

Patient information from BMJ

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Outer ear infection

An outer ear infection is a type of ear infection that can cause pain and trouble hearing.

Simple infections can usually be treated with antibacterial ear drops. But if you have other medical conditions, or your infection is severe or caused by a fungus, your doctor will suggest other treatments to help.

What is an outer ear infection?

An outer ear infection is an infection of the "outer" part of your ear canal (this is the tube from your ear to your eardrum). These infections are more likely to happen in children and young adults.

When you have an outer ear infection, the skin of your ear canal becomes inflamed and swollen. Doctors call this **acute otitis externa**.

Most outer ear infections are caused by bacteria. But inflammation can also be caused by your ear canal getting wet (for example, from swimming) or damaged (for example, from putting a cotton swab inside your ear).

It's alsomore common if you have eczema or other skin problems affecting your ear.

Most people get a short-lasting (**acute**) infection. The symptoms come on quickly and usually get better quickly after treatment. But in some people, outer ear infections can be long-lasting (**chronic**) and more difficult to treat.

Outer ear infections may be caused by a **fungus**, instead of bacteria. This is more likely if you:

- are diabetic
- have a weakened immune system
- live in a tropical or humid area
- have chronic otitis externa.

What are the symptoms of an outer ear infection?

Pain is the main symptom of an outer ear infection. Your ear may also feel **itchy** and **full**, as if it is blocked, so sounds may be a bit muffled. The symptoms come on quickly, over a day or two.

To diagnose outer ear infection, your doctor will need to look into your ear. This can be painful, but it's important your doctor assesses you first before they recommend treatment.

What treatments work for outer ear infections?

Specific treatment for an outer ear infection will depend on whether you have a simple or more complicated infection.

Simple outer ear infection

The main treatment for a simple outer ear infection is **antibacterial** ear drops, which you squeeze into your ear. Depending on which one your doctor recommends, you will need to use these ear drops for 7 to 10 days.

Sometimes if you have bits of skin and wax blocking your ear, the ear drops may not be able to work properly. So your doctor may carefully clean out your ear canal before you start ear drops.

To help the drops work as best as they can, it's important that you lie down with your affected ear facing upwards and wait **5 to 10** minutes before getting up.

Your symptoms should get better within **2 to 3 days** of treatment. If this doesn't happen, speak with your doctor. They might want to assess you again and recommend other treatment.

People with medical conditions

If you have an outer ear infection and a medical condition that weakens your immune system (e.g., diabetes or HIV), your doctor will recommend that you take **antibiotic pills** with your ear drops.

This is because a weakened immune system increases your chances of developing worse symptoms or a severe ear infection called **necrotizing otitis externa**.

Fungal infections

The main treatment for fungal infections are with a different type of ear drop. Your doctor may recommend ear drops with **acidifying agents**. If these don't work, they may suggest **antifungal** ear drops instead. Both types help to stop the growth of fungus and treat your infection.

You may also be treated with **antifungal** pills, depending on what type of fungus has caused your infection.

Outer ear infection

Regular **cleaning** and **debridement** of your ear by a medical professional is an important part of treatment too. **Debridement** is the removal of dead skin or "tissue" from your ear to help promote healing.

In some cases, this type of infection can increase the chance of your eardrum being damaged. Standard treatment can usually help with this, but your doctor may recommend a procedure to repair the damage.

Severe infection (necrotizing otitis externa)

Necrotizing otitis externa is a **severe** outer ear infection. It mainly affects older people with diabetes or those with a weakened immune system. If you have been diagnosed with it, you'll need to be admitted to hospital for treatment.

Some doctors recommend starting an **antibiotic drip** (i.e., intravenous or IV treatment) straightaway. Others suggest taking **antibiotic pills** first and then switching to an antibiotic drip if pills haven't helped. Your doctor will let you know what treatment they think will work best for you.

As with fungal infections, **debridement** is an important part of treatment for this condition too. You'll also be given antibacterial ear drops on top of this.

Swelling in ear canal

Some people with outer ear infections develop severe swelling of the ear canal. This can make it difficult for ear drops to work properly.

If you develop severe swelling, your doctor will clean out your ear canal and place a thin sponge soaked in medication inside it. This is called a wick; it helps the medication reach the infection in your ear better.

Chronic infection

For some people, an outer ear infection can become **long-lasting** (chronic). Chronic outer ear infections are usually caused by:

- repeated outer ear infections
- previous outer ear infection with a bacteria or fungus
- a skin condition affecting your ear
- discharge from an infection in the middle part of your ear, behind your eardrum.

With chronic outer ear infections, your ear remains inflamed for weeks, months, or sometimes even years. It doesn't usually hurt, but your ear may feel itchy and you may notice some discharge from it. If this condition affects you, your doctor will give you advice about how to manage it.

Pain

Over-the-counter pain relievers like acetaminophen or ibuprofen can be used to treat pain for all patients. If these options don't work, speak with your doctor. You may need prescription medications to help manage your pain better.

What will happen to me?

Most people who have treatment for a simple outer ear infection find their symptoms are much better after **2 to 3** days of treatment. But if your symptoms have not improved or you find they are getting worse speak to your doctor.

If you have a severe infection, your doctor will want to monitor you to see if the treatment is helping.

If you suffer from **repeated** outer ear infections, your doctor may want to assess you and check whether you have any underlying conditions. But there are things you can do yourself to reduce your risk of future infections too. For example, using ear plugs when you swim and avoiding cleaning your ears with cotton swabs.

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