CONDITION

Aural polyps

Learn what an aural polyp is, why chronic ear disease may cause one, how it is assessed, and which symptoms need prompt medical care.

WHAT IT IS
Soft inflamed growth in the ear canal

BODY SYSTEM
Ears and hearing

MAIN SYMPTOMS
Ear drainage, reduced hearing, blockage, bleeding

WHAT CAUSES IT
Chronic inflammation or infection

HOW IT IS DIAGNOSED
Otoscope or microscope examination

MAIN TREATMENT
Treating the underlying inflammation or infection

CAN IT BE CURED?
Sometimes - resolves when underlying cause treated

IS IT AN EMERGENCY?
Sometimes - confusion or new neurological symptoms

LONG-TERM OUTLOOK
Usually treatable, with possible lasting hearing loss

Overview

An aural polyp is a soft growth found in the ear canal. It is usually made of inflamed tissue called granulation tissue. Granulation tissue forms as the body responds to ongoing irritation, infection, injury, or moisture.

An aural polyp is a physical finding rather than a diagnosis by itself. The important question is what caused it. Many develop because of long-lasting inflammation in the ear canal or middle ear. The middle ear is the air-filled space behind the eardrum.

Some polyps grow through a hole in the eardrum from the middle ear into the ear canal. Others begin in the canal itself. In children, irritation around an ear ventilation tube, also called a tympanostomy tube or grommet, may cause granulation tissue.

A polyp can block the canal, interfere with hearing, bleed when touched, and make it difficult to see the eardrum. It may also hide an underlying condition. One important possible cause is a cholesteatoma. This is an abnormal collection of skin cells inside the middle ear or nearby mastoid bone. A cholesteatoma is not cancer, but it can gradually damage bone and other structures.

Most causes are treatable. However, a persistent or unexplained aural polyp should be assessed by a clinician, often an ear, nose, and throat specialist, known as an ENT or otolaryngologist.

Symptoms

An aural polyp may be noticed during an ear examination, or it may cause symptoms related to inflammation and blockage.

Possible symptoms include:

The amount of pain varies. Chronic middle-ear infection and cholesteatoma may cause persistent drainage with relatively little pain. By contrast, a severely inflamed ear canal can be quite painful, especially when the outer ear is moved.

Symptoms cannot show whether a growth is simple granulation tissue, a cholesteatoma, or another type of lesion. Do not try to pull out or scrape a suspected polyp. It may bleed, and home removal could injure the ear canal or eardrum.

Arrange a prompt medical assessment for a growth in the ear, persistent discharge, repeated bleeding, or worsening hearing. Seek urgent care for sudden hearing loss, severe or rapidly increasing pain, marked dizziness, swelling or redness behind the ear, facial weakness, high fever, or severe headache. Confusion, new neurological symptoms, or serious illness requires emergency care.

People with diabetes or a weakened immune system should seek prompt care for severe ear pain or continuing discharge. These features can sometimes occur with a deeper infection of the ear canal and surrounding bone.

- Ongoing or repeated drainage from the ear
- Drainage that is watery, thick, unpleasant-smelling, or blood-stained
- Reduced or muffled hearing in the affected ear
- A feeling of fullness or blockage
- Ear discomfort, itching, or pain

- Bleeding after touching or cleaning the ear
- A visible red or pink mass in the ear canal
- Ringing or other noises in the ear, called tinnitus

Causes and risk factors

Long-standing middle-ear infection is a common setting for an aural polyp. If the eardrum has a hole, inflamed tissue from the middle ear may extend into the ear canal. Repeated moisture and drainage can keep the tissue irritated.

Cholesteatoma is another important cause to rule out. It may develop when skin becomes trapped behind the eardrum, sometimes after repeated infections or problems with pressure in the middle ear. Drainage, hearing loss, and granulation tissue can occur when it becomes inflamed or infected.

A polyp may also arise from the skin of the ear canal. Possible triggers include chronic otitis externa, meaning inflammation of the outer ear canal; repeated scratching or cleaning; a retained foreign object; and irritation from a hearing aid or earbud. Skin conditions such as eczema can make the canal more vulnerable to inflammation.

In children, granulation tissue may form around a ventilation tube. This can happen if the tube becomes blocked, infected, or chronically irritated.

Less common causes include benign growths, certain bone conditions, tuberculosis or other unusual infections, and tumors of the ear canal or middle ear. Cancer is an uncommon cause, but a lesion that persists, bleeds easily, looks unusual, or does not improve with appropriate treatment may need a tissue sample.

Factors that can increase the chance of chronic ear inflammation include:

Having one or more risk factors does not establish the cause. Direct examination is needed.

- Repeated ear infections
- A long-standing hole in the eardrum
- Previous ear surgery or ventilation tubes
- Frequent water exposure
- Putting cotton swabs or other objects into the ear
- Ear canal skin disease
- Diabetes or reduced immune function

Diagnosis

Assessment begins with questions about drainage, pain, hearing changes, prior ear infections, ear surgery, ventilation tubes, water exposure, and any objects placed in the ear. The clinician may also ask about diabetes, immune problems, and medicines.

The ear is examined with an otoscope or microscope. Magnification helps the clinician identify where the polyp starts, assess the surrounding canal, and look for a hole in the eardrum. Discharge may need to be removed gently with suction so that deeper structures can be seen. This cleaning is sometimes called aural toilet.

A hearing test, or audiogram, may be recommended. It can show whether hearing loss is mainly conductive, meaning sound is being blocked from reaching the inner ear, or whether the inner ear or hearing nerve may also be affected.

A sample of drainage may be sent for laboratory testing when infection is persistent, severe, unusual, or not responding as expected. A culture can identify bacteria or fungi, but results must be interpreted with the examination because ear drainage can contain several organisms.

Imaging is not necessary for every polyp. A computed tomography, or CT, scan of the temporal bones may be used when a clinician suspects cholesteatoma, bone damage, deep infection, complications, or an unclear mass. CT gives detailed images of bone. Magnetic resonance imaging, or MRI, can provide more information about soft tissues and may help identify a cholesteatoma or complications in selected cases.

A persistent or suspicious polyp may require a biopsy, which means removing a small tissue sample for examination under a microscope. This is usually planned by an ENT specialist. A surface biopsy alone may not identify disease lying deeper in the middle ear, so the result must be considered together with the examination and imaging.

Treatment and management

Treatment depends on the source of the polyp. The goals are to control inflammation or infection, restore a clear ear canal, protect hearing, and treat any disease behind the growth.

A clinician may carefully remove discharge and loose debris using suction or small instruments under direct view. Repeated professional cleaning may be needed. Trying to clean deep inside the ear at home can push material farther in or damage inflamed tissue.

Prescription ear drops are often used when bacterial infection and inflammation are present. Some drops combine an antibiotic like amoxicillin or doxycycline with a corticosteroid like prednisone or hydrocortisone , which reduces swelling and granulation tissue. The choice of

drop matters when the eardrum may have a hole or a ventilation tube is present. Some medicines can harm the inner ear if they pass through an open eardrum, so drops should be selected by a healthcare professional.

Antibiotic tablets or intravenous antibiotics are not routinely needed for a localized ear-canal or draining middle-ear problem. They may be used when infection has spread beyond the ear, the person is systemically unwell, or another medical factor changes the treatment plan.

During treatment, the ear is commonly kept dry. A clinician can explain how to protect it while bathing. Swimming may need to be paused until the inflammation and drainage have settled. Cotton swabs, ear candles, and non-prescribed liquids should not be placed in the ear.

If a foreign object, ventilation tube, hearing aid, or another source of irritation is contributing, it may need to be removed or adjusted by a clinician. An underlying skin disorder may need separate treatment.

A polyp caused by chronic middle-ear disease may shrink when infection and inflammation are treated. However, medication cannot remove a cholesteatoma. Surgery is usually required to clear a cholesteatoma and create a safe, dry ear. Procedures may include repair of the eardrum, called tympanoplasty, and removal of disease from the mastoid bone behind the ear, called mastoid surgery.

A persistent lesion may be removed or biopsied. If testing identifies a specific tumor or unusual infection, treatment is directed at that cause by the appropriate specialist.

Complications

The polyp itself can block the ear canal, bleed, and contribute to temporary conductive hearing loss. More serious problems usually result from the underlying ear disease rather than from the polyp alone.

Chronic infection can damage the eardrum and the tiny middle-ear bones that carry sound. This may lead to lasting hearing loss. Long-term drainage can also affect quality of life and make hearing aids difficult to use.

A cholesteatoma can gradually erode nearby bone. Possible complications include injury to the hearing bones, dizziness from inner-ear involvement, facial nerve weakness, and infection of the mastoid bone. Rarely, infection can spread into tissues around the brain.

These complications are not expected in every person with an aural polyp. Timely assessment and follow-up help identify the underlying problem before major damage occurs.

Follow up

Follow-up is important even if drainage or pain improves. The clinician needs to confirm that the polyp has shrunk or resolved and that the eardrum and deeper ear can be examined. A polyp that remains after appropriate treatment may need imaging, biopsy, or surgical assessment.

Routine follow-up may include repeat ear examinations, professional cleaning, and hearing tests. People treated for cholesteatoma may need long-term ENT monitoring because disease can remain or return after surgery.

Contact the treating clinician sooner if discharge, bleeding, pain, or hearing loss worsens or returns. Seek urgent assessment for sudden hearing loss, new facial weakness, severe dizziness, swelling behind the ear, severe headache, fever with worsening ear symptoms, or rapidly increasing pain. Emergency care is appropriate for confusion, fainting, new weakness, or other serious neurological symptoms.

Sources

- National Institute for Health and Care Excellence. Hearing loss in adults: assessment and management . NICE guideline NG98. Published 2018; updated 2023.
- Rosenfeld RM, Schwartz SR, Cannon CR, et al. Clinical practice guideline: acute otitis externa. Otolaryngology-Head and Neck Surgery . 2014;150(1 Supplement):S1-S24.
- MSD Manual Professional Edition. Chronic Suppurative Otitis Media . Reviewed and revised January 2024.
- American College of Radiology. ACR Appropriateness Criteria: Inflammatory Ear Disease . Journal of the American College of Radiology.
- Linder TE, Shah S, Martha AS, Röösli C, Emmett SD. Introducing the "ChOLE" classification and its comparison to the EAONO/JOS consensus classification for cholesteatoma staging. Otology & Neurotology . 2019;40(1):63-72.
- Kuo CL, Shiao AS, Yung M, et al. Updates and knowledge gaps in cholesteatoma research. BioMed Research International . 2015;2015:854024.