

## **What are antibiotics?**

Antibiotics are powerful drugs used for treating many serious and life-threatening infectious diseases, but taking them when you don't need to can lead to antibiotic-resistant germs. Antibiotics are only effective against bacterial infections, certain fungal infections and some kinds of parasites. Most infections result from either bacteria or viruses. Antibiotics won't help you if a virus is responsible for your illness.

### **Bacterial infections cause:**

- Some ear infections
- Severe sinus infections
- Strep throat
- Urinary tract infections
- Many wound and skin infections

### **Viral infections cause:**

- Most ear infections
- Colds
- Influenza (flu)
- Most coughs
- Most sore throats
- Bronchitis
- Stomach flu (viral)

## **How antibiotic resistance develops**

Since penicillin was introduced in the 1940s, scientists have developed more than 150 antibiotics to help stop the spread of infectious disease. Although these drugs have saved millions of lives, the misuse of antibiotics has caused problems. Their frequent use, often for conditions or infections that aren't caused by bacteria, has given rise to bacteria that are resistant to many commonly used antibiotics.

## **Safeguard effective antibiotics: What you can do.**

Using antibiotics too often or incorrectly is a major cause of the increase in resistant bacteria. Here are some things you can do to promote proper use of antibiotics:

### **Understand when antibiotics should be used.**

- Don't expect to take antibiotics every time you're sick.
- Antibiotics are effective in treating most bacterial infections, but they're not useful against viral infections, such as colds, acute bronchitis, or the flu.
- And even some common bacterial ailments, such as mild ear infections, don't benefit much from antibiotics.

**Don't pressure your doctor for antibiotics if you have a viral illness.**

- Instead, talk with your doctor about ways to relieve the symptoms of your viral illness — a saline nasal spray to clear a stuffy nose, for instance, or a mixture of warm water, lemon and honey to temporarily soothe a sore throat.

**Take antibiotics exactly as prescribed.**

- Follow your doctor's instructions when taking prescribed medication, including how many times a day and for how long.
- Never stop treatment a few days early if you start feeling better — a complete course of antibiotics is needed to kill all of the harmful bacteria.
- A shortened course of antibiotics, on the other hand, often wipes out only the most vulnerable bacteria, while allowing relatively resistant bacteria to survive.

**Never take antibiotics without a prescription.**

- If you didn't complete a full course of antibiotics, you might be tempted to use the leftover medication the next time you get sick or to pass it along to someone else.
- But this isn't a good idea. For one thing, the antibiotic might not be appropriate for a future illness. And even if it is, you're not likely to have enough pills to combat the germs making you sick, which can lead to more resistant bacteria.

**Protect yourself from infection in the first place.**

- Good hygiene can go a long way in preventing infection.
- Wash your hands thoroughly with soap and water, especially after using the toilet, changing a diaper or handling raw meat or poultry.
- Keep food preparation areas clean. Although antibacterial cleaners and soap are widely available, they aren't necessary. Plain soap and water works fine to kill germs in most settings.