

Ear Problems in Children

Two common ear conditions may affect children. **Acute otitis media (AOM)** is an infection that usually involves fever, pain, and evidence of **middle ear** (behind the eardrum) inflammation with **effusion** (fluid). **Otitis media with effusion (OME)** is fluid in the middle ear without signs of infection. The **eustachian tubes** drain fluid from the ears to the back of the throat. When these tubes are swollen or clogged, fluid can build up in the ear, causing these conditions. Risk factors for AOM or OME include exposure to cigarette smoke, allergies, respiratory infections, and drinking while lying on one's back. Avoiding these risks may help prevent these problems. The pneumococcal vaccine prevents one of the most common types of ear and respiratory infections.

DIAGNOSIS

The diagnosis of AOM or OME requires a physical examination by a health care professional who will look inside the ear to find fluid or inflammation. Making the diagnosis can be difficult because children's ear canals are small and are sometimes obstructed by wax.

TREATMENT

Pain: Treat pain with analgesic eardrops or an over-the-counter medication such as acetaminophen.

Otitis media with effusion: Routine use of antihistamines, decongestants, and antibiotics is not recommended. Children should have a hearing test if OME lasts longer than 3 months or when there are suspected hearing, language, or learning problems.

Acute otitis media: Antibiotics are given to children younger than 6 months because these children have immature immune systems and are less able to fight infections. Between ages 6 months and 2 years, children may be given antibiotics depending on age, certainty of diagnosis, and severity of the infection. Children with nonsevere illness and an uncertain diagnosis may be watched for 48 to 72 hours without antibiotics. Most children do well, but if they do not improve in 48 to 72 hours, they may be given antibiotics.

Tympanostomy tubes are inserted when OME lasts longer than 3 months, there is recurrent AOM (3 episodes over 6 months or 4 in 1 year), or there is significant hearing loss.

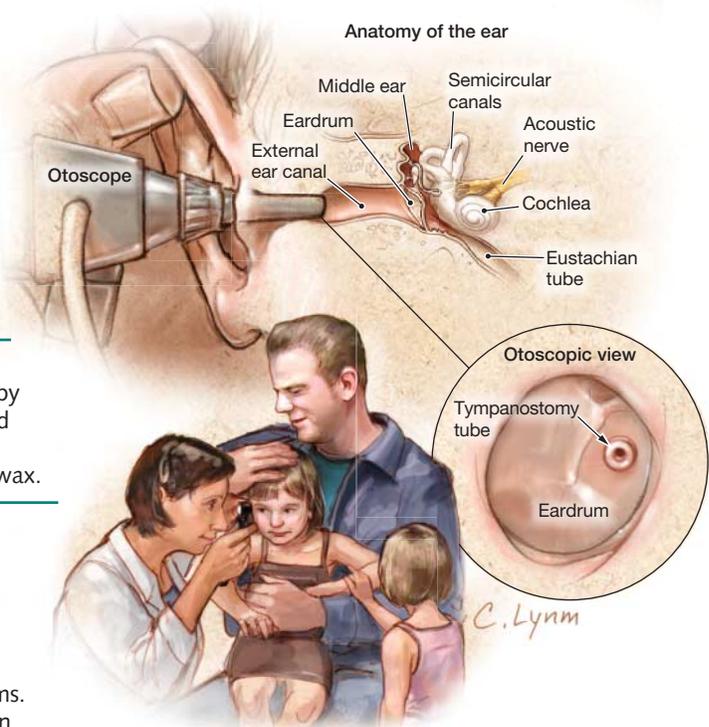
Fluid may remain in the middle ear even after an infection resolves. Fluid can also develop without any signs of infection. Children with OME may have no symptoms and do not usually look sick, and most episodes resolve on their own. Even if fluid is present for several months, most otherwise healthy children have no long-term hearing damage or problems with language development. Children with medical problems such as developmental disorders, memory or thinking problems, or speech or motor issues may need early treatment.

Sources: National Library of Medicine, American Academy of Otolaryngology–Head and Neck Surgery, American Academy of Pediatrics, Healthy Children, Agency for Healthcare Research and Quality
Smith N, Greinwald J. *Curr Opin Otolaryngol Head Neck Surg*. 2011;19(5):363-366.
Schraff SA. *Curr Opin Otolaryngol Head Neck Surg*. 2008;16(5):406-411.
Spector ND, Kelly SF. *Curr Opin Pediatr*. 2004;16 (6):706-722.

Denise M. Goodman, MD, MS, Writer

Cassio Lynn, MA, Illustrator

Edward H. Livingston, MD, Editor



FOR MORE INFORMATION

- National Library of Medicine
www.nlm.nih.gov
- American Academy of Otolaryngology–Head and Neck Surgery
www.entnet.org
- Healthy Children
www.healthychildren.org
- Agency for Healthcare Research and Quality
effectivehealthcare.ahrq.gov

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page index on JAMA's website at www.jama.com. Many are available in English and Spanish.

The JAMA Patient Page is a public service of JAMA. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, JAMA suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call 312/464-0776.

