Acute Otitis Media

Ear infections are common in young children.

The terms that health care professionals use to describe children’s ear conditions can be confusing. There are 3 common terms. (1) Acute otitis media (AOM) is the term used for middle ear infections. (2) Otitis media with effusion occurs when there is fluid in the middle ear space that is not infected. This does not require antibiotics. (3) Otitis externa is an infection of the space outside of the eardrum and involves the ear canal. Sometimes, this condition is known as swimmer’s ear.

Acute otitis media is one of the most common illnesses evaluated by pediatricians. About 50% of all children will have at least 1 ear infection by the time they reach their second birthday. The most common age range in which children are likely to get AOM is 3 to 24 months.

Acute otitis media is often related to a current or recent upper viral respiratory tract infection, also known as a common cold. This is because the upper respiratory tract infection can lead to problems with the eustachian tube. The eustachian tube is a passage that connects and allows air to pass between the sinuses and the middle ear space. When a child has an upper respiratory tract infection caused by a virus, it is common for the eustachian tube to become plugged with fluid or mucus from the infection. When the eustachian tube does not work well, fluid can get trapped in the middle space of the ear and become infected. Other risk factors for AOM include tobacco smoke exposure, day care attendance, family history of AOM, and atopy (such as eczema, asthma, and seasonal allergies). Breastfeeding and the absence of tobacco exposure has been shown to be protective for the development of AOM.

Symptoms of AOM vary and can depend on the age and developmental status of the child. The most specific symptom is ear pain. This pain is usually sudden and severe. It often wakes up the infant or young child during sleep. However, symptoms alone cannot be used to diagnose AOM.

Your child’s physician can make the diagnosis of AOM only by using a device called an otoscope to look at the ear. They will need to be able to properly view the eardrum to see if an infection is present. In most cases of AOM, the shape of the eardrum will be abnormal. The medical term for this shape is that the eardrum is bulging, which describes how the infected fluid is pushing on the eardrum. Other ways to tell that your child has AOM is by seeing pus draining from the eardrum and from seeing the appearance of pus behind the eardrum.

If your child has AOM, they typically need an antibiotic medicine to treat the infection, especially if they are 2 years or younger. It is important that the correct antibiotic is chosen for your child’s ear infection. Your child should complete all of the prescribed antibiotic medicine. Your child’s symptoms, such as ear pain, will usually begin to improve in 2 to 3 days. Sometimes, your child’s physician may propose waiting to see if symptoms improve before starting to take the antibiotics.

It is very important that your child receives the right type of pain management such as over-the-counter medicines to help with their ear infection pain. Pediatricians should also make sure that your child can access a physician especially throughout the next few days after they have been diagnosed with an ear infection.

FOR MORE INFORMATION
Causes of earaches and ear infections: https://www.healthychildren.org/English/tips-tools/symptom-checker/Pages/symptomviewer.aspx?symptom=Earache

Authors: Caroline R. Paul, MD; Megan A Moreno, MD, MSEd, MPH
Author Affiliations: Department of Pediatrics, University of Wisconsin-Madison, Madison.
Conflict of Interest Disclosures: None reported.