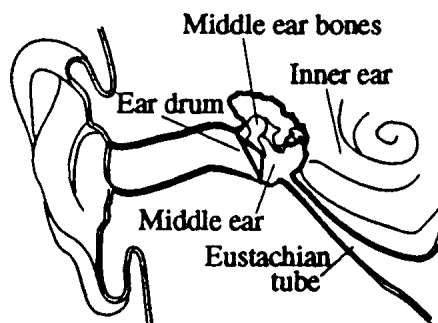


# Ear Infections and Ear Tubes



In order to hear well sound must travel down the ear canal and vibrate the ear drum, hearing bones and inner ear. There must be air behind the ear drum for this to happen. Air gets there through the **Eustachian Tube**, which runs from behind the nose to behind the ear drum. Sometimes, either because it is not mature yet or has not developed properly, the Eustachian Tube does not work well, so not enough air gets into the space behind the eardrum.

When this happens the air that is behind the eardrum gets absorbed by the body but not replaced. This creates a vacuum which pulls tissue fluid into the space behind the ear drum (the middle ear). This fluid dampens the movement of the ear drum causing a temporary hearing loss which can lead to speech and school problems. The fluid can also become full of bacteria creating an ear infection. Occasionally the vacuum also causes some thinning and deterioration of the ear drum. Most children outgrow ear problems by age 5 or 6 years, almost all by 9 or 10, however some people have life long problems with their ears. When ear infections are recurrent, there is significant hearing, speech and/or school problems, or when the eardrum is deteriorating, ear tubes may be recommended.

## What Do Ear Tubes Do?

Pressure Equalization or **PE tubes** are placed into and hold open a **small hole in the eardrum** called a myringotomy or a tympanostomy. **Air passes through the tube into the space behind the eardrum** so a vacuum does not develop and fluid does not form thus avoiding hearing problems and minimizing ear infections. Typically **the tube stays in the eardrum for 6 to 12 months or longer**. Hopefully by the time the tube comes out, the Eustachian Tube has matured to do the job itself. If not problems may recur and **another set of tubes may be needed. About 30% of children need a second set of tubes.**

In general most children with ear tubes do quite well. However a few problems can arise including plugging of the tubes perhaps requiring them to be replaced, failure of the tube to fall out after 2 to 3 years requiring it's removal, drainage from the ears at sometime while the tubes are in place (15%) which usually clears with ear drops but occasionally requires tube removal (2%), or a hole in the ear drum after the tube comes out (2%). These holes are usually small and usually don't affect the hearing but may need some kind of surgical repair at an older age. Scarring of the eardrum from ear tube placement is not a significant problem at all, and when it does occur it almost never affects the hearing. □

## The Day of Surgery

**On the day of surgery the patient should have nothing to eat after midnight but may have CLEAR liquids up to 6 HOURS before surgery. NOTHING AT ALL should be taken by mouth, not even water, for six hours prior to surgery.** An exception to this would be any medications the doctor has instructed you to take that morning. These can be taken with a **MINIMAL SIP** of water if necessary. **Failure to follow these guidelines will likely result in the cancellation of surgery.** If you have questions about this please call the office.

You will need to **arrive at the surgical facility well before the scheduled time of surgery.** A day or two before surgery someone from the surgical facility will call to tell you what time to arrive. When you arrive a nurse will take some information from you and someone from the anesthesia department will talk with you. A Parent may accompany his or her child to the operating room to be with them as they breath anesthetic gas through a mask to go to sleep, but may not stay for the actual operation. If you desire to go to the OR with your child please say so as soon as you speak

with the nurse preoperatively. On rare occasions an IV will be started and then typically only after the child is asleep. The surgery takes about 15 minutes. **Please stay in the waiting room the whole time your child is in surgery.** Following the operation your surgeon will come talk to you and our child will be in the recovery room for about 30 minutes. You will be able to sit with your child for part of this recovery time. You will usually be allowed to go home about 30 minutes after surgery.

### Once You Are Home

Once home allow your child to slowly drink some clear liquids. If in a half hour he or she is doing well then slowly allow a more normal diet to be eaten as desired. If the child vomits wait about an hour and try the clear liquids again. Your child may be clumsy due to the anesthesia that day so **watch them closely and avoid situations that could lead to a fall.** The following day he or she may return to school and resume normally activity. Your child may be fussy or have some mild pain, if so you may give some Tylenol (acetaminophen). Be sure to follow label directions. **You may see some clear, cloudy or bloody drainage from the ear for 3 to 4 days after surgery** which should not worry or alarm you.

You may be given some a prescription for, or a bottle of, ear drops at the time of surgery. Follow the physician's or bottle directions for these, usually **5 drops each ear 2 times per day for 5 days.** Should the ear drain for more than 5 days use the drops in the draining ear for 10 days. If this does not resolve the problem please call the office. Occasionally the drops may seem to cause some pain or discomfort when first placed in the ear, don't let this alarm you. Hold onto the drops as they have a long shelf life and may be needed later.

### Follow-Up Care

As discussed above there may on occasion be some drainage, (other than wax), from the ears. If so use the ear drops for 7 to 10 days. If the problem persists or becomes recurrent please call the office. You can help minimize the chance for drainage by **keeping water out of the ears.** This means just being careful when the hair is washed as it is hard for water to get down into the ear canal. If the patient is swimming 2 feet or more under water ear plugs ideally should be worn. Fitted ear plugs and swimming head bands can be purchased at the office if you desire. Insurance does **not** pay for these items.

**Please make an appointment with our office to have your child's ears checked about 3 to 4 weeks after surgery.** This visit is to be sure that the tubes are in proper position and that they are not plugged with blood or mucous. There is no charge for this *first* postoperative examination. Your child may have a hearing test done at that visit. There *is* a charge for this test as well as any ear plugs and head bands you purchase. If all is going well the doctor will usually check the ears every 8 to 10 months after the first check until the tubes are out and the ears are healthy. Should your child develop recurrent ear problems prior to your regular check up, or should questions arise, please call the office.

### Medications

- Ear drops, 5 drops each ear 2 times per day for 5 days
- Tylenol for pain, follow bottle directions
- Other medications as usual

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### Ear Nose and Throat Center

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