



Indiana State Department of Health

Epidemiology Resource Center

Quick Facts

About....Antibiotic Use and Antibiotic Resistance

What are antibiotics?

Antibiotics are powerful medicines prescribed by a health care provider to kill disease causing bacteria. Antibiotics do not work against viral infections, such as the common cold or influenza (the flu).

How do antibiotics work?

Antibiotics work by killing bacteria that cause infection or by keeping those bacteria from growing. Different antibiotics work for different bacteria. It is important to take antibiotics exactly as directed by your health care provider. If you take antibiotics when you do not need them, they lose their strength and ability to kill the bacteria causing your infection. The bacteria will become resistant to the antibiotic, and the next time you need antibiotics, they may not work.

When do I need an antibiotic?

Your health care provider may prescribe an antibiotic if you have a bacterial infection. Your health care provider will review your symptoms and any laboratory tests to prescribe the antibiotic that is right for you. Antibiotics do not cure viral infections, such as the common cold or influenza (the flu). The risk for viral infections can be reduced by avoiding close contact with others and properly washing your hands (see Hand Washing Quick Facts).

What is antibiotic resistance?

Sometimes bacteria find a way to fight the antibiotic you are taking and your illness won't go away. This is called antibiotic resistance. If you are infected with these

resistant bacteria you will continue to be ill even though you are being treated with antibiotics. Illnesses caused by bacteria resistant to antibiotics can cause hospitalization, serious disability or even death. You can also spread these resistant bacteria to friends or family members.

Why should I be concerned about antibiotic resistance?

Antibiotic resistance is a public health concern, because these resistant bacteria can spread from person to person or from objects used by someone who is infected. These bacteria then cause new infections that are harder to treat, last longer or impossible to cure. People infected may need more expensive, stronger medications and may need to be hospitalized for longer periods of time. Antibiotics should be used wisely to preserve their effectiveness. If bacteria become resistant to all current antibiotics there are no other alternatives.

What can I do to control the spread of resistant bacteria?

Repeated and improper use of antibiotics is the main reason bacteria become drug resistant. Wash your hands properly to reduce the chance of getting sick and spreading infection. Proper use of antibiotics is extremely important:

- Only take antibiotics to treat bacterial infections. Antibiotics do not treat viral infections. See your health care provider if you think you have a bacterial infection.
- Take the antibiotic exactly as prescribed by your health care provider. Do not skip doses. Complete the entire course of treatment even if you feel better.
- Do not save antibiotics for another illness.
- Do not demand that your health care provider prescribe antibiotics when they are not needed. Ask what else you can do to relieve the symptoms.
- Do not take another person's antibiotic or share your antibiotic with someone else.

All information presented is intended for public use. For more information, please refer to:

Alliance for the Prudent Use of Antibiotics (APUA) at

<http://www.tufts.edu/med/apua/>

Centers for Disease Control and Prevention (CDC)

Get Smart: Know When Antibiotics Work campaign at

<http://www.cdc.gov/getsmart/campaign-materials/about-campaign.html>

Indiana Coalition for Antibiotic Resistance Educational Strategies (ICARES) at
www.icares.org

This page was last reviewed June 1, 2012.