Why does taking antibiotics lead to antibiotic resistance?

Any time antibiotics are used, they can cause side effects and lead to antibiotic resistance. Antibiotic resistance is one of the most urgent threats to the public's health. Always remember:

1. Antibiotic resistance does not mean the body is becoming resistant to antibiotics; it is that bacteria have become resistant to the antibiotics designed to kill them.
2. When bacteria become resistant, antibiotics cannot fight them, and the bacteria multiply.
3. Some resistant bacteria can be harder to treat and can spread to other people.

Each year in the United States, at least 2 million people get infected with antibiotic-resistant bacteria. At least 23,000 people die as a result.

What is the right way to take antibiotics?

If you need antibiotics, take them exactly as prescribed.

Improving the way healthcare professionals prescribe antibiotics, and the way we take antibiotics, helps keep us healthy now, helps fight antibiotic resistance, and ensures that these life-saving drugs will be available for future generations.

Talk with your doctor if you have any questions about your antibiotics, or if you develop any side effects, especially diarrhea, since that could be *Clostridium difficile* infection (also called *C. difficile* or *C. diff*), which needs to be treated. *C. diff* can lead to severe colon damage and death.

What are the side effects?

Common side effects range from minor to very severe health problems and can include:

- Rash
- Dizziness
- Nausea
- Diarrhea
- Yeast infections

More serious side effects can include:

- *Clostridium difficile* infection
- Severe and life-threatening allergic reactions

To learn more about antibiotic prescribing and use, visit **www.cdc.gov/antibiotic-use**.

CDC

Antibiotics Aren't Always the Answer.

BE ANTIBIOTICS AWARE

SMART USE, BEST CARE

Why is it important to Be Antibiotics Aware?

Antibiotics save lives. When a patient needs antibiotics, the benefits outweigh the risks of side effects or antibiotic resistance.

When antibiotics aren't needed, they won't help you, and the side effects could still hurt you. Reactions from antibiotics cause 1 out of 5 medication-related visits to the emergency department.

In children, reactions from antibiotics are the most common cause of medication-related emergency department visits.

What do antibiotics treat?

Antibiotics are only needed for treating certain infections caused by bacteria. Antibiotics are critical tools for treating common infections, such as pneumonia, and for life-threatening conditions including sepsis, the body's extreme response to an infection.

What don't antibiotics treat?

Antibiotics do not work on viruses, such as colds and flu, or runny noses, even if the mucus is thick, yellow or green. Antibiotics also won't help some common bacterial infections including most cases of bronchitis, many sinus infections, and some ear infections.

How can I stay healthy?

You can stay healthy and keep others healthy by:

- Cleaning hands
- Covering coughs
- Staying home when sick
- Getting recommended vaccines, for the flu, for example

Talk to your doctor or nurse about steps you can take to prevent infections.