



Ear Infections

Español: [Infecciones del oído \(/getsmart/antibiotic-use/URI/ear-infection-sp.html\)](/getsmart/antibiotic-use/URI/ear-infection-sp.html)

Overview of Ear Infections

There are three main kinds of ear infections, which are called acute otitis (oh-TIE-tus) media (AOM), otitis media with effusion (uh-FEW-zhun) (OME), and otitis externa (Swimmer's Ear). Sometimes ear infections can be painful and may even need antibiotics. Your healthcare provider will be able to determine what kind of ear infection you or your child has and if antibiotics would help.

Acute otitis media

The type of ear infection that is usually painful and may improve with antibiotic treatment is called acute otitis (oh-TIE-tus) media, or AOM. Symptoms of AOM include pain, redness of the eardrum, pus in the ear, and fever. Children may pull on the affected ear, and infants or toddlers may be irritable. Antibiotics are often prescribed to children for AOM, but are not always necessary.

Otitis media with effusion

Otitis media with effusion (uh-FEW-zhun), or OME, is a build up of fluid in the middle ear without signs and symptoms of acute infection (pain, redness of the eardrum, pus, and fever). OME is more common than AOM, and may be caused by viral upper respiratory infections, allergies, or exposure to irritants (such as cigarette smoke). The build up of fluid in the middle ear does not usually cause pain and almost always goes away on its own. OME will not usually benefit from antibiotic treatment.

Otitis externa (Swimmer's Ear)

Otitis externa, more commonly known as Swimmer's Ear, is an infection of the ear and/or outer ear canal. It can cause the ear to itch or become red and swollen so that touching of or pressure on the ear is very painful. There may also be pus that drains from the ear. Antibiotics are usually needed to treat otitis externa. For more information about symptoms, treatment, causes, and prevention of Swimmer's Ear, visit [CDC's Healthy Swimming website \(/healthyswimming/swimmers_ear.htm\)](/healthyswimming/swimmers_ear.htm).

Causes of Ear Infections

Acute otitis media (AOM)

AOM is often caused by bacteria, but can also be caused by viruses. The bacteria that usually cause AOM are *Streptococcus pneumoniae* (strep-toh-KOK-us KNEW-moh-NEE-ay), *Haemophilus influenzae* (he-MO-fill-us in-flu-EN-zay), and *Moraxella catarrhalis* (more-ax-EL-la ka-tar-HUL-iss). The viruses that most commonly cause AOM are respiratory syncytial (sin-SIH-shull) virus (RSV), rhinoviruses, influenza viruses, and adenoviruses.

Otitis media with effusion (OME)

The part of the ear that gets blocked by fluid is called the eustachian (you-STAY-shun) tube, which connects the inside of the ear to the back of the throat. Fluid may build up in the middle ear for several reasons. When you or your child has a cold, the middle ear can get filled with fluid just as the nose does - it just doesn't run out as easily from the middle ear. Sometimes the fluid becomes infected, leading to AOM. After an episode of AOM has been treated with antibiotics or has resolved on its own, fluid may remain in the middle ear and may take a month or longer to go away.

Signs and Symptoms of Ear Infections

Acute otitis media (AOM)

- Pulling at ears
- Excessive crying
- Fluid draining from ears
- Sleep disturbances
- Fever
- Headaches
- Problems with hearing
- Irritability
- Difficulty balancing

Otitis media with effusion (OME)

- Problems with hearing



See a Healthcare Provider if You or Your Child has:

- Temperature higher than 100.4° F
- Discharge of blood or pus from the ears
- Been diagnosed with an ear infection and symptoms do not improve, or worsen

Your healthcare provider can determine what kind of ear infection is present and if treatment is needed. If your child is younger than three months of age and has a fever, it's important to always call your healthcare provider right away.

Antibiotics are Needed When...

Acute otitis media (AOM)

- Your healthcare provider will consider several factors when determining if antibiotics are needed for you or your child: age, severity of illness, diagnostic certainty, and follow-up options. Your healthcare provider may decide to wait a couple of days before prescribing antibiotics since you or your child may get better without them.
- To learn more about how healthcare providers determine when to prescribe antibiotics for ear infections, visit websites of the [American Academy of Pediatrics](http://www.healthychildren.org/English/news/Pages/Middle-Ear-Infections.aspx) (<http://www.healthychildren.org/English/news/Pages/Middle-Ear-Infections.aspx>) , [the American Academy of Family Physicians](http://www.cdc.gov/Other/disclaimer.html) (<http://www.aafp.org/online/en/home/clinical/clinicalrecs/aom.html>) , and [the American Academy of Family Physicians](http://www.cdc.gov/Other/disclaimer.html) (<http://www.cdc.gov/Other/disclaimer.html>).

Antibiotics Might Not Help if...

When an ear infection is caused by a virus, antibiotic treatment will not help it get better. Ear infections will often get better on their own without antibiotic treatment. Your healthcare provider will determine what treatment is best for you or your child.

Each time you or your child takes an antibiotic, the bacteria that normally live in your body (on the skin, in the intestine, in the mouth and nose, etc.) are more likely to become resistant to antibiotics. Common antibiotics cannot kill infections caused by these resistant germs. [Learn more about antibiotic resistance \(../antibiotic-resistance-faqs.html\)](#).

If symptoms continue to last for more than one month for OME or 2 days for AOM, you should schedule a follow-up appointment with your healthcare provider.

How to Feel Better

Rest, over-the-counter medicines and other self-care methods may help you or your child feel better. For more information about symptomatic relief, visit the [Symptom Relief \(../symptom-relief.html\)](#) section of this website or talk to your healthcare provider or pharmacist. Remember, always use over-the-counter products as directed. Many over-the-counter products are not recommended for children younger than certain ages.

Preventing Ear Infections

- Avoid smoking or exposure to second hand smoke and do not expose children to second hand smoke
- Avoid exposure to air pollution
- Keep you and your child up to date with recommended immunizations
- Breastfeed your baby for 12 months or more if possible
- Bottle feed your baby in the upright position

Related Pages

- [Fluid in the Middle Ear Q&A \(../campaign-materials/print-materials/Factsheet-FluidMiddleEar.html\)](#)
- [Swimmer's Ear \(http://www.cdc.gov/healthyswimming/swimmers_ear.htm\)](http://www.cdc.gov/healthyswimming/swimmers_ear.htm)
- [Swimmer's Ear Prevention Tips \(http://www.cdc.gov/healthywater/swimming/rwi/illnesses/swimmers-ear-prevention-guidelines.html\)](http://www.cdc.gov/healthywater/swimming/rwi/illnesses/swimmers-ear-prevention-guidelines.html)
- [Hand Hygiene \(http://www.cdc.gov/handwashing/\)](http://www.cdc.gov/handwashing/)
- [Ounce of Prevention-Kids \(http://www.oopkids.com/clean_hands.html\)](http://www.oopkids.com/clean_hands.html)
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- [Immunization Information \(http://www.cdc.gov/vaccines/\)](http://www.cdc.gov/vaccines/)
- [Healthy Homes \(http://www.cdc.gov/healthyhomes\)](http://www.cdc.gov/healthyhomes)

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Page last reviewed: February 27, 2013

Page last updated: May 23, 2011

Content source: [National Center for Immunization and Respiratory Diseases, Division of Bacterial Diseases](#)

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