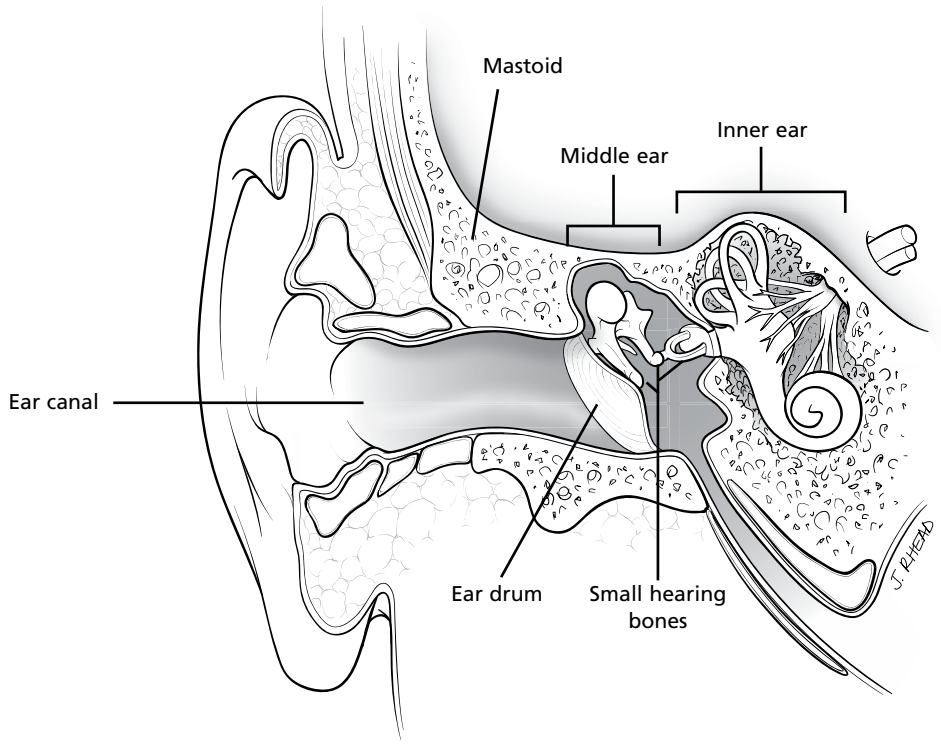
Let's Talk
ABOUT...

# Middle ear surgeries




The middle ear is an air filled space containing the ear drum and small bones important for hearing. The ear drum or small bones can be damaged in an accident or from infection, or it did not develop properly. If this happens, your child may need one of the surgeries described below.

**Tympanoplasty:**

In this surgery, the surgeon repairs the eardrum by using a tissue graft. The surgeon will also check the hearing bones that carry the sound from the eardrum to the inner ear. The surgeon may place a piece of dissolvable sponge material in the middle ear and ear canal to keep the graft in place. Your doctor may ask you to place ear drops in your child's ear before your child's first postoperative appointment. These drops make the sponge dissolve quicker.

**Tympanoplasty with mastoidectomy:**

The mastoid bone is an air space behind the ear canal. The space looks like a honeycomb. It can trap infection or be filled with trapped skin called a **cholesteatoma** (coe-LESS-tee-ah-TOE-mah). The trapped skin can fill the space behind the ear drum (middle ear space) and eat away the hearing bones or other important structures. The **mastoidectomy** (mass-toyd-ECK-toe-me) surgery is where the surgeon removes infection or the skin growth. If there is a lot of skin trapped in the ear, the surgeon

may do a second surgery. The number one priority with the second surgery is to take out the trapped skin. The surgeon may have to take out some or all of the hearing bones or make a large cavity so the ear canal is a lot bigger. Once the skin is removed, there may be a chance to improve your child's hearing by placing an artificial bone implant called **prosthesis** (pross-THEE-sis). This last surgery is called an **ossiculoplasty** (oh-SICK-you-low-plass-tea).

### Ossiculoplasty:

The surgeon does this surgery to improve hearing loss caused by missing hearing bones or hearing bones that don't work. The surgeon makes a small cut behind the ear or in the ear canal. Usually, the surgeon places an artificial bone in the ear. The surgeon may also use a small piece of cartilage from the ear for the repair.

## Diet

### When can my child eat?

After your child wakes up from the procedure, he can take clear liquids that are easily digested. Clear liquids include Pedialyte®, water, apple juice, Gatorade®, Popsicle®, and plain Jell-O®. Most babies can take a bottle or resume breastfeeding. Your child may resume a normal diet after leaving the hospital. You should start with soft, easily digested foods. Try to stay away from high fat or greasy foods like hamburgers and pizza for 24 hours following the procedure.

### What should I do about nausea and vomiting?

Sedation from the procedure, car movement, and pain medicine can all cause nausea and vomiting. You can control nausea and vomiting by having your child lie quietly and decrease movement. You should also not let your child drink until he feels better. For ossiculoplasty procedures, we do not want your child to retch or vomit since that may make the prosthesis move out of place. Your doctor may tell you to give your child medicine to reduce the nausea. Sometimes you can't prevent vomiting. If your child vomits, wait until his stomach has settled down (about 30 minutes after vomiting), then have him take small sips of clear liquids or ice chips (small pieces of ice).

