

Watchful waiting: A good way to treat your child's mild ear infection

Information for parents from the Pediatric Emergency Team

Your child has a mild ear infection. These infections are common in young children. They often occur after a child has had a cold for a few days.

What are the symptoms?

Children with ear infections are often fussy or cranky, and may have:

- an ear ache
- a fever (temperature 38°C or higher)
- loss of appetite (eating or drinking less than usual)
- diarrhea (loose or watery bowel movements)
- vomiting (throwing up)



The doctor can tell your child has an infection by looking inside their ear.

With a middle ear infection, the eardrum looks red and may be bulging with fluid or pus behind it.

What causes an ear infection?

Ear infections are caused by germs called viruses, germs called bacteria, or both together. Most mild ear infections are caused by viruses.

Germs can travel from the back of the throat through a tube (called the Eustachian tube) which attaches to the middle part of the ear. If the tube is swollen or blocked, as often happens after a cold, fluid builds up in the middle ear. The germs can multiply in the fluid and cause an infection.

How do you decide which treatment is best?

Bacterial germs can be killed with antibiotic medicines but virus germs cannot. Luckily, virus germs often cause mild infections. This is one of the reasons that many mild ear infections will go away by themselves, even without antibiotics.

On the other hand, children with really bad, or 'severe', ear infections should always be given antibiotics. This is because bacteria germs are more likely to cause severe infections and giving antibiotics can prevent a severe infection from getting even worse.

So how do we decide whether or not your child should be given antibiotics to treat their infection?

To make the safest, best choice for your child, we have to carefully weigh the potential *benefit* of taking antibiotics against the potential *harm* of taking antibiotics.

- The benefit of antibiotics is that they kill bacteria germs and often help children get better faster. Antibiotics should always be given for severe infections.
- On the other hand, antibiotics can also cause problems. There are probably four main types of antibiotic harms you should know about.

Possible harms from antibiotics:

- Side effects such as rashes, diarrhea, and serious allergic reactions.
- Antibiotics can kill many of the 'normal, healthy' bacteria that live in your child's body. These healthy bacteria, known as the 'microbiome', play an important role in helping your child's body develop properly. When these healthy bacteria are killed by antibiotics, they are often replaced by other bacteria which are not as helpful. These changes in bacteria have been linked to the development of health problems such as obesity, asthma and allergies.
- Using antibiotics again and again can lead to your child's bacteria getting used to these medicines. When this happens, these 'resistant' bacteria need more powerful antibiotics to kill them. These more powerful antibiotics can cause more side effects and more harmful changes to the normal healthy bacteria that live in your child's body.
- Antibiotics cost families money.

How will my child's ear infection be treated?

The Canadian Pediatric Society recommends that children with mild ear infections can be treated with **watchful waiting**. This means not giving antibiotics right away since most children will get better within a day or so.

Your doctor has decided that watchful waiting is the safest and best plan for your child. Here is what you need to do:

- ✓ **Watch** your child's symptoms at home over the next 1 to 2 days.
- ✓ **Wait** to see if your child starts to feel better.
- ✓ If your child's ear is painful or your child continues to have fever, you can give them acetaminophen (Tylenol®) or ibuprofen (Advil® or Motrin®).

If your child worsens after going home or does not get better in 2 days (ear is painful or fever continues), fill the antibiotic prescription that the doctor gave you and start giving your child the medicine. To clear up the infection completely, your child must take all the antibiotics. Do not stop giving them, even if your child feels better quickly.

If your child does not improve after taking antibiotics for 2 days, see your family doctor or return to the hospital emergency department.

Why not give antibiotics right away?

- Most mild ear infections will get better on their own.
- Antibiotics do not kill virus germs, which cause most mild ear infections. They kill bacteria and are always given for severe infections.
- Antibiotics may cause harm, so they are only used when necessary.