

Antibiotics: Use & Misuse

When antibiotics won't work:

When you feel sick, you want to feel better fast. But antibiotics are not always the answer. Antibiotics only work to treat infections caused by bacteria. Using them for viruses will **NOT** make you feel better or get back to work faster.

- The common cold, flu, most sore throats, bronchitis and many sinus and ear infections are caused by viruses. Antibiotics do not help fight viruses.
- The majority of common respiratory infections are not helped by antibiotics, because they are caused by a virus.
- Yellow or green mucus does not indicate a bacterial infection.
- If your health care provider determines your illness is being caused by a virus, ask him or her for tips on how to relieve symptoms and feel better.

Illness	Usual Cause		Antibiotic Needed
	Viruses	Bacteria	
Cold/Runny Nose	X		NO
Bronchitis/Chest Cold (in otherwise healthy children and adults)	X		NO
Whooping Cough		X	Yes
Flu	X		NO
Strep Throat		X	Yes
Sore Throat (except strep)	X		NO
Fluid in the Middle Ear (otitis media with effusion)	X		NO
Urinary Tract Infection		X	Yes

Risks of antibiotic use:

- Taking antibiotics can increase the risk of getting an antibiotic-resistant infection later.
- Antibiotics not only kill bad bacteria, but also kill the body's good bacteria. This can lead to other infections such as *Clostridium difficile* and other antibiotic-associated diarrhea.

- Antibiotics cause 1 out of 5 emergency department visits for adverse drug events. Antibiotics are also the most common cause of emergency department visits for adverse drug events in children under 18 years of age.

Antibiotic Resistance:

Antibiotic resistance is when bacteria can no longer be killed by the antibiotics usually used to kill them. Antibiotic resistance is a growing problem in the United States and worldwide. It is estimated that 2 million illnesses and 23,000 deaths occur in the United States each year due to antibiotic-resistant infections. The main cause of increasing antibiotic resistance is the overuse and misuse of antibiotics. It is estimated that 30 percent of antibiotics prescribed are unnecessary. To avoid the treatment of antibiotic-resistant infections, it is important to avoid taking unnecessary antibiotics.

When antibiotics are important to take:

The risks of antibiotic use are outweighed by their benefits in the treatment of many bacterial infections. Antibiotics can be lifesaving medications. Only a health care provider can determine if an illness is most likely caused by bacteria such as bacterial pneumonia, bacterial skin infection or urinary tract infection. In some instances, a provider will collect samples from a patient that will be sent to a lab to determine if an infection is bacterial and, if so, what the best antibiotics are to treat the specific infection.

How to take antibiotics:

To take antibiotics safely:

- Take them exactly as your provider has prescribed.
- Do not skip doses.
- Do not share with others or take from others.
- Finish the prescription even if you start to feel better.
- Do not save antibiotics for later.
- Ask if probiotics are recommended to help the body maintain its good bacteria.

Resource: <http://www.cdc.gov/getsmart/>

Visit our website for more information about support groups, clinical trials and lifestyle information.

PTE.353 © Copyright 2016

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

National Jewish Health is the leading respiratory hospital in the nation. Founded 119 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.