AT CHILDREN’S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of this surgery and we invite you to participate. Please read the following information to learn about the surgery and how you can help.

**Fast Facts About BMT**

- Bilateral myringotomy (BY-lat-er-ull my-ring-GOT-a-mee) and tubes is a surgery in which a small opening is made in each eardrum and a small tube is placed in the opening on each side.
- BMT is an outpatient surgery that will be done at the Same Day Surgery Center at Children’s Hospital in Oakland, at Children’s North or Children’s South surgery centers.
- BMT requires general anesthesia to make your child sleep during the surgery.
- When general anesthesia is needed, there are important rules for eating and drinking that must be followed in the hours before the surgery.
- The surgery takes about 10 to 15 minutes; the recovery can take a few hours.
- Your child might be prescribed medications after the surgery.

**What Is BMT?**

BMT is a surgery to treat children who have otitis media (oh-TITE-us MEE-dee-ya) or middle ear infections that won’t go away with medication; middle ear fluid that won’t go away; or hearing loss or speech delays caused by frequent ear infections.

- In a BMT, the surgeon will put small tubes in your child’s eardrums to allow air to get inside. When air is able to get behind the eardrum, the fluid inside the ear can flow out or dry up, taking away the pain or pressure your child may have been feeling and making future infections less likely.
- An ear tube is made of plastic and looks like a tiny spool. More than 25 of them could fit on the face of a dime. They are so small that you usually cannot see the tubes just by looking into your child’s ear.
- In most cases, ear tubes do not need to be removed and usually are pushed out on their own after about 6 to 18 months, as the eardrum heals. If a tube remains in the eardrum for more than 2 or 3 years, however, it may need to be removed by your doctor.

**Home Preparation**

When general anesthesia is needed, there are important rules for eating and drinking that must be followed in the hours before the surgery. One business day before your child’s surgery, a surgery nurse will call your home between 1 and 9 p.m. (Surgery nurses do not make these phone calls on weekends or holidays.) Please have paper and a pen ready to write down instructions.

- The nurse will ask you about your child’s medical history, current medications and readiness for the BMT. If you have any questions, you may ask the nurse at this time.
- The nurse will tell you what time you should arrive at the hospital or surgery center. Allow extra time for travel and parking. Arriving late may delay your child’s surgery or cause it to be postponed.
- The nurse will give you specific eating and drinking instructions for your child based on your child’s age. Following are the usual instructions given for eating and drinking. No matter what age your child is, you should follow the specific instructions given to you on the phone by the nurse.

**For children older than 12 months:**

- After midnight the night before the surgery, do not give any solid food or non-clear liquids. That includes milk, formula, juices with pulp, coffee and chewing gum or candy.
For infants under 12 months:
- Up to 6 hours before your scheduled arrival time, formula-fed babies may be given formula.
- Up to 4 hours before your scheduled arrival time, breastfed babies may nurse.

For all children:
- Up to 2 hours before your scheduled arrival time, give only clear liquids. Clear liquids include water, Pedialyte®, Kool-Aid® and juices you can see through, such as apple or white grape juice.
- In the 2 hours before your scheduled arrival time, give nothing to eat or drink.
- For the safety of your child, it is important to follow these specific times for eating and drinking. Remember: If your child does eat or drink after the scheduled times, it will delay the surgery or cause it to be rescheduled for another day.

A Parent’s/Guardian’s Role During the Surgery
The most important role of a parent or guardian is to help your child stay calm and relaxed before the test. The best way to help your child stay calm is for you to stay calm.
- Once your child has been registered for the surgery, a nurse or nurse practitioner will meet with you to take your child’s vital signs, weight and medical history.
- Your child’s surgeon will meet with you to discuss the surgery and answer any questions you might have.
- A pediatric anesthesiologist, a doctor who specializes in anesthesia for children, will meet with you and your child to review your child’s medical information and decide which kind of sleep medication your child should get. As the parent or legal guardian, you will be asked to sign a consent form before the anesthesia is given.
- If you wish, you may stay with your child until just prior to the sleep medication being given, and then you will be taken to the waiting room.
- You may bring along a “comfort” item—such as a favorite stuffed animal or “blankie”—for your child to hold during the surgery.

