

# **Ear Tubes**

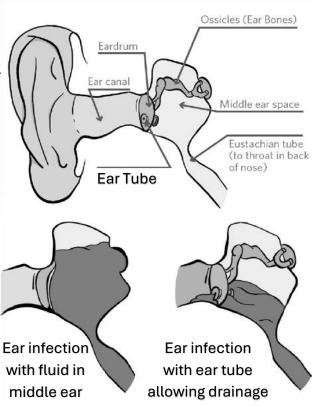
Post-operative instructions
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# Why are ear tubes recommended?

Ear tubes are recommended for frequent ear infections or prolonged number of ear infections and allow any future ear infections to be treated with antibiotic ear drops instead of antibiotics that are taken by mouth. They can also help prevent fluid from backing up into the area behind the eardrum (middle ear) and improve hearing that is decreased because of fluid in the middle ear. Most ear tubes last about 6 to 18 months. By the time the tube comes out about 80% of children will have much better ear function and will not need to have the tube replaced.

### What does surgery involve?

Tubes are placed in the operating room. It is an outpatient procedure, which means you go to the surgical center and leave the same day. Typically, you will meet an anesthesiologist



on the day of surgery and they will explain anesthesia and pain management. Usually, they use a small mask and provide gas to sleep during the short procedure (less than 10 minutes). After the procedure your child may be upset for a few minutes while the anesthesia is wearing off, but within 20 minutes they are back to normal. Pain is minimal and usually managed with over-the-counter medications (Tylenol/acetaminophen or Advil/ibuprofen). Our office will send a prescription for ear drops to your pharmacy prior to surgery. Please pick up those drops and have them to use after surgery. Your surgeon will let you know how many drops and days to use them.

#### What do ear tubes do?

Ear tubes will help decrease the number of ear infections, but your child may still get an ear infection when he or she has ear tubes. When the tube is open and working, you may see drainage at the opening of the ear canal. This is an ear infection. Before the ear tubes, this drainage would stay in the middle ear, trapped behind the eardrum, unless the pressure caused the eardrum to burst or rupture. Now that the tube makes an opening in the eardrum (aka perforation), drainage will come through the ear tube into the ear canal.

Drainage can be thin, thick, cloudy, yellow, or green, and even bloody. Most children do not typically have fever or pain when they have ear drainage with tubes in place.

*If you see drainage* from the ear, we recommend the following:

- Antibiotic ear drops are all that is needed in most cases (usually ofloxacin or ciprofloxacin-dexamethasone).
- Do NOT use ear drops over the counter (or anything containing alcohol).
- Ear drainage may build up or dry at the opening of the ear canal. Remove the crusting with a cotton-tipped swab dipped in hydrogen peroxide or warm water. If the drainage is thick, you can also roll up a piece of tissue or toilet paper to help soak the drainage out before you use ear drops.
- Do not swim during infections when there is drainage or discharge coming from the ear. During bathing, use silicone ear plugs, or coat a small cotton ball with petroleum jelly and use it to cover the opening of the ear canal.
- Use the ear drops only for time recommended by your doctor, (usually 1 day further than you see drainage) because using them too long could result in a yeast or mold infection. Do not use drops for more than 1 week.

# What are possible reasons why my doctor or health care provider may diagnose an ear infection when we haven't seen drainage yet?

- The tube is open and drainage has started but is not yet seen at the ear canal opening. This suggests an early stage of infection for which antibiotic ear drops will help it go away quickly.
- The tube is not working or is blocked, so the ear infection is treated as if the tube was not there. This is a time when antibiotics by mouth may be needed. The blocked tube does not do any harm (and will not cause a problem), but it also will not drain the infection. Use acetaminophen or ibuprofen for pain.
- The tube is open but there is no drainage in the tube opening or ear canal. In this case no special treatment is
  necessary, even if the eardrum appears red or irritated, which can occur when your child cries or has fever without
  an ear infection.

### What are the possible complications of ear tubes?

- Perforation. About 1-2 out of every 100 children will still have a hole (perforation) in the eardrum after a short-term tube falls out, with up to 1 in every 5 children having a perforation after a long-term tube. The hole will often close on its own, but if it does not, it can be repaired in the operating room as a day surgery procedure.
- Tubes falling in. Tubes almost always fall out of the eardrum into the ear canal. Very rarely a tube can fall into the middle ear, but usually does not cause any problem and can be removed, if needed.
- Tubes not coming out. Most tubes come out within 12 to 24 months. If the tube is still in after 2 to 3 years, or longer, it can be removed. Often they can be removed in clinic. Occasionally you may need to go back to the operating room to have the tube removed.
- Tube coming out too early. In rare cases the tube may fall out before 6 months, but many children will have
  improved by that time. For those who continue to get ear fluid or frequent ear infections a tube may need to be
  replaced.

### What about water activities?

Your child will not usually need ear plugs for swimming and bathing while the tubes are in place and open. Head bands like the Ear Band-it or other special efforts to keep water from entering the ear canal are also unnecessary, but may be helpful in the following situations:

- Pain or discomfort when water enters the ear canal
- Current fluid or drainage from the ear canal (an ear infection with the tube), or your child has had frequent drainage
- Swimming in lakes or non-chlorinated pools that are not clean
- Dunking head in the bathtub (soapy water passes through the tiny hole in the tube easier than plain water)

There are several types of soft ear plugs or ear putty available, as well as neoprene headbands to cover the ears. NEVER use Play-Doh or Silly Putty as an ear plug—these materials can become trapped in the ear canal and even require surgical removal.

## When to Call the Ear Doctor (Otolaryngologist):

- 1. Your child's regular doctor or health care provider can't see the tube in the ear, or the tube is blocked.
- 2. Your child has hearing loss, continued ear infections or continued ear pain/discomfort.
- 3. Ear drainage continues for more than 7-10 days without improvement with treatment.
- 4. Drainage from the ear occurs frequently or more than you think should happen.
- 5. There is wax build-up in the ear canal that doesn't allow the tube to be seen.

**SOURCE:** Rosenfeld RM, Tunkel DE, Schwartz SR, et al. Clinical Practice Guideline: Tympanostomy Tubes in Children (Update). *Otolaryngol Head Neck Surg*.2022;166(1 suppl):S1-S55.

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