## Pain

### How can I tell if my child is in pain?

Your child may have a sore throat and ear discomfort after surgery. All procedures cause some pain, but it is important for your child to be comfortable so he can heal. Try repositioning his head or raising his head for more comfortable sleeping. If he is older, you can talk to him about his pain and assess his needs. If your child is younger or developmentally delayed, he may moan, whimper, make a face of pain, cry, be irritable, be inactive, not eat, or not sleep. In all cases, you should offer your child comfort and listen to his concerns.

### What medicines does my child need?

Your doctor will prescribe pain medicine to be used regularly until the pain goes away. The pharmacy can flavor the medicine to make it easier to take. If the prescription medicine is no longer needed, use over-the-counter Tylenol® to manage your child's pain. Your child's doctor may prescribe an antibiotic and ear drops.

**Warning:** Do not give your child aspirin or drugs such as ibuprofen, Advil®, or Motrin®. These medicines can cause excessive bleeding.

## Wound Care

### How should I care for the wound and ear?

The doctor will fill your child's ear canal with ointment and put dissolvable sponge material in the middle ear to keep the graft in place. This material may drain from your child's ear canal over several days. Your child's hearing may be worse because of the packing. As the sponge material dissolves, your child's hearing should improve. If your doctor had to remove some of the hearing bones, your child's hearing will be worse. Remind your child not to blow his nose or sneeze with his mouth closed until your doctor says it is ok. If your child has a new

eardrum or prosthesis, forceful blowing may dislodge it. It is better to sniff or dab a runny nose. Your doctor may tell you to put ear drops into your child's ear canal before your postoperative appointment so the ear packing dissolves quicker.

### How much drainage is normal?

There may be some ear drainage for a few days after surgery. A small amount of blood and drainage is normal. You may see some old blood or scabs come out of the ear. The drainage should not soak through the dressing completely. Call your doctor if the bleeding does not stop, if the drainage becomes foul smelling, or there is drainage after a few days.

### When can the dressing come off?

After surgery, there will be a cotton ball in your child's ear canal and a plastic cover over the cotton ball to keep it in place. Change the cotton ball once a day or as needed. Put some vaseline or antibiotic ointment in the cotton ball. This will help prevent cotton fibers from getting stuck in your child's ear canal. Remove the plastic cover the day after surgery.

## Bathing/Showering

### When can my child take a bath or shower?

Your child may bathe or shower, but you should keep his ear canal dry. Loosely place a cotton ball coated with petroleum jelly into the ear canal and/or a wash cloth over the ear canal to limit the amount of water that will enter the ear canal. If your child has an incision behind his ear, keep the water from touching the incision for the first two days after surgery. This means your child can bathe if there is no splashing and his head is kept out of the water. You may also give him a sponge bath. Do not wash his hair for the first two days after surgery.

## Activity

### How active can my child be?

Your child will be more tired than usual for about 24 hours after surgery. Sedation can also effect his coordination. Have him avoid activities such as sports, riding bikes, or swimming for the first 24 hours after surgery. Teenagers and young adults should not drive a car for 24 hours or while taking narcotic pain medications.

Your child can return to normal activities as he recovers from the surgery. It will take anywhere from 1–7 days for your child to be active again. Most children feel better in about three days. About this time, he may return to school. Ask you doctor about participation in sports or gym activities.

Because exposure to water may cause an infection, your child may not participate in water activities such as swimming, diving, water skiing or wakeboarding. Do not allow him to swim until your child's doctor says it is ok.

## Behavior

### What is normal behavior after surgery?

It is very normal to see behavior changes after surgery. If behavior changes last longer than 3–4 weeks, call your doctor. Some examples of changes include regression (bed wetting or acting out), changes in sleep and eating patterns, or nightmares. Being patient with your child will help reduce these changes.

## Calling the doctor

### When should I call the doctor?

- Excessive bleeding
- Dizziness — could be a sign of a inner ear problem
- Persistent nausea and vomiting
- Temperature over 102 ºF.
- Drainage from the wound increases
- Uncontrolled pain
- Numbness of fingers and toes
- Signs of dehydrations — dry mouth, less than 6–8 wet diapers, lack of tears

- Excessive diarrhea or constipation
- Chest pain or shortness of breath: **Go to the Emergency Room or Call 911!**

## How do I call the doctor?

Call the Ear Nose and Throat (ENT) office at 801.662.1740 during office hours, 8:30 a.m. to 4:30 p.m., and speak to the nurse. If the office is closed, call the operator at Primary Children's Medical Center, 801.662.1000, and ask for the Pediatric ENT Resident. The resident can be reached at any time.

### What about a follow-up appointment and is there a web site if I have other questions?

Call your doctor's office as soon as possible and make an appointment for 4–6 weeks after surgery. For further questions, access our Internet site at: www.primarychildrens.org, then click on the Kids Health link. (A Primary Children's partnered online health resource for families.)

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Pediatric Education Services, 801.662.3500 | Rev. 08/12, LTA520408153 | *Available in Spanish*