



BASIC INFORMATION

DESCRIPTION

Infection in the middle ear. This is not contagious from person to person, but the preceding respiratory infection causing it may be contagious. Involved is the middle-ear space where nerves and small bones connect to the eardrum on one side and the eustachian tube on the other side. Most common in infants and children age 3 months to 3 years.

FREQUENT SIGNS AND SYMPTOMS

- Irritability.
- Earache.
- Feeling of fullness in the ear.
- Hearing loss.
- Fever.
- Dizziness.
- Discharge or leakage from the ear.
- Diarrhea, vomiting (sometimes).
- Pulling at the ear (small children).

CAUSES

- Viral or bacterial infection that spreads to the middle ear by way of the eustachian tube. These are usually upper-respiratory virus infections in the nose or throat.
- Sinus and eustachian-tube blockage caused by nasal allergies or enlarged adenoids.
- A ruptured eardrum.

RISK INCREASES WITH

- Recent illness, such as a respiratory infection, that has lowered resistance.
- Crowded or unsanitary living conditions.
- Genetic factors. Some American Indians, especially the Navajo, seem more susceptible.
- Cold climate.
- Change in altitude, such as flying or driving up mountains.
- Family history of ear infections.
- Day care.
- Smoking in household.

PREVENTIVE MEASURES

- Bottle-feed or breast-feed infants in a sitting position with head up, never lying down.
- Breast-feeding decreases chances of child having ear infections.
- No smoking in household.
- Wash bed linens, towels and heating pads regularly to prevent reinfection.

EXPECTED OUTCOMES

Usually curable with treatment.

POSSIBLE COMPLICATIONS

- May recur.
- Chronic otitis media (pus comes from perforation in eardrum).

- Hearing impairment usually temporary, but sometimes permanent leading to delay of normal language development in children.
- Enlarged adenoids in children from repeated middle-ear infections, causing chronic middle-ear infections.
- Mastoiditis (infection of the mastoid [bony area just behind the ear]; rare).
- Meningitis (rare).



TREATMENT

GENERAL MEASURES

- Diagnosis is usually made by examination of the ear. Fluid from the ear may be cultured.
- Treatment usually involves medication and supportive care to relieve pain.
- Apply heat to the area around the ears to relieve pain.
- Swimming should be avoided until infection clears.
- Surgery to insert plastic tubes through the eardrum to drain pus or fluid from the middle ear (rare); or surgery to remove the adenoids.
- If the eardrum is bulging, a small cut, or myringotomy, may be made in it to relieve pressure and pain.

MEDICATIONS

- Use ear drops to relieve pain. You may use non-prescription drops or those prescribed for a previous infection. They will not cure the infection.
- Use non-prescription drugs, such as acetaminophen, to reduce pain and fever.
- Antibiotics may be prescribed, if the infection appears to be bacterial rather than viral. Finish the medication. The infection may remain active for several days after symptoms disappear.

ACTIVITY

Rest in bed or reduce activity until fever and pain subside.

DIET

No special diet.



NOTIFY OUR OFFICE IF

- You or your child has symptoms of a middle-ear infection.
- The following occur during treatment:
 - Fever.
 - Severe headache.
 - Earache that persists longer than 2 days, despite treatment.
 - Swelling around the ear.
 - Convulsions.
 - Twitching of the face muscles.
 - Dizziness.