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## Antibiotics for Ear Infections in Children: When you need them—and when you don't

Many children get ear infections. The infections are usually in the middle ear behind the eardrum.

They may be caused by bacteria or by a virus. Health care providers often treat bacterial infections with antibiotics. Antibiotics are strong medications that kill bacteria.

Infants and some children do need antibiotics. But using antibiotics when they are not needed can be harmful. Here's why:

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### **In most cases, antibiotics are not needed.**

- They do not work for ear infections caused by viruses.
- They do not immediately help the pain.
- Usually, viral infections and some bacterial infections go away on their own in two to three days, especially in children who are over two years old.

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### **First, treat the pain and talk to a health care provider.**

If you think your child has an ear infection, you should speak with a health care provider and describe the symptoms.

The main sign of an ear infection is pain, especially on the first day. Or, a child may have a fever.



Start by giving your child an over-the-counter pain reliever, such as:

- Acetaminophen (Infants' or Children's Tylenol® and generic).
- Ibuprofen (Children's Motrin®, Advil® and generic).
- Do NOT give acetylsalicylic acid (Aspirin®) or any medicine containing it to children.

Antibiotics do not relieve pain in the first 24 hours. They only have a small effect on pain after that. So, pain relievers may be the only treatment needed.

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## **Give most children two or three days to get better.**

Ask your health care provider if antibiotics are necessary or if a “wait and see” approach may work. Children whose ear infections are managed this way recover just as well as children who get antibiotics right away.

However, your child should see a health care provider if symptoms do not improve in two to three days or if they get worse at any time.

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## **Antibiotics can have side effects.**

When children take antibiotics at the first sign of an ear infection, they can have vomiting, diarrhea, and allergic reactions. Also, antibiotics can kill “friendly” germs in the body and cause other problems like diarrhea.

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## **Antibiotics can help drug-resistant bacteria grow.**

These bacteria are harder to kill. This is called “antibiotic resistance” and it can cause illnesses that are harder to cure. This increases the risk of complications and side effects. The resistant bacteria can also infect other people.

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## **About Choosing Wisely Canada**

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

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## **When is treatment with antibiotics needed?**

If the infection is very painful and lasts more than a few days, chances are it is a bacterial infection.

Sometimes immediate treatment is important. These children often need antibiotics right away:

- Infants six months old or younger.
- Children who have moderate to severe ear pain.
- Children who have a fever of 39°C or higher.
- Children with another condition that could make it harder to heal, including children with:
  - o A cleft palate
  - o Down syndrome
  - o An immune disorder
  - o A cochlear implant

## **If your child is prescribed antibiotics:**

- Only give your child antibiotics prescribed by their health care provider, and follow the dosage exactly.

## **How this pamphlet was created:**

This pamphlet was adapted with permission from a similar pamphlet used in the US Choosing Wisely campaign, organized by the ABIM Foundation. Modifications were made to ensure relevance for a Canadian audience. This pamphlet was reviewed by Dr. Olivia Ostrow.

This pamphlet is for you to use when talking with your health care provider. It is not a substitute for medical advice and treatment. Use of this pamphlet is at your own risk.