

# Antibiotics - When Do They Help?

## Definition

- Antibiotics are strong medicines that can kill bacteria
- However, they are often over-used in our society
- Here is some advice about when antibiotics are helpful and when they are not

## Health Information

### Overview

- Antibiotics are powerful drugs that can kill bacteria. They have saved many lives and prevented serious outcomes.
- These drugs, however, do not kill viruses. They only work on bacteria.
- Every day, doctors must decide if a child's infection is viral or bacterial. Here's how they do it.

**Bacterial Infections.** Much less common than viral infections. Antibiotics can help. Bacteria cause:

- Most ear infections
- Most sinus infections (not just sinus congestion)
- 20% of sore throats which are Strep throats
- 10% of pneumonia (a lung infection)

**Viral Infections.** Most infections in children are caused by a virus. Antibiotics do NOT help. Viruses cause:

- 100% of colds. (Note: unless they turn into an ear or sinus infection. This happens with 5 to 10% of colds.)
- 95% of new coughs. (Note: asthma can also start with a cough.)
- 95% of fevers
- 80% of sore throats
- 90% of pneumonia. (Note: most cases in children are caused by a virus.)
- 99% of diarrhea and vomiting
- Note: There are a few anti-viral drugs that can treat viral infections. An example is Tamiflu used for severe influenza.

## Care Advice

### 1. Cold Symptoms that are Normal:

- Parents sometimes are worried about common cold symptoms. The symptoms below are not signs of bacterial infections. Nor, are they a reason to start antibiotics.
- Green or yellow nose discharge. This is a normal part of getting over a cold. It is not a clue to a sinus infection.
- Green or yellow coughed up phlegm. This is a normal part of getting over viral bronchitis. It is not a sign of pneumonia.
- High fevers. High fevers (more than 104 F or 40 C) can be caused by a virus or bacteria.

2. **Don't Request Antibiotics for Viral Infections:**

- If your child has a virus, an antibiotic won't get rid of the fever. It will not help the other symptoms.
- The drug will not get your child back to school sooner. It will not get you back to work any faster.
- If your child has side effects from the drug, he will feel worse.

3. **Side Effects of Antibiotics:**

- All antibiotics have side effects. Some children taking these drugs can get diarrhea, nausea, vomiting, or a rash.
- Loose stools occur because the drug kills off the good bacteria in the gut.
- If your child gets a rash, it can be from the drug. Your doctor has to decide if the rash is an allergy or not.
- The biggest side effect of overuse is called antibiotic resistance. This is when the germs are no longer killed by the drug. That's why we only use antibiotics if your child really needs one.

4. **Save Antibiotics for Bacterial Infections:**

- Antibiotics only help with bacterial infections. That's when your child really needs them.
- Don't pressure your child's doctor for an antibiotic.
- Treat your child's cold and cough symptoms with home treatment that works.
- Keep in mind that fever is fighting the infection. It also boosts the immune system to prevent future infections.

## Call Your Doctor If

- You have other questions or concerns

### Pediatric Care Advice

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