CONDITION

Otitis

Otitis is inflammation of the outer, middle, or inner part of the ear.

WHAT IT IS
Inflammation of the outer, middle, or inner ear

BODY SYSTEM
Ears and hearing

MAIN SYMPTOMS
Ear pain, discharge, reduced hearing, dizziness

WHAT CAUSES IT
Infection, irritation, allergy, or pressure problems

HOW IT IS DIAGNOSED
Ear examination, hearing tests, or tympanometry

MAIN TREATMENT
Pain relief, observation, ear drops, or antibiotics

CAN IT BE CURED?
Sometimes - acute episodes often fully resolve

IS IT AN EMERGENCY?
Sometimes - swelling behind ear or new neurological symptoms

LONG-TERM OUTLOOK
Most acute episodes resolve; chronic forms need follow-up

Overview

Otitis means inflammation of the ear. It is a broad term rather than one specific diagnosis. The symptoms, causes, and treatment differ according to which part of the ear is affected.

The main types are:

Otitis media is especially common in children because their eustachian tubes-the passages connecting the middle ear to the back of the nose-are smaller and more horizontal than those of adults. These tubes can become blocked during a cold, allowing pressure and fluid to build behind the eardrum.

Otitis externa is more likely after water, scratching, or skin irritation damages the ear canal. Inner ear inflammation is less common and usually causes vertigo, meaning a spinning sensation, rather than ear pain.

Many acute episodes improve without lasting problems. However, severe, repeated, or long-lasting inflammation may affect hearing or spread to nearby tissues. The type of otitis therefore needs to be identified before treatment is chosen.

- Otitis externa: inflammation of the ear canal, often called swimmer's ear
- Otitis media: inflammation behind the eardrum, within the middle ear
- Otitis media with effusion: fluid behind the eardrum without signs of an acute infection, sometimes called glue ear
- Inner ear inflammation: usually called labyrinthitis when it affects the balance and hearing structures

Symptoms

Symptoms depend on which part of the ear is inflamed.

Otitis externa commonly causes pain, itching, redness, and swelling inside the ear canal. Moving the outer ear or pressing the small flap in front of the canal may hurt. There may be watery, cloudy, or pus-like discharge. Swelling or debris can make hearing seem muffled.

Acute otitis media often follows a cold. It can cause ear pain, fever, reduced hearing, irritability, or a feeling of pressure in the ear. Babies may feed poorly, cry more than usual, or have trouble sleeping. Pulling at an ear by itself does not confirm an infection.

If pressure causes the eardrum to tear, fluid may drain from the ear. Pain can improve after this happens, but the ear still needs assessment.

Otitis media with effusion usually causes reduced or fluctuating hearing rather than strong pain or fever. A child may turn up the television, speak more loudly, appear distracted, or have difficulty hearing in a noisy room.

Inflammation of the inner ear may cause:

Sudden hearing loss should not be assumed to be ordinary ear blockage or otitis. It needs urgent medical assessment.

- A spinning sensation or vertigo
- Unsteadiness
- Nausea or vomiting
- Hearing loss or ringing in one ear

Causes and risk factors

Otitis externa often develops when the protective skin lining the ear canal is damaged. Water that remains in the canal can soften this skin and allow bacteria to grow. Fungal infection is less common.

Scratching the canal with cotton swabs, fingernails, or other objects can also damage it. Earbuds, hearing aids, eczema, psoriasis, and reactions to hair or skin products may contribute.

Acute otitis media often starts when a viral respiratory infection causes swelling around the eustachian tube. Fluid becomes trapped behind the eardrum and may become infected by viruses, bacteria, or both.

Children have a higher chance of middle ear inflammation when they are exposed to tobacco smoke or spend time around many other children, where respiratory infections spread more easily. Craniofacial conditions such as cleft palate can interfere with eustachian tube function.

Fluid may remain behind the eardrum for weeks after an acute middle ear infection has settled. It can also develop without a clear infection, particularly when nasal congestion or enlarged adenoids block normal drainage.

