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Patient education: External otitis (including swimmer's ear) (Beyond the Basics)

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OVERVIEW

External otitis is a condition that occurs when the ear canal becomes irritated. The ear canal is the part of the ear that leads from the outer ear to the ear drum ([figure 1](#)). External otitis can develop as a result of an infection, allergy, or skin problem. "Swimmer's ear" is the name for external otitis that occurs in a person who swims frequently.

External otitis is different from otitis media (middle ear infections). When a person says that they have an ear infection, they usually mean that they have otitis media. (See ["Patient education: Ear infections \(otitis media\) in children \(Beyond the Basics\)"](#).)

This article will discuss external otitis that is caused by an infection, as well as ways to prevent future episodes of external otitis. More detailed information is available by subscription. (See ["External otitis: Pathogenesis, clinical features, and diagnosis"](#).)

EXTERNAL OTITIS RISK FACTORS

Several factors can increase your risk of developing external otitis.

- Cleaning the ear canal removes ear wax. Ear wax serves to protect the ears from water, bacteria, and injury. Excessive cleaning or scratching can injure the skin, potentially leading to infection.
- Swimming on a regular basis removes some of the ear wax, allowing water to soften the skin. Bacteria, which normally live in the ear canal, can then enter the skin more easily.
- Wearing devices that block the ear canals, such as hearing aids, headphones, or ear plugs, can increase the risk of external otitis (if worn frequently) by injuring the skin.

EXTERNAL OTITIS SYMPTOMS

The most common symptoms of external otitis include:

- Pain in the outer ear, especially when the ear is pulled or moved
- Itchiness of the ear
- Fluid or pus leaking from the ear
- Difficulty hearing clearly

EXTERNAL OTITIS DIAGNOSIS

If you think that you or your child could have external otitis, you should see a health care provider. Your provider will examine the outside and inside of your ear to confirm the diagnosis.

EXTERNAL OTITIS TREATMENT

Treatment of external otitis aims to reduce pain and eliminate the infection. Most people with external otitis can be treated at home. If your infection is severe or your eardrum is ruptured, you will be referred to an ear, nose, and throat specialist (an otolaryngologist) for an examination and treatment.

In some cases, your health care provider will flush out your ear with water and [hydrogen peroxide](#) before you begin treatment; this speeds healing by removing dead skin cells and excess ear wax.

Ear drops — Ear drops are usually prescribed to reduce pain and swelling caused by external otitis. It is important to apply the ear drops correctly so that they reach the ear canal:

- Lie on your side or tilt your head towards the opposite shoulder.
- Place the ear drops in the ear canal.
- Lie on your side for 20 minutes or place a cotton ball in the ear canal for 20 minutes.
- Finish the entire course of treatment, even if you begin to feel better within a few days.

You should begin to feel better within 36 to 48 hours of starting treatment. If your pain worsens or does not improve within this time period, call your health care provider.

Pain medication — If you have bothersome ear pain, you can take a non-prescription pain medication.

Avoid getting ears wet — During treatment, you should avoid getting the inside of your ears wet. While showering, you can place a cotton ball coated with petroleum jelly in the ear. However, you should not swim for 7 to 10 days after starting treatment. Avoid wearing hearing aids and in-ear headphones until pain improves.

EXTERNAL OTITIS PREVENTION

The old saying, "Don't put anything smaller than your elbow in your ear" to clean the ear is true. The ear is self-cleaning; fingers, towels, cotton-tipped applicators, and other devices should not be used to clean the inside of the ears.

If you feel that you need to clean excessive wax from your ears, talk to your health care provider first. They may want to examine your ears to see if the ear wax is excessive. It is normal to have some ear wax (also called cerumen). If you have an excessive amount of ear wax, talk to your health care provider about safe ways to clean your ears. (See "[Cerumen](#)".)

If you swim frequently, experts recommend the following tips to reduce the chance of developing external otitis.

- Shake your ears dry after swimming.
- Blow dry your ears on a low setting, holding the dryer 12 inches away.
- Use ear drops after swimming to prevent ear infections; these are available at most pharmacies without a prescription.
- Consider wearing ear plugs made for swimming.

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our website (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

[Patient education: Outer ear infection \(The Basics\)](#)

[Patient education: Age-related hearing loss \(presbycusis\) \(The Basics\)](#)

[Patient education: Ear wax impaction \(The Basics\)](#)

[Patient education: Removing objects stuck in the ear \(The Basics\)](#)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

[Patient education: Ear infections \(otitis media\) in children \(Beyond the Basics\)](#)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

[Cerumen](#)

[External otitis: Pathogenesis, clinical features, and diagnosis](#)

[Malignant \(necrotizing\) external otitis](#)

The following organizations also provide reliable health information.

- [National Library of Medicine](#) (available in Spanish)
- [Center for Disease Control and Prevention](#)

- [KidsHealth](#)

[1,2]

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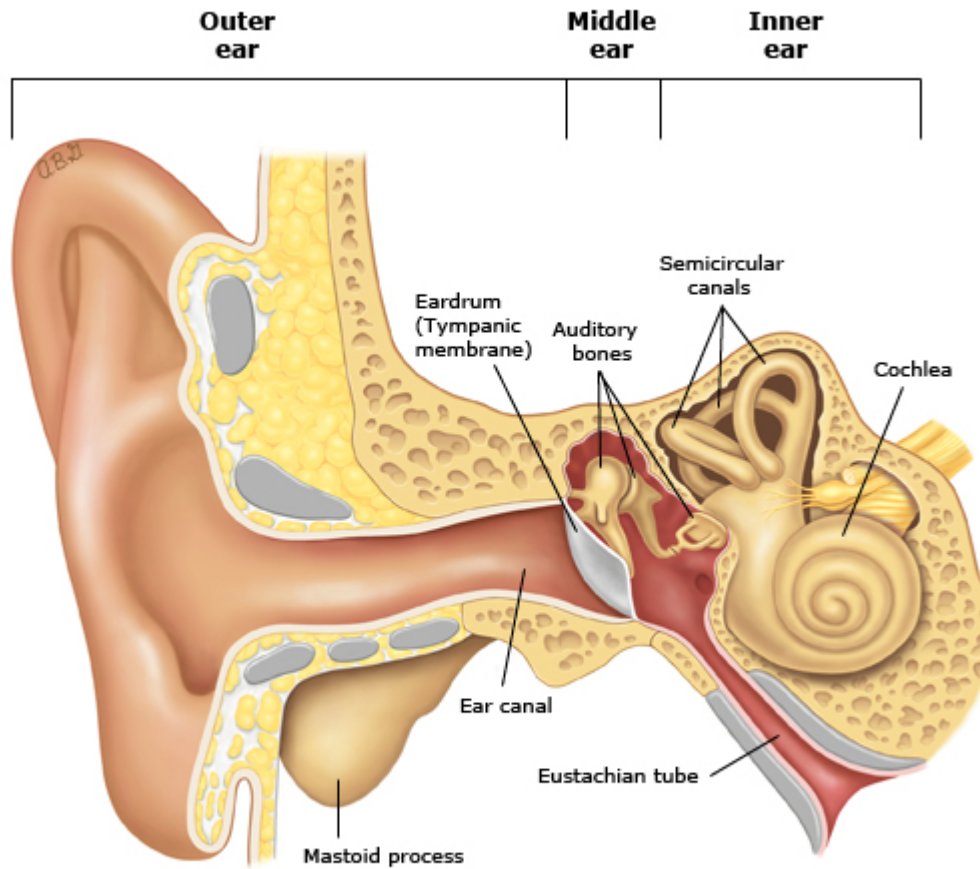
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GRAPHICS

Normal ear



This figure shows the normal parts of the outer, middle, and inner ear.

Graphic 55121 Version 5.0

Contributor Disclosures

Laura A Goguen, MD Nothing to disclose **Daniel G Deschler, MD, FACS** Nothing to disclose **Lisa Kunins, MD** Nothing to disclose

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