



Antibiotics and Respiratory Infections

Do antibiotics help with respiratory infections?

It depends on what's causing your illness. Respiratory infections affect your breathing system. This can include your nose, sinuses, bronchial tubes, and lungs. Sometimes the ears are also affected (earaches), especially in young children.

Antibiotics are medications that are helpful for infections caused by bacteria.

If your infection is caused by a virus, antibiotics won't cure it or make you feel better.

Viruses cause most respiratory infections, including:

- Colds and flu
- COVID-19
- Sinus infections
- Bronchitis (chest colds)
- Sore throats, especially with a cough, runny nose, hoarse voice, or mouth sores

Colds are very common. On average, every year:

- Adults get 2 to 4 colds.
- Children get 5 to 6 colds.
- Babies and toddlers get 7 to 12 colds.

Bacteria cause infections such as:

- Strep throat
- Ear infections
- Some sinus infections
- Pneumonia

Are there problems with taking antibiotics for a virus?

Yes, taking antibiotics when you don't need them can cause:

- Side effects
- Antibiotic resistance

Antibiotic side effects. About 1 in 4 people who take antibiotics have side effects such as upset stomach, dizziness, or rashes. A less common but more serious side effect is *C. difficile* infection. It can cause severe diarrhea. Rarely, antibiotics cause severe allergic reactions.

Antibiotic resistance. For decades, many people have taken antibiotics when they didn't really need them. This has allowed bacteria that cause illnesses to adapt to these medications. They've become stronger and harder to kill (antibiotic resistant). Now, many antibiotics no longer work against common bacterial infections.

How can I help myself or my child recover from a respiratory infection?

You can use these tips to help with recovery:

- Rest and drink plenty of fluids.
- Use a humidifier with distilled water (be sure to clean it daily).
- Use acetaminophen (Tylenol) or ibuprofen (Motrin, Advil) for fever or body aches. If you're unsure about the safe dosage for your child, contact our Appointment and Advice Call Center at (866) 454-8855.

Be cautious giving over-the-counter cold and cough medicines to your child. They often don't work for children and can be unsafe for them. Don't give these medications to children younger than age 6.

How can I prevent respiratory infections?

To prevent respiratory infections:

- Wash your hands often.
- Cover your mouth or nose when you sneeze or cough.
- Stay home from work and school when sick.
- Get a flu shot every year.

Teach these to your kids as well.

When to call us (adults)

Call our Appointment and Advice Call Center at 866-454-8855 right away if you have:

- Symptoms for 10 days without any improvement.
- Symptoms that start to feel better, then feel worse again.
- Difficulty breathing.
- Severe pain.
- Fever over 100.4°F with stiff neck, rash, or severe headache.
- Very sore throat or trouble swallowing.
- Cough for more than 3 weeks.
- Deep cough with lots of mucus.
- Severe ear pain, sudden hearing loss, or discharge from the ear.
- Vomiting, diarrhea, or dehydration.
- Confusion or lack of energy.

When to call us (children)

Call our Appointment and Advice Call Center at 866-454-8855 right away if your child has difficulty breathing.

Signs of difficulty can include:

- Chest caves in between breaths.
- Uses belly muscles to breathe.
- Makes grunting or wheezing sounds while breathing.
- Nostrils flare while trying to breathe.

Also call as soon as possible if your child has any of these symptoms:

- A very sore throat with trouble swallowing.
- A sore throat with a rash.
- Shaking chills with a cough or nighttime cough spasm.
- Severe ear pain.

- Fever of 100.4°F or higher that doesn't go down (improve) with home treatment. How long to continue home treatment before you call us depends on your child's age. If your child is:
 - 2 months or younger, call the day fever starts (rectal temperature)
 - 3 months to 3 years, call if fever lasts more than 3 days
 - 3 years and older, call if fever lasts more than 5 days.

Please also call if your child (age 3 months or older) has a cough or a cold for 10 days without improving.

Additional resources

For more health information, visit kp.org/mydoctor/flu.

This information is not intended to diagnose or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist. Kaiser Permanente does not endorse the medications or products mentioned. Any trade names listed are for easy identification only. Some photos may include models and not actual patients.