



## Get Smart: Know When Antibiotics Work

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FOR IMMEDIATE RELEASE  
Wednesday, Sept. 17, 2003

Contact: CDC Media Relations  
(404) 639-3286

## **HHS, PUBLIC HEALTH PARTNERS UNVEIL NEW CAMPAIGN TO PROMOTE AWARENESS OF PROPER ANTIBIOTIC USE**

The Department of Health and Human Services and a consortium of national health organizations today urged consumers to be cautious about their use of antibiotics as the cold and flu season approaches. Officials stressed that antibiotics are ineffective treatment for viruses, such as those that cause colds and flu, and that inappropriate antibiotic use — particularly among children — is contributing to an alarming growth of global antibiotic resistance.

“Antibiotics show amazing results when used to treat bacterial infections, but they won’t help at all against the common cold or flu,” Surgeon General Richard Carmona said. “What’s worse, if people take antibiotics when they don’t need them, it can make these important drugs less effective in the future. This is part of health literacy and closing the gap between what health-care professionals know and what Americans understand.”

The message is part of a new national campaign unveiled by HHS’ Centers for Disease Control and Prevention (CDC) and Food and Drug Administration (FDA) and major national health organizations in Chicago today.

“Antibiotics are powerful drugs. In fact, sometimes we imagine they are wonder drugs that can treat any infections,” said CDC Director Julie Gerberding, M.D. “But the truth is antibiotics only work against bacteria, not the viruses that cause colds and flu,” she added. “It’s so important to get smart about antibiotic use and work with your doctor to get the right remedy during this cold and flu season.”

Antibiotic resistance can cause significant danger and suffering for children and adults who have common infections that were once easily treatable with antibiotics. Over the last decade, almost every type of bacteria has become stronger and less responsive to antibiotic treatment when it is really needed. These antibiotic-resistant bacteria can quickly spread to family members, school mates, and co-workers — threatening the community with a new strain of infectious disease that is more difficult to cure and more expensive to treat.

CDC, FDA, and an alliance of partners including national health organizations, state and local health departments, managed care organizations, pharmaceutical companies, and other groups concerned about this problem, hope to reverse the public perception that ‘antibiotics cure everything’ by unveiling a public health campaign, *Get Smart: Know When Antibiotics Work*, today at the American Society of Microbiology’s 43<sup>rd</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy. The campaign relies on featuring a series of television, radio, and print public service announcements and comprehensive national, state, and local outreach. The campaign aims to better inform Americans about when antibiotic treatment is warranted.

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“We are pleased to be partnering with CDC on this very important health message. By joining our efforts with those at the state level and private sector we hope that more people will begin to understand the importance of prudent antibiotic use. This campaign will help ensure that antibiotics continue to save lives,” FDA Commissioner Dr. Mark B. McClellan said.

According to the CDC, tens of millions of the antibiotics are prescribed in doctors’ offices for viral infections that are not treatable with antibiotics. Doctors cite diagnostic uncertainty, time pressure, and patient demand as the primary reasons for their tendency to over-prescribe antibiotics.

“Our first step toward correcting the problem is to build public knowledge and awareness of when antibiotics work — and when they don’t,” said Richard Besser, M.D., CDC’s medical director of the campaign. “We want Americans to keep their families and communities healthy by getting smart about the proper use of antibiotics.”

The campaign is being supported by many public health groups, including the American Academy of Pediatrics, the American Medical Association, the American Academy of Family Physicians, the Alliance for the Prudent Use of Antibiotics and Council for Affordable Quality Healthcare.

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*Note: All HHS press releases, fact sheets and other press materials are available at [www.hhs.gov/news](http://www.hhs.gov/news)*



## CDC News Conference Antibiotic Resistance



September 17, 2003

Contact: CDC, Division of Media Relations  
(404) 639-3286

**WHO:** Dr. Richard Besser, MD, Medical Director, *Get Smart: Know When Antibiotics Work* campaign; acting chief of the Meningitis and Special Pathogens Branch in the National Center for Infectious Diseases at the Centers for Disease Control and Prevention (CDC)

Peter J. Pitts, Associate FDA Commissioner for External Relations, Food and Drug Administration

Michael O. Fleming, M.D., president-elect of the American Academy of Family Physicians; family physician in Shreveport, La.

Dr. Margaret B. Rennels, MD, FAAP, Professor of Pediatrics, University of Maryland School of Medicine

**WHAT:** Antibiotic resistance — one of the world's most pressing public health problems. Public officials and medical experts will discuss the need for appropriate antibiotic use and unveil CDC's *Get Smart: Know When Antibiotics Work* campaign.

**WHEN:** **Wednesday, September 17, 2003**  
**9:00 a.m., CT**  
Brief remarks followed by Q & A

**WHERE:** Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)  
**McCormick Place** (2301 S. Lake Shore Dr.)  
Lakeside Center Room E 270  
Phone: (312) 791-7000

**NOTES:** A video on this subject will be fed via satellite at 2:00 p.m. The coordinates are as follows:  
Telstar 6, C Band  
Transponder 9  
Dual audio 6.2/6.8

ICAAC Session of Special Interest: Dr. Karen Kiang's poster on "Changes in Knowledge and Decisions Among Primary Care Clinicians Regarding Antibiotic Use for Upper Respiratory Infections — Wisconsin versus Minnesota, 1999-2002" (Session 159, L-1602)

For more information about antibiotic resistance and the *Get Smart: Know When Antibiotics Work* campaign, please call (404) 371-5416 or visit [www.cdc.gov/getsmart](http://www.cdc.gov/getsmart).

CDC protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

DEPARTMENT OF HEALTH AND HUMAN SERVICES



## CAMPAIGN PARTNERS

CDC, joined by the Food and Drug Administration (FDA), and an alliance of partners including national health organizations, state and local health departments, managed care organizations, pharmaceutