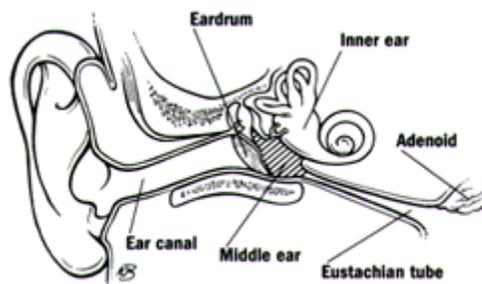


Earaches: A Painful Problem for Many Children

How does the ear work?

The ear works by receiving sound waves and sending messages to the brain. The outer ear includes the part of the ear you can see and the ear canal. The sound waves go through the ear canal and hit the eardrum and cause it to vibrate.

The vibration of the eardrum causes the tiny bones in the ear to move. This movement sends the sound waves to the inner ear.



The inside of the ear

What causes earaches?

A tube called the eustachian (say: "you-stay-shun") tube connects the middle ear with the back of the nose. Normally this tube lets fluid drain out of the middle ear. If bacteria or viruses infect the lining of your child's eustachian tube, the tube gets swollen and fills with thick mucus. This keeps fluid in the ear from draining normally. Bacteria can grow in the fluid, increasing pressure behind the eardrum and causing pain.

The eustachian tubes can become blocked because of allergies, or a cold or other infection. In other cases, the adenoids (glands near the ear) become enlarged and block the eustachian tubes.

Acute ear infections usually clear up within 1 or 2 weeks. Sometimes, ear infections last longer and become chronic. After an infection, fluid may stay in the middle ear. This may lead to more infections and hearing loss.

What are the symptoms of ear infections?

The most common symptoms of an acute ear infection are ear pain and fever. If your child is too young to tell you what hurts, he or she may cry or pull at his or her ear. Your child may also be

irritable or listless, have trouble hearing, or not feel like eating or sleeping.

What is the treatment for ear infections?

The treatment for ear infections may include any of the following:

- If your doctor thinks the infection is caused by bacteria, he or she may prescribe an antibiotic. (Antibiotics don't work for infections caused by viruses.) It's very important to follow the directions for giving your child the medicine.
- Pain relievers like acetaminophen (brand names: Children's or Infants' Tylenol) and ibuprofen (brand names: Children's Advil or Children's Motrin) can help make your child feel better and reduce fever. Don't give your child aspirin unless your doctor says it's okay.
- A warm, not hot, heating pad held over the ear can also help relieve the earache.
- Ear drops to relieve pain are sometimes prescribed.

Why are earaches so common in children?

This may be because children's eustachian tubes are shorter and more narrow than those of adults. More than 3 out of 4 children will have at least 1 ear infection by their third birthday.

Children may be at higher risk for ear infections if they:

- Are around people who smoke.
- Have had previous ear infections.
- Have a family history of ear infections.
- Attend day care (because they are exposed to more germs and viruses).
- Were born prematurely or with a low birth weight.
- Have frequent colds or other infections.
- Take a bottle to bed.
- Use a pacifier.
- Are male (boys tend to get more ear infections than girls).
- Have nasal speech (caused by large adenoids that block the eustachian tube).
- Have allergies with nasal congestion.

What can be done to prevent ear infections from returning?

Some children seem to get many ear infections. If your child has had 3 ear infections in 6 months or 4 in 1 year, your doctor may suggest that your child take a low dose of antibiotic every day, usually during the winter, when these infections are most common.

Your doctor may want to see your child a few times when he or she is taking the antibiotic to make sure another ear infection does not happen.

Will earaches hurt my child's hearing?

Middle ear infections and fluid in the ear are the most common causes of temporary hearing loss in children. Children who have ongoing problems with hearing may have trouble developing their speech and language skills. For this reason, it is important to talk with your doctor if your child

has repeated ear infections.

What about fluid that stays in the middle ear?

Your child's hearing may be affected if fluid stays in the middle ear after an infection. This is called otitis media with effusion. (Effusion is another word for fluid buildup.) Usually the fluid goes away in 2 to 3 months, and hearing returns to normal. Your doctor may want to check your child again at this time to see if fluid is still present.

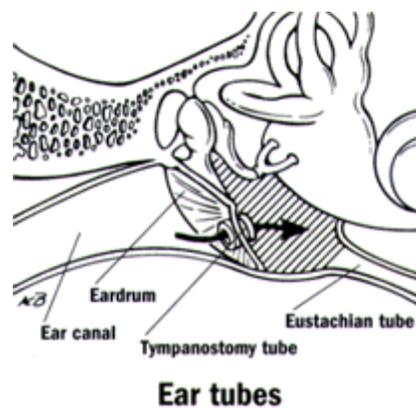
If the fluid stays for more than a few months, your doctor may want to check your child's hearing. Your doctor may recommend ear tubes (also called tympanostomy tubes) to drain the fluid if your child's hearing is decreased a lot. Ear tubes may also decrease the number of ear infections your child gets.

What are ear tubes?

Ear tubes are tiny plastic tubes that help balance the pressure in your child's ears. They allow air into the middle ear so that fluid can drain out down the eustachian tube. They're put into the eardrum (which is also called the tympanic membrane) during surgery and stay in place for an average of 6 to 9 months.

The tubes are usually left in place until they fall out on their own or your doctor decides your child no longer needs them. Sometimes, another set of tubes may be needed.

Placing tubes in the ears is an operation and has some risks. Your child will need general anesthesia when the tube is inserted. Your doctor will talk with you about the risks if he or she thinks your child needs tubes.



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This handout provides a general overview on this topic and may not apply to everyone. To find out if this handout applies to you and to get more information on this subject, talk to your family doctor.

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