Labyrinthitis often follows a viral infection. Less commonly, inner ear inflammation is linked to bacterial infection or spread from nearby structures.

Diabetes or a weakened immune system can make an external ear infection more difficult to control. Severe, deep infection of the ear canal and nearby bone is uncommon but needs prompt specialist care.

Diagnosis

A healthcare professional will ask about the symptoms, how long they have been present, and whether there has been swimming, a recent cold, ear discharge, hearing change, or previous ear surgery.

They usually examine the ear with an otoscope, a lighted instrument that allows them to see the canal and eardrum. Otitis externa may cause a swollen, tender canal containing debris. Acute otitis media can make the eardrum bulge and reduce its normal movement.

Tympanometry may be used to check how the eardrum moves in response to changes in air pressure. It can help detect middle ear fluid. A hearing test may be appropriate when fluid lasts, infections keep returning, or hearing difficulties affect communication.

A sample of ear discharge is not needed for every episode. It may be tested when treatment has not worked, the infection is severe, or an unusual organism is suspected.

Vertigo and sudden hearing changes may require hearing tests, balance assessment, or other investigations. These symptoms can have causes outside the ear, so the examination may include the eyes, nerves, movement, and coordination.

Treatment and management

Treatment is based on the location and likely cause of the inflammation. Antibiotics like amoxicillin or doxycycline are not helpful for every type of otitis.

Pain can often be managed with paracetamol or ibuprofen when these medicines are suitable for the person taking them. Follow the product label and avoid giving aspirin to children or teenagers unless specifically advised by a clinician.

Some uncomplicated middle ear infections improve with pain relief and observation. Whether antibiotics are appropriate is influenced by age, examination findings, symptom severity, discharge, and whether one or both ears are affected. A clinician may recommend immediate treatment or a delayed prescription.

Otitis externa is usually treated with ear drops containing an antimicrobial medicine, sometimes combined with a medicine that reduces inflammation. The canal may need gentle cleaning by a trained professional. If it is very swollen, a small wick may be placed to help drops reach the affected area.

Do not put leftover drops, oils, alcohol mixtures, or other liquids into an ear when the eardrum may be torn or when ventilation tubes are present. Some products are not safe for the middle ear.

Middle ear fluid without acute infection usually does not need antibiotics. Hearing and communication may be monitored while the fluid clears. Persistent fluid that causes meaningful hearing difficulties may lead to an audiology or ear, nose, and throat assessment. Some people benefit from ventilation tubes, also called grommets.

Inner ear inflammation is treated according to its cause and effects. Short-term medicine may sometimes be used for severe nausea or vertigo. Staying active as safely as possible and balance rehabilitation can help when unsteadiness continues.

Repeated infections, a persistent eardrum hole, chronic discharge, or suspected cholesteatoma may require specialist treatment or surgery. A cholesteatoma is an abnormal collection of skin cells behind the eardrum that can damage nearby structures.

Complications

Most acute episodes settle without permanent harm. Possible complications depend on the type and duration of inflammation.

Temporary reduced hearing is common when the canal is swollen or fluid sits behind the eardrum. Long-lasting hearing difficulty can affect speech, learning, work, or social interaction. Children with persistent fluid may need hearing and language assessment.

A middle ear infection can occasionally cause an eardrum perforation. Many small perforations heal, but some remain open and cause repeated discharge or hearing loss.

Infection can rarely spread to the mastoid bone behind the ear. Mastoiditis may cause pain, redness, or swelling behind the ear and can push the outer ear forward.

Severe otitis externa can spread into deeper tissues, particularly in someone with diabetes or a weakened immune system. Increasing pain that seems greater than the visible findings needs urgent assessment.

Inner ear inflammation can leave ongoing balance problems, ringing in the ear, or hearing loss. Other conditions can produce similar symptoms, which is why sudden or one-sided changes should be assessed promptly.

