

Risks may include:

- Perforation – This can happen when a tube comes out or a long-term tube is removed and the hole in the ear drum does not close. The hole can be patched through a surgical procedure.
- Scarring – Scarring in the ear drum can occur from ear infections or the insertion of ear tubes. In most cases, this causes no problems with hearing.
- Infection – Ear infections can still occur in the middle ear or around the ear tube. These infections are usually less frequent, result in less hearing loss, and are easier to treat.
- Ear tubes come out too early or stay in too long – If an ear tube expels from the eardrum too soon, fluid may return and repeat surgery may be needed. Ear tubes that remain too long may require removal from your ENT doctor.

Do I have to keep water out of my child's ears?

During the time the tube is in place in the eardrum, it is recommended that the ear be kept dry during bathing and/or swimming. In small children, if the ear is not submerged during bathing, earplugs are not necessary. You can pour water over your child's head, scrub the ear with a moist washcloth and splash and play in the tub with minimal risk of water getting in the ear. Older children and adults who actively swim and put their heads and ears under water may require the use of earplugs. Your doctor will discuss the various types of ear protection that are available.

Can my child have ear infections with ventilation tubes?

Ventilation tubes are successful in 85-90% of patients. They will either stop the infections or decrease the frequency of infections. They are not 100% successful however, and it is possible for your child to have continued infections despite ventilation tube placement.

How will I know if the ear is infected with ventilation tubes?

If an ear infection does occur while the tube is in place, drainage will usually be noticed from the ear canal. Ear infections with tubes can often be treated using antibiotic eardrops for several days. Oral antibiotics can often be avoided. If drainage does occur, please notify our office or your primary care doctor.

Will my child need another operation after ventilation tube placement?

Most children who have ventilation tubes placed will hold the tubes in position in their eardrum for 12-18 months and then the tubes will be pushed out of the eardrum into the ear canal. The eardrum will heal itself and the ear will return to normal function (dependent on its natural eustachian tube function). Children that use ventilation tubes to control their ear infections are at a small risk (5-10%) to need a second minor outpatient procedure. The most common reasons for a second operation are:

1. Replacement of tube(s) due to continued ear infections,
2. Removal of a tube if it has not fallen out of the eardrum on its own,
3. Replacement of a tube if it becomes plugged with wax or mucous,
4. Patching of hole in the eardrum after the tube has fallen out of the eardrum if it has not healed naturally.

Will my child have any permanent hearing loss?

Permanent hearing loss from otitis media is unusual if your primary care doctor and your ENT physician follow the ears closely. Most hearing loss is temporary secondary to middle ear fluid. Hearing will return to normal after the fluid clears from the middle ear, whether by medical therapy or the use of ventilation tubes in most cases.



VENTILATION TUBES


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Why does my child keep having ear infections?

Ear infections are the most common illness in children and may also occur in adults. Children are more likely to develop ear problems due to poor air exchange with the middle ear space. Ventilation of the ear should occur through a muscular tube called the eustachian tube. The eustachian tube extends from the middle ear space to the back of the nose. Almost all children before the age of five will have at least one ear infection (otitis media). Most ear infections either resolve on their own (viral) or are effectively treated by antibiotics (bacterial). Fifteen percent of children will develop chronic and/or recurrent ear infections due to a poorly functioning eustachian tube. Chronic ear infections can lead to other issues, such as hearing loss or behavior and speech problems.

Eustachian tube function is usually age dependent and will improve as the child becomes older. The established “risk factors” for chronic otitis media with effusion are:

- Prematurity
- Onset of chronic ear infections before one year of age
- Daycare
- Smoke exposure
- Family history of otitis and/or ventilation tube placement

Treatment Options

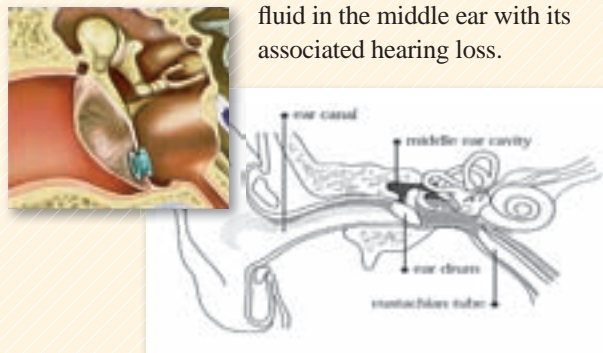
Antibiotic therapy is the first line of treatment if the symptoms of your child’s ear infections are controlled. These symptoms may include:

- Fever
- Digging at the ears
- Irritability
- Poor eating
- Awakening at night
- Hearing loss

Inserting ear tubes may:

- Reduce the risk of future ear infections
- Restore hearing loss caused by middle ear fluid
- Improve speech and balance problems
- Improve behavior and sleep problems caused by chronic ear infections

When antibiotic therapy has not been able to control the symptoms of an ear infection or fluid has not cleared from behind the eardrum for three months or longer, ventilation tubes may be considered. A ventilation tube is a tiny artificial device that is inserted into an incision in the eardrum. The ventilation tube will maintain an opening in the eardrum, allowing air exchange (ventilation) between the middle ear space and the external ear canal. This “bypass ventilation” of the middle ear is 85% effective in preventing persistent and recurring ear infections. It also prevents the chronic buildup of fluid in the middle ear with its associated hearing loss.



How are ventilation tubes inserted into the ear?

The ventilation tubes can be placed in the eardrum under a local anesthetic in the office with adults and older children. Younger children will require a short general anesthetic in an operating room at the hospital. This outpatient procedure is called a myringotomy, which is an incision in the eardrum. A tube is then inserted to allow air to reach the middle ear space. In most situations, you or your child will be discharged from the hospital within several hours following completion of the operation. Patients usually experience little or no post-operative pain, but grogginess, irritability, and/or nausea from the anesthesia can occur temporarily. Normal activity can be resumed the following day.

Ear tube surgery is the most common childhood surgery performed with anesthesia. The average age for ear tube insertion is one to three years.



Care after Surgery

Your doctor will discuss post-operative care with you individually. In most cases, you will be asked to place ear drops in the operated-on ear(s) three times a day for three to four days. It is important that you push on the ear canal and pop any air bubbles to make sure the drops go all the way down into the ear canal. You can also warm the drops by putting the ear drop bottle in a cup of warm tap water or in your pocket for three to five minutes so the drops do not feel cold when put in the ear canal.

Exposure to chlorinated pool water and bath water is unlikely to cause ear infections in ears with ventilation tubes. Depending on you and your child’s anatomy, your doctor may recommend earplugs. Swimming in lake or river water is far more likely to expose the ear to bacteria that might lead to an ear infection, and it is recommended that earplugs be used.

Your physician will evaluate you or your child’s tubes two weeks post-operatively in the office and recommend routine follow-up exams every three to four months while the tube(s) remains in the ear(s).

The risk and complications of ventilation tubes must be weighed against their benefit in treating persistent ear infections. Your ENT doctor will help you with these decisions.