Going To Sleep
- If your child is very scared or upset, the anesthesiologist may give a special medication to help him or her relax. This medication is flavored and takes effect in about 10 to 15 minutes.
- Younger children will get their sleep medication through a “space mask” that will carry air mixed with medication. Your child may choose a favorite scent to flavor the flowing through the mask. There will be no shots or needles used while your child is still awake.
- Older children may choose between getting their medication through the mask or directly into a vein through an intravenous (IV) line.

While Asleep
- While your child is asleep, his or her heart rate, blood pressure, temperature and blood oxygen level will be checked continuously.
- Your child might be given an injection (shot) of pain medication.

The Surgery
Using a microscope, the surgeon will gently clean inside your child’s ears, make a tiny opening in the eardrum and insert the tube. The surgery itself will take only about 10 to 15 minutes.

Waking Up
When the surgery is over, the medications will be stopped and your child will begin to wake up.
- When your child is moved to the recovery room, you will be called to the bedside so that you can be there as he or she wakes up. It is OK to hold your child in your arms or on your lap.
- Your child will need to stay in the recovery room to be watched until he or she is alert and his or her vital signs are stable. The length of time your child will spend in the recovery room may be different from other patients because some children take longer than others to wake up after anesthesia.
- Children coming out of anesthesia have a variety of reactions. Your child might cry, be fussy or confused, feel sick to his or her stomach, or vomit. Very young children and infants might cry and “arch” their backs. These reactions are normal and will go away as the anesthesia wears off.
- You might notice a band-aid and a little red mark on your child’s arm from the injection of pain medication.
- Your child will have no memory of the surgery.
- In the recovery room, he or she will be encouraged to drink or to eat an ice pop.
BILATERAL MYRINGOTOMY AND TUBES (BMT) cont’d

Going Home
After your child is discharged and goes home, he or she may still be groggy and should take it easy for the day.

- Your child may resume normal activities at the rate he or she is comfortable with by the next day.
- Your child may begin to eat and drink a little at a time and resume normal eating and drinking as long as he or she is feeling well. Clear liquids and bland foods may be given if he or she has an upset stomach.
- A nurse will call you 24 hours after the surgery to see how your child is doing.

Ear Care At Home
- If the surgeon prescribed ear drops after the surgery, follow the schedule. You can “pump” the drops into your child’s ear canal by gently pushing on the stiff part of the outer ear that covers the entry to the canal.
- Ear drainage may be gently cleaned from the OUTSIDE of the ear with cotton swabs dipped in hydrogen peroxide, or by using a washcloth with soap and water.
- The doctor might suggest that you use earplugs or a neoprene “ear band” cover when your child bathes or swims to keep dirty water out of the ear drums.
- NOTHING should be put directly into the ear canal except eardrops, and only as directed by the surgeon.
- You might be asked to follow up with your child’s ENT doctor, or your pediatrician, to have the ear tubes checked after the surgery.

Common Symptoms After BMT
After the BMT surgery, you may notice some of the following signs. These symptoms are normal:

- Fluid draining from your child’s ears. Fluid may be any color and may even be a little bloody. Ears may drain for several days.
- Mild pain. You may give a non-aspirin pain reliever, such as Tylenol or acetaminophen, as directed for your child’s age.

Warning Signs After BMT
Although most children recover quickly from the BMT surgery with no problems, you should call your child’s ENT doctor or pediatrician right away if your child has any of the following symptoms:

- Large amounts of bright red blood
- Severe pain, especially if your child holds his or her head or tugs his or her ears
- Fever higher than 100°F
- Severe nausea or vomiting, or can’t keep clear liquids down
- Breathing trouble
- Rashes anywhere on his or her body

Special Needs
If your child has any special needs or health issues you feel the doctor needs to know about, please call the Division of Otolaryngology at Children’s Hospital before the surgery and ask to speak with a nurse. It is important to notify us in advance about any special needs your child might have.

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To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.