



Ear tubes education sheets

How to Care for Your Child's Ear Tubes

Ear tubes help protect your child from ear infections, middle-ear fluid (liquid behind the eardrum), and the hearing problems that go along with them. Most tubes last about 6 to 18 months, allowing many children time to outgrow their ear problems. Most tubes fall out by themselves. The chance of a tube falling in, instead of out, is very rare. Tubes that do not come out after 3 or more years may need to be removed by your doctor.

Possible Complications of Ear Tubes

Complications of ear tubes are usually minor. Some children develop a white mark or patch on the eardrum which is called sclerosis. It *does not* affect your child's hearing or future chance of ear infections. Some children develop a small depression or pocket in the eardrum at the tube site after it falls out. Again, this does not affect hearing and rarely requires treatment. About 1-2 out of every 100 children will develop a small hole (perforation) of the eardrum after the tube falls out. The hole will often close on its own over time, but if it does not, it can be patched in the operating room.

Ear Tubes and Water Precautions

Some children with ear tubes wear ear plugs when swimming. The ear plugs keep water out of the ear canal and out of the ear tube. However, water does not usually go through the tube during swimming. As a result, ear plugs are not necessary for most children.

Although most children with tubes do not need ear plugs, they may be necessary in the following situations:

- Pain or discomfort when water enters the ear canal
- Discharge or drainage is observed coming out of the ear canal
- Frequent or prolonged episodes of ear discharge

Other times when ear plugs may be needed on an individual basis are:

- Swimming more than 6 feet under water
- Swimming in lakes or non-chlorinated pools
- Dunking head in the bathtub (soapy water has a lower surface tension than plain water)

A variety of soft, fitted ear plugs are available, if needed, as are special neoprene headbands to cover the ears. *Never* use Playdoh or silly putty as an earplug, because it can become trapped in the ear canal and require surgical removal. Once the tube becomes blocked or comes out, ear plugs are not needed if there is no hole in the eardrum.

Ear Tube Follow-Up and Aftercare

Routine follow-up with your doctor every 4 to 6 months is important to make sure that your child's tubes are in place and to check for any possible problems. All children need follow-up no matter how well they are doing. Children often feel well even when there is a problem with the tube. Once the tubes fall out, your child should return for a final re-check after 6-12 months so your doctor can check the ears and be sure that fluid has not built up again.

Ear Tubes and Ear Infections

Your child may still get an ear infection (acute otitis media) with a tube. If an infection occurs, you will usually notice drainage or a bad smell from the ear canal.

If your child gets an ear infection *with* visible drainage or discharge from the ear canal:

1. Do not worry: the drainage indicates that the tube is working to drain infection from the middle ear space. Most children do not have pain or fever with an infection when the tube is in place and working.
2. Ear drainage can be clear, cloudy, or even bloody. There is no danger to hearing.
3. The best treatment is antibiotic ear drops *alone* (ofloxacin or ciprofloxacin-dexamethasone). Place the drops in the ear canal two times a day for up to 10 days. "Pump" the flap of skin in front of the ear canal (tragus) a few times after placing the drops. This will help the drops enter the ear tube.
4. Ear drainage may build up or dry at the opening of the ear canal. Remove the drainage with a cotton-tipped swab dipped in hydrogen peroxide or warm water, a cotton ball to absorb drainage, or gently suction with an infant nasal aspirator.
5. Prevent water entry into the ear canal during bathing or hair washing by using a piece of cotton saturated with Vaseline to cover the opening; do not allow swimming until the drainage stops.
6. To avoid yeast infections of the ear canal, do not use antibiotic eardrops frequently or more than 10 days at a time.
7. Oral antibiotics are *unnecessary* for most ear infections with tubes unless your child is very ill, has another reason to be on an antibiotic, or the infection does not go away after using ear drops.

If your child gets an ear infection *without* visible drainage from the ear canal:

1. Ask your primary doctor if the tube is open (functioning); if it is, the infection should resolve *without* a need for oral antibiotics or antibiotic ear drops.
2. If your doctor gives you an antibiotic or ear drop prescription anyway, ask if you can wait a few days before filling it; chances are high you will not need the medication. Use acetaminophen or ibuprofen to relieve pain, if necessary, during the first few days.
3. If the tube is not open, the ear infection is treated as if the tube was not there; the blocked tube does not do any harm (and will not cause a problem), but it also does not do any good.

When to Call the Ear Doctor (Otolaryngologist)

Call the ear doctor if any of the following occur:

1. your child's regular doctor can't see the tube in the ear
2. your child has hearing loss, continued ear infections or continued ear pain/discomfort
3. ear drainage continues for more than 7 days
4. drainage from the ears occurs frequently
5. there is excessive wax build-up in the ear canal

If users would like to receive a word version of the education worksheet to customize their own handouts, please send an email to guidelines@entnet.org.

SOURCE: Rosenfeld RM, Schwartz SR, Pynnonen MA, et al. Clinical Practice Guideline: Tympanostomy Tubes in Children. *Otolaryngol Head Neck Surg*. 2013; 149(1S):S1-S35

About the AAO-HNS

The American Academy of Otolaryngology—Head and Neck Surgery (www.entnet.org), one of the oldest medical associations in the nation, represents about 12,000 physicians and allied health professionals who specialize in the diagnosis and treatment of disorders of the ears, nose, throat, and related structures of the head and neck. The Academy serves its members by facilitating the advancement of the science and art of medicine related to otolaryngology and by representing the specialty in governmental and socioeconomic issues. The AAO-HNS Foundation works to advance the art, science, and ethical practice of otolaryngology-head and neck surgery through education, research, and lifelong learning. The organization's vision: "Empowering otolaryngologist-head and neck surgeons to deliver the best patient care."