

# Patient information from BMJ

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## Middle ear infection

**Ear infections are common in children and can be painful. They usually get better by themselves in a few days. Pain relievers can help in the meantime. Some children may be given antibiotics, but they are not usually needed.**

### What is middle ear infection?

Ear infections can happen after your child gets an infection like a cold or a sore throat. The infection spreads down a tube called the **eustachian tube**, which connects your middle ear to the back of your nose. The middle ear is the part of your ear behind your eardrum.

When the infection gets into your child's ears it makes them swollen, blocked, and painful. Fluid builds up behind the eardrum. This makes it hard to hear and causes pain.

Ear infections are very common, especially in young children.

Anyone can get an ear infection. But children are more likely than adults to get them. Children who go to nursery or a play group are most likely to get them, because infections spread easily among groups of children.

### What are the symptoms?

The most common symptoms are **ear pain** and **fever**. Other symptoms can include:

- Having trouble hearing
- Vomiting, and
- Fluid in the ears (if your child's eardrum tears).

Very young children won't be able to tell you they are in pain, or where it hurts. And they might seem irritable and hard to settle.

Older children might say they have pain elsewhere - for example, saying they have a sore tummy. Your child might also rub or pull at their ear.

### What treatments work?

Most children recover from ear infections in a few days. Pain relievers can help in the meantime. Some children might need antibiotics.

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## Medications

**Pain relievers**, such as acetaminophen and ibuprofen, can't cure your child's ear infection. But they can help to make your child feel better by relieving the pain. You can buy acetaminophen and ibuprofen for children at a pharmacy.

**Note: children should never be given aspirin.**

**Antibiotics** (drugs that kill bacteria) might help your child recover from an ear infection faster, by about one day. But most children get better anyway without antibiotics.

Most doctors are now careful not to prescribe antibiotics unless a child definitely needs them. This is because overuse of antibiotics is reducing how well they work. This is called **antibiotic resistance**.

Your doctor might suggest what's sometimes called a wait-and-see prescription. This means that the doctor gives you a prescription for antibiotics for your child, but you wait a few days to see if your child gets better without them.

Most children get better during these few days. But if your child doesn't get better, you can use the prescription.

## Surgical treatments

If a child is in severe pain, or if the infection is not clearing up, your doctor might suggest a procedure called **tympanocentesis**. This involves putting a needle into the ear drum to relieve the pressure, and sometimes taking a sample of fluid to check for bacteria.

Doctors used to put small tubes called **grommets** into children's ears, to try to prevent repeated ear infections. Grommets keep open a hole in the eardrum, so fluid can drain out more easily.

This operation is still done for "glue ear", which is when fluid gets trapped in the ear and causes hearing problems. But there isn't much evidence that this treatment helps prevent repeat infections.

## What will happen to my child?

Most children who have an ear infection get better after two days to three days, whether or not they have antibiotics.

A few children get repeated ear infections, or need another course of antibiotics. But children tend to get fewer ear infections the older they get.

Ear infections can cause problems if they don't clear up properly. After an ear infection, fluid can get trapped inside a child's ear (glue ear). It can stop the child hearing properly, which can make learning difficult.

Rarely, an ear infection can spread to the large bone behind a child's ear. This can cause severe pain, swelling, and tenderness behind the ear.

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Having pneumococcal and flu **vaccinations** might help your child avoid ear infections.

If your child's ear infection doesn't get better in a couple of days, go back to your doctor.

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