Prevention

Not every episode of otitis can be prevented. Young children may develop middle ear inflammation because of their anatomy and frequent respiratory infections.

Routine vaccination helps prevent some infections that can lead to middle ear problems. Reducing exposure to tobacco smoke and limiting the spread of colds through handwashing may also lower risk.

To reduce irritation and otitis externa:

Preventive ear drops are not suitable for everyone, especially if there may be a perforated eardrum, ear tubes, discharge, or previous ear surgery. Ask a healthcare professional before using them.

- Let water drain from the ears after swimming or bathing
- Dry only the outside of the ear with a towel
- Do not insert cotton swabs or other objects into the canal
- Clean hearing aids and earbuds as directed
- Address eczema or other ear canal skin problems

Living with it and what to expect

Acute otitis externa and uncomplicated middle ear infections often improve over days, although blocked hearing may take longer to settle. Middle ear fluid can remain after pain and fever have gone because the eustachian tube needs time to begin draining normally again.

During recovery, avoid swimming if there is discharge or active otitis externa. Keep the ear dry if advised. Flying or major pressure changes may be uncomfortable while the middle ear is blocked.

Repeated episodes may lead to hearing checks or specialist review. Keeping a brief record of infections, discharge, treatment, and hearing concerns can help show whether there is a pattern.

Children with persistent middle ear fluid may seem inattentive because they cannot hear clearly. Speaking face-to-face, reducing background noise, and informing their school or childcare setting can help while hearing is being monitored.

Chronic otitis does not always cause constant symptoms. Some people have periods of discharge or reduced hearing separated by quieter periods. Regular follow-up is important when there is a persistent perforation, ventilation tube, cholesteatoma, or previous ear surgery.

Long-term effects are not inevitable. Many people recover fully, while those with continuing hearing or balance problems may benefit from hearing devices, balance therapy, or specialist procedures.

When to get medical help

Arrange routine medical assessment for ear pain that is not improving, recurring infections, ongoing discharge, or hearing changes that continue after an acute episode. Children whose hearing appears to affect speech, learning, or behaviour should also be assessed.

Seek urgent, same-day help for:

Call emergency services for confusion, extreme drowsiness, a seizure, a stiff neck with severe illness, or stroke-like symptoms such as one-sided weakness, trouble speaking, or a sudden severe loss of coordination.

- Sudden hearing loss in one or both ears
- Severe or rapidly worsening ear pain

- Redness, tenderness, or swelling behind the ear
- An outer ear that is being pushed forward
- Ear discharge with significant fever or illness
- Severe external ear pain in someone with diabetes or reduced immunity
- A baby younger than 3 months with a temperature of 38°C or higher
- New facial weakness, severe vertigo, or difficulty walking

Common questions

Is otitis the same as an ear infection?

Not exactly. Otitis means inflammation. Infection is a common cause, but irritation, allergy, trapped fluid, and pressure problems can also inflame the ear. The word after "otitis," such as externa or media, identifies the affected area.

Can otitis clear without antibiotics?

Yes. Many middle ear infections improve without antibiotics, and antibiotics do not clear non-infected middle ear fluid. Otitis externa usually needs topical treatment, while inner ear inflammation requires an assessment of its cause.

Why does my ear still feel blocked after the pain is gone?

Fluid may remain behind the eardrum after inflammation settles. This can cause muffled or popping hearing for a time. Persistent, one-sided, or worsening hearing loss should be assessed.

Can I swim with otitis?

Swimming is usually avoided during active otitis externa or while an ear is draining. Water entering an inflamed canal can delay healing. Advice may differ for people with ear tubes, perforations, or previous surgery.

Is otitis contagious?

Otitis itself is not usually passed from person to person. However, the cold or other respiratory infection that led to middle ear inflammation may be contagious.

Can flying make otitis worse?

Changes in cabin pressure can increase pain when the eustachian tube is blocked or fluid is trapped behind the eardrum. If there is severe pain, a recent procedure, or an active infection, ask a healthcare professional about the timing of travel.

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