



Earache and Otitis Media

What is Otitis Media

Otitis media is medical terminology for "inflammation of the middle ear" resulting from an infection. It can occur in one or both ears. Otitis media is the most frequent reason for children to visit physicians for illness.

Approximately one third of all children have more than three ear infections during the first three years of life. Otitis media is also the most common cause of reversible hearing loss in children. If such a hearing loss is chronic or frequently occurs it may impair the child's learning capacity and even delay his/her speech development. It can cause severe pain and the infection can spread to nearby structures in the head, especially the mastoid bone.

Despite its potential consequences, otitis media is easily cured if treated promptly and effectively. Thus, early recognition of the symptoms and prompt medical treatment is very important.

What is the Middle Ear?

The middle ear is a pea-sized, air-filled cavity behind the eardrum, which contains structures that must be able to vibrate freely to help produce hearing. Air enters the middle ear through the narrow eustachian tube, which passes from the back of the nose up into the ear. When we yawn or swallow, tiny air bubbles pass up the eustachian tube into the middle ear, which makes the air pressure inside the ear the same as outside the ear; this is the normal equalization of pressure.

What Causes Otitis Media?

It is caused by bacteria or viruses that probably enter from the nose or throat and travel up the eustachian tube to reach the middle ear. This occurs when the eustachian tube is not working properly, often because of inflammation from a cold, sinus or throat infection, allergy attack or environmental factors such as tobacco smoke. The infection in the middle ear causes earache, a red inflamed eardrum, and a build-up of fluid behind the eardrum. This fluid begins as a thin serum-like excretion of the cells that line the middle ear cavity. The character of the fluid may change with time. It may become thickened and mucoid (called "Glue-Ear"). It may even turn to pus and sometimes causes the eardrum to rupture to allow for its release out of the ear canal. More commonly, the fluid remains in the middle ear because it cannot drain out naturally through a swollen, inflamed, otherwise dysfunctional eustachian tube. This is called a middle ear effusion, serous otitis media, or otitis media with effusion which can become chronic (meaning it can last for weeks or months or even years) after the acute, painful part of the infection is over. This condition makes the child likely to have frequent recurrences of the acute infection and hearing loss.

What are the Symptoms of Otitis Media?

The most prominent symptom of acute otitis media is earache, associated with a feeling of pressure and blockage in the ear. Children who cannot describe an earache may simply tug or rub the affected ear and display irritability (cry for no apparent reason), or have an elevated temperature.

Hearing is usually muffled because the fluid in the middle ear prevents the normal vibration of the eardrum, which helps produce hearing. With proper treatment, this temporary hearing loss is usually fully restored with drainage of the fluid. Without proper treatment, chronic or permanent hearing loss could occur.

The Importance of Medications

The doctor may prescribe one or more medications for your child. One may be an antibiotic which fights the infection. Although the earache may go away rather quickly, the infection itself may need more time to completely clear up. So it is very important that your child takes the antibiotic for the full length of time it is prescribed and that you read the label on the prescription and follow all directions carefully. An antihistamine (especially if your child has allergies) or a decongestant or a combination of both may also be prescribed by your doctor. Acetaminophen-containing products such as Tylenol or generic brands may be recommended for relief of pain and to reduce fever. These products come in many forms including suppository, liquid, chewable tablets, and regular tablets so one of these forms will be right for your child. Contact your doctor if you have any questions about any of your child's medications or if the symptoms do not clear up.

Other Treatment Options

Otitis media usually clears up with proper medication and home treatment. In some cases, your doctor may recommend other forms of treatment. One is an operation called a myringotomy which involves a small surgical incision (opening) into the eardrum to promote drainage of fluid and to relieve pain. To prevent this surgical opening from healing over sooner than desired, a tiny, hollow tube, known as a ventilation tube or a PE (pressure-equalizing) tube, can be placed at the same time. This tube helps by equalizing air pressure and preventing accumulation of fluid in the middle ear and also improves the child's hearing.

The adenoids may also be surgically removed if they are felt to be chronically infected and the cause of recurrent otitis media infections. If a person needs a second set of pressure equalizing tubes, the adenoids will be evaluated for removal at that time. Related allergies also may require additional treatment.