

What Are Middle Ear Infections?

Ear infections happen when viruses or bacteria get into the middle ear, the space behind the eardrum. When a child has an ear infection (also called **otitis media**), the middle ear fills with pus (infected fluid). The pus pushes on the eardrum, which can be very painful.

What Are the Signs of an Ear Infection?

Ear pain is the main sign of a middle ear infection. Kids also might have a [fever](#) and trouble eating, drinking, or sleeping because chewing, sucking, and lying down can cause painful pressure changes in the middle ear.

Older kids can complain about ear pain, but a younger child might just tug at the ear or be fussy and cry more than usual.

If the pressure from the fluid buildup gets high enough, it can [rupture the eardrum](#), with fluid draining from the ear. This is a common cause of ruptured eardrums in children. A child with a ruptured eardrum might feel dizzy or nauseated, and have ringing or buzzing in the ear.

How Do Ear Infections Happen?

A middle ear infection usually happens because of swelling in one or both of the eustachian tubes (which connect the middle ear to the back of the throat). The tubes let mucus drain from the middle ear into the throat.

A [cold](#), [throat infection](#), [acid reflux](#), or [allergies](#) can make the eustachian tubes swell. This blocks the mucus from draining. Then, viruses or bacteria grow in the mucus and make pus, which builds up in the middle ear.

When doctors refer to an ear infection, they usually mean otitis media rather than [swimmer's ear](#) (or **otitis externa**). **Otitis media with effusion** is when noninfected fluid builds up in the ear. It might not cause symptoms, but in some kids, the fluid creates a sensation of ear fullness or "popping."

Why Do Kids Get Ear Infections?

Kids (especially in the first 2 to 4 years of life) get ear infections more than adults do for several reasons:

- Their shorter, more horizontal eustachian tubes let bacteria and viruses find their way into the middle ear more easily. The tubes are also narrower, so more likely to get blocked.
- Their [adenoids](#), gland-like structures at the back of the throat, are larger and can interfere with the opening of the eustachian tubes.

Other things that can put kids at risk include [secondhand smoke](#), bottle-feeding, and being around other kids in childcare. Ear infections are more common in boys than girls.

Ear infections are not contagious, but the colds that sometimes cause them can be. Infections are common during winter weather, when many people get upper respiratory tract infections or colds (a child with an ear infection also might have cold symptoms, like a runny or stuffy nose or a cough).

How Long Do Ear Infections Last?

Middle ear infections often go away on their own within 2 or 3 days, even without any specific treatment.

In some cases, an infection can last longer (with fluid in the middle ear for 6 weeks or longer), even after antibiotic treatment.

How Are Ear Infections Diagnosed?

Doctors will do a physical exam and examine the ear. They use an **otoscope**, a small instrument similar to a flashlight, to see the eardrum.

How Are Ear Infections Treated?

To treat an ear infection, health care providers consider many things, including:

- the type and severity of the ear infection
- how often the child has ear infections
- how long this infection has lasted
- the child's age and any risk factors
- whether the infection affects hearing

The type of otitis affects treatment options. Not all kinds need to be treated with antibiotics. Because most ear infections can clear on their own, many doctors take a "wait-and-see" approach. Kids will get medicine for pain relief without antibiotics for a few days to see if the infection gets better.

Antibiotics aren't routinely prescribed because they:

- won't help an infection caused by a virus
- won't get rid of middle ear fluid
- can cause side effects
- usually don't relieve pain in the first 24 hours and have only a minimal effect after that

Also, [overuse of antibiotics](#) can lead to antibiotic-resistant bacteria, which are much harder to treat.

If a doctor does prescribe antibiotics, a 10-day course is usually recommended. Kids age 6 and older who don't have a severe infection might take a shortened course for 5 to 7 days.

Some children, such as those with recurrent infections and those with lasting hearing loss or [speech delay](#), may need [ear tube surgery](#). An ear, nose, and throat doctor will surgically insert

tubes (called tympanostomy tubes) that let fluid drain from the middle ear. This helps equalize the pressure in the ear.

When Else Are Antibiotics Needed?

Antibiotics can be the right treatment for kids who get a lot of ear infections. Their doctors might prescribe daily antibiotics to help prevent future infections. And younger children or those with more severe illness may need antibiotics right from the start.

The "wait-and-see" approach also might not apply to children with other concerns, such as [cleft palate](#), genetic conditions such as [Down syndrome](#), or other illnesses such as immune system disorders.

How Can I Help My Child Feel Better?

With or without antibiotic treatment, you can help to ease discomfort by giving your child [acetaminophen](#) or [ibuprofen](#) for pain and fever as needed. Your doctor also may recommend using pain-relieving ear drops as long as the eardrum isn't ruptured.

Can Ear Infections Affect Hearing?

Fluid buildup in the middle ear also blocks sound, which can lead to temporary [hearing problems](#). Kids having a problem might:

- not respond to soft sounds
- need to turn up the TV or radio
- talk louder
- seem inattentive at school

In kids who have otitis media with effusion, the fluid behind the eardrum can block sound, so mild temporary hearing loss can happen, but might not be obvious.

A child whose eardrum has ruptured eardrum might have ringing or buzzing in the ear and not hear as well as usual.

Can Ear Infections Be Prevented?

Some lifestyle choices can help protect kids from ear infections:

- [Breastfeed](#) infants for at least 6 months to help to prevent the development of early episodes of ear infections. If a baby is bottle-fed, hold the baby at an angle instead of lying the child down with the bottle.
- Prevent exposure to secondhand smoke, which can increase the number and severity of ear infections.
- Parents and kids should [wash their hands](#) well and often. This is one of the most important ways to stop the spread of [germs](#) that can cause colds and, therefore, ear infections.
- Keep children's [immunizations](#) up to date because certain vaccines can help prevent ear infections.

When Should I Call the Doctor?

Very rarely, ear infections that don't go away or severe repeated middle ear infections can lead to complications. So kids with an earache or a sense of fullness in the ear, especially when combined with fever, should be seen by their doctors if they aren't getting better after a couple of days. Other things can cause earaches, such as [teething](#), a foreign object in the ear, or hard [earwax](#). Your doctor can find the cause of your child's discomfort and treat it.