhythms. Fortunately these complications are extremely rare. In the United States, the chance of a healthy child dying or sustaining a severe injury as a result of anesthesia is less than the risk of traveling in a car — which means you and your child may be at more risk getting to the hospital, than having an anesthetic for surgery.

The more informed, calm, and reassuring you are about the surgery and the safety of anesthesia, the easier the experience will probably be for both you and your child.

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Surgery: After Care

Nausea and vomiting
Common reasons why a child may feel sick to their stomach (nausea):

• Anesthesia, the medicine that is given to help a child sleep during surgery.
• The movement of the stretcher.
• Surgeries that involve: the middle ear, eye muscles, teeth, mouth, tonsillectomy, orchiopexy, or umbilical hernia repair.
• Some pain medications.

Control nausea by: helping your child to lie quietly, limiting movements, waiting to drink until nausea passes. At times, it is impossible to prevent vomiting. If your child vomits, wait until their stomach settles (about 30 minutes). Then give small sips of clear liquid (water, apple juice or pedialyte) or ice chips every five to ten minutes. If your child is older, you can try a Popsicle, Gatorade, Jell-O, or ginger-ale in small portions every 15 to 30 minutes. If the nausea returns, wait another 30 minutes and try again. Once your child has stopped feeling nauseous and throwing up, begin giving solid foods. Start with soft, bland foods like cooked cereal, applesauce, toast, crackers or pasta. Avoid restaurants and any fatty or greasy foods such as French fries and hamburgers.

Bathing
Follow your doctor’s instructions. In general, your child can wash with a washcloth the first day or night as long as they do not get the bandage wet. The incision and steri-strips can get wet with a shower or sponge bath after 1-2 days. Please wait 1-2 weeks before submerging under water. After a shower, pat the steri-strips dry with a towel; do not rub.

Incision site care
Your child’s stitches are dissolvable, hidden under the skin and will not need to be removed. There will be tiny paper strips, called steri-strips, covering the incision. These will fall off 1-2 weeks after surgery. If a dressing has been placed on any of the incisions this may be removed 2 days after surgery. Underneath are the steri-strips. No other special cleaning or care is required of the incision.

Urinating
How often your child urinates reflects his/her hydration (amount of fluid in their body). After surgery, a child may have a lower level of fluid in the body resulting in dehydration.

Signs of dehydration:
• Dark yellow urine
• Dry mouth (no spit)
• Chapped lips
• Soft spot sinking inwards (in babies)

If any of these things happen, increase your child’s fluids. Start with clear liquids and progress to solid foods as outlined above. Your child should return to a normal pattern of urination within 24 hours of surgery. Generally, a baby should have six to eight wet diapers in a 24-hour period, and an older child will urinate every six to eight hours.
Surgery: After Care

Constipation
Anesthesia and pain medicine can cause constipation after surgery by slowing normal activity in intestines.

**Signs of Constipation:**
- Hard, dry bowel movements
- 2-3 days between bowel movements
- Stomach pain with bowel movements
- Bowel pattern changes

Start your child on a diet high in fiber. Foods such as vegetables, oranges, other fruits and high-fiber cereals can help with constipation. Drinking more fluids can also reduce constipation problems. Sometimes over the counter medicines like colace or miralax may be helpful.

Activities
Your child's coordination may be affected immediately after surgery. To keep your child safe, it is important to follow these guidelines on the day of surgery.

**Don't let your child:**
- Walk without help
- Climb a ladder
- Go down a slide
- Play on a jungle gym
- Ride a bike, scooter or roller blade
- Snowboard or ski
- Drive a car

Operating anything that requires quick decisions can be a danger for teenagers immediately following surgery, especially while on prescription pain medicines. Please keep side rails up on cribs. Once your child’s coordination returns, they can resume pre-surgery activities, according to your doctor’s instructions. In general, for babies and young children, there are usually no activity restrictions. In older school-aged children, activities such as gym, recess, or sports should be limited for about 2 weeks following surgery. Walking, stairs, and usual daily activities are to be encouraged.

Normal behavior
It is very normal to see behavior changes after surgery. Some examples of changes include acting like a younger child (bed wetting or acting out), changes in sleeping and eating patterns, or nightmares. Being patient with your child will help reduce these changes. Comfort your child and help them feel that they are safe. Understand that your child has been upset by surgery. Most changes in behavior only last a few days to two weeks.

Return to school or daycare
Your child may return to school or daycare when able. This will vary depending on the child’s age and surgery. Some children require a few days to a week to recover and may benefit from being kept home during this time. For most surgeries, children are feeling well enough to return to school a few days later, as long as they are no longer requiring prescription pain medications.

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We are very proud of the pediatric services that we provide at Elliot Hospital. A wide range of pediatric subspecialists support the surgical program, including pediatric Gastroenterology, Pulmonary, Nephrology, Emergency Medicine, Radiology, and Integrative Medicine, as well as NICU and Pediatric Hospitalist teams. We have state of the art operating rooms available 24/7 with dedicated pediatric anesthesiologists, nurses, social workers and child life specialists. Our practice includes treatment of many common general, thoracic, and urologic problems including inguinal hernia, umbilical hernia, undescended testicle, hydrocele, tongue-tie, circumcision in the office, gallbladder problems (cholecystectomy), G-tube (stomach tube) placement, appendicitis (appendectomy), ulcerative colitis, Crohn’s disease, gastroesophageal reflux disease (GERD), and chest wall deformities (pectus excavatum and carinatum). We provide complex neonatal surgical care for newborns and premature babies in the NICU, some of whom have congenital anomalies or complex abdominal or thoracic problems. We specialize in minimally invasive treatments for babies, children and teenagers. Our team has performed countless complex and advanced procedures with excellent outcomes and overwhelming patient and family satisfaction.

Meet Our Staff

Elizabeth S. Soukup, M.D., M.M.Sc., Pediatric Surgeon

Career & Training:

- Massachusetts Institute of Technology – BS.
- University of Chicago Pritzker School of Medicine – MD, graduated first in class.
- Alpha Omega Alpha Honorary Medical Society; Outstanding Achievement Award.
- Massachusetts General Hospital – General Surgery Residency.
- Boston Children’s Hospital – Pediatric Surgery Fellowship.
- Harvard Medical School – Masters of Medical Science (M.M.Sc.) in Clinical Investigation.
- National Institutes of Health – 2 year funded National Research Service Award (NRSA) postdoctoral fellowship.
- Pediatric Surgery – Board Certified.
- General Surgery – Board Certified.
- Member of ACS, AAP, PTS and American Pediatric Surgical Association (APSA).
- Board Member - NH Trauma Medical Review Committee.

Amanda L. DuBois, MSN, APRN, FNP-BC, RNFA, Pediatric Surgery Nurse Practitioner

Career & Training:

- Saint Anselm College – BS Nursing
- University of New Hampshire – MS Family Nurse Practitioner
- National Institute of First Assisting – Registered Nurse First Assistant
- Sigma Theta Tau International Society for Nursing – Member
- New Hampshire Nurse Practitioner’s Association –Member.
- American Pediatric Surgical Nurses Association – Member
- Pediatric Advanced Life Support – Certified.
- Advanced Cardiac Life Support – Certified.

Our practice is committed to providing excellence and compassion in leading edge surgical care for children in New Hampshire, striving to keep them close to their families and communities.