An ear infection with discharge can damage your hearing. But there are treatments that can stop an infection causing damage.

We’ve looked at the best and most up-to-date research to produce this information. You can use it to talk to your doctor or pharmacist and decide which treatments are right for you.

**What is ear infection with discharge?**

If your ear is leaking pus, you may have a hole in your eardrum. Your eardrum is stretched across the inner end of your ear canal. It vibrates when sound waves reach it, so you can hear.

A hole in your eardrum can be caused by an ear infection. Fluid builds up behind the eardrum. The pressure of the fluid can tear the eardrum.

Some people get a hole in the eardrum for other reasons, like hearing a very loud noise. If this happens, the ear may get infected because germs (bacteria) get through the hole.

Ear infections happen to adults and children, but they’re more common in children. Some things can make you more likely to get an ear infection with discharge. They include getting lots of colds and coughs, living in overcrowded housing, and eating a poor-quality diet.

**What are the symptoms?**

You may not notice the symptoms of ear infection with discharge if you’ve had it for a long time. It’s much less painful than a short-term ear infection. But it can damage your hearing more.

The main symptoms are pus coming out of your ear, not hearing as well as you used to, and mild ear pain or discomfort, like pressure inside your ear. You may get symptoms in one or both of your ears. You might have non-stop ear discharge, or it may come and go.

If you get these symptoms, see your doctor. He or she will examine your ear and ask how long you’ve had symptoms. If you’ve had pus coming from your ear for more than two weeks, you have a long-term infection. Doctors call this **chronic otitis media**.

**What treatments work?**

You’ll probably first have your ear cleaned by a specialist doctor or nurse and then have ear drops to treat the infection.

**Cleaning your ears** clears out bits of skin and pus, so that the ear drops can get to the infection. But there’s not much research to show whether it’s helpful.
A doctor might clean your ear canal with cotton buds, gauze (a type of thin material), or salt water. They might also use a gentle suction machine.

Ear cleaning should always be done by a specialist doctor or nurse. You shouldn't put anything into your ear canal yourself, even to clean it. You could damage your hearing.

**Ear drops**

**Antibiotic ear drops** can help dry up your ear and stop it leaking pus. Antibiotics kill the bacteria that cause infection. Research shows that one type, called ciprofloxacin (brand name Ciproxin), works better than antiseptic ear drops or antibiotic tablets. But there’s not enough evidence to say whether these ear drops can get rid of your infection for good, heal the hole in your eardrum, or improve your hearing.

You might get some side effects from antibiotic ear drops. These are usually mild and should go away when you stop using the drops. You might feel dizzy, get itching or stinging in the ear, get an earache, or get a yeast infection, like thrush. There is evidence that some antibiotics might damage your hearing if you have a hole in your eardrum. Usually only specialist doctors prescribe these types of antibiotics.

Some doctors prescribe **antibiotic ear drops together with steroid ear drops**. One example of combined drops is the antibiotic gentamicin with the steroid hydrocortisone (brand name Gentisone HQ). These are not the same as the steroids used by some bodybuilders. The steroids in ear drops are similar to chemicals produced naturally by your body to deal with inflammation. There’s no research to show if this treatment works better than antibiotic ear drops alone, or if it causes side effects.

**Antiseptic ear drops** don’t work as well as antibiotic drops. So they’re not used much any more. Antiseptic ear drops can make you feel dizzy and give you an earache.

**Tablets**

Taking **antibiotic tablets** doesn't work as well as using antibiotic ear drops. Taking antibiotic tablets as well as antibiotic ear drops is unlikely to help. You can get mild side effects from antibiotic tablets. These include feeling sick, stomach upset, diarrhoea, and allergic reactions.

**Surgery**

You can have an operation to repair the hole in your eardrum. This may improve your hearing.

The operation is called a **myringoplasty** or a **tympanoplasty**. The surgeon puts a small patch of tissue onto your eardrum to cover the hole.

There’s a good chance the hole in your eardrum will seal up after surgery, and your hearing may improve. But we don’t know if a repaired eardrum is likely to last in young children. Young children are more at risk of getting another ear infection. This might dislodge the patch.
Surgery is more likely to work if your surgeon is experienced in this kind of operation.

**What will happen to me?**

If you have had an ear infection with discharge for a while, you may find that you don't hear as well as you did before. If the infection isn't treated, your hearing might get worse.

If your child has a long-term ear infection, it could cause hearing difficulties and other problems. And if a child can't hear properly during the first three years of life, it's harder for the child to learn to speak and understand language. This can lead to problems at school.

There's also a slight risk of more serious problems if you don't get treatment. These conditions are rare. They include infection of the large bone behind your ear (mastoiditis) and extra skin growing in your ear (cholesteatoma). These can be treated with antibiotics or an operation. There is also a very slight risk of an ear infection spreading into your brain and causing meningitis or a brain abscess.