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 means 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 residents in the nursing home.

What if I have questions about antibiotics?

Talk to your doctor and nursing staff if you have any questions about your antibiotics, such as:

- What infection does this antibiotic treat and do you know I have that infection?
- How long do I need to take this antibiotic?
- What are the potential side effects from this antibiotic?
- Could any of my other medications interact with this antibiotic?
- How will you know the antibiotic is working for my infection?

Let them know if you develop any side effects, especially diarrhea, which could be C. difficile infection and needs to be treated immediately.

Up to 70% of residents in a nursing home receive one or more courses of antibiotics each year.

40%–75% of antibiotics prescribed in nursing homes may be unnecessary or inappropriate.

To learn more about antibiotic prescribing and use, visit [www.cdc.gov/antibiotic-use](http://www.cdc.gov/antibiotic-use).
Why is it important to **Be Antibiotics Aware** in nursing homes?

Antibiotics are lifesaving medicines, and are frequently prescribed in nursing homes. When you need 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.

What do antibiotics treat?

Antibiotics are only needed for treating some infections caused by bacteria. Antibiotics are also critical tools for treating common infections, such as pneumonia, and for life-threatening conditions including 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 aren’t needed for some common bacterial infections, including many sinus infections and some ear infections.

What are the potential side effects of antibiotics?

Common side effects from antibiotics can include:
- Rash
- Nausea
- Yeast infections
- Dizziness
- Diarrhea

More serious side effects can include:
- *Clostridioides difficile* (also called *C. difficile* or *C. diff*) infection
- Life-threatening allergic reactions
- Interactions between antibiotics and other medications
- Infections with antibiotic-resistant bacteria, including *C. difficile*

What is *C. difficile* infection?

*C. difficile* is a bacteria that causes colitis, or inflammation of the colon. *C. difficile* infection can lead to severe colon damage, disabling diarrhea, and sometimes death.

When you take antibiotics, good bacteria in the body that protect against infection are destroyed. During this time, you can get sick from *C. difficile* bacteria that are picked up from contaminated surfaces or spread from another resident’s or healthcare professional’s hands.

Symptoms of *C. difficile* infection include:
- Watery diarrhea (at least three bowel movements per day for two or more days)
- Fever
- Nausea
- Abdominal (stomach) pain/tenderness
- Loss of appetite

More than 3 million Americans receive care or reside in nursing homes every year.

How can I stay healthy?

You can stay healthy and keep others healthy by:
- Insisting nursing home staff and visitors clean their hands before touching you or caring for your wound or catheter.
- Covering your cough to prevent the spread of germs.
- Asking family or friends not to visit when they don’t feel well.
- Staying in your room when sick.
- Protecting yourself by getting vaccines for flu and pneumonia and encouraging others around you to do the same.

Talk to your doctor and nursing home staff about steps you can take to stay healthy and prevent infections.

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 lifesaving drugs will be available for future generations.