Why does taking antibiotics lead to antibiotic resistance?

Any time you take antibiotics, they can cause side effects and contribute to the development of 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 means bacteria are developing the ability to defeat 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.

What is the right way to take antibiotics?

If you need antibiotics, take them exactly as prescribed. Never save your antibiotics for later use or share them with family or friends.

Taking antibiotics only when needed 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 healthcare professional if you have any questions about your antibiotics, including how they could interact with other medications you are taking, or if you develop any side effects.

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

Get immediate medical help if you experience:

- **Severe diarrhea**—it could be a symptom of a *C. diff* infection, which can lead to severe colon damage and death.
- **Severe and life-threatening allergic reactions**, such as wheezing, hives, shortness of breath, and anaphylaxis (which also includes feeling that your throat is closing or choking, or your voice is changing).

More than 2.8 million antibiotic-resistant infections occur in the United States each year, and more than 35,000 people die as a result.

To learn more about antibiotic prescribing and use, visit [www.cdc.gov/antibiotic-use](http://www.cdc.gov/antibiotic-use) or call 1-800-CDC-INFO.
**What do antibiotics treat?**

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

**What don’t antibiotics treat?**

Antibiotics do not work on viruses, such as those that cause colds, flu, bronchitis, 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 by washing with soap and water for 20 seconds or using a hand sanitizer that contains at least 60% alcohol
- Covering your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow
- Getting recommended vaccines, such as the flu vaccine

Talk to your healthcare professional about steps you can take to help prevent illness.

**Why is it important to Be Antibiotics Aware?**

Antibiotics are powerful, life-saving drugs. When your healthcare professional prescribes antibiotics, take them as directed. Patients can experience side effects while taking antibiotics. But remember, when antibiotics are needed, their benefits outweigh the risks of side effects and antibiotic resistance.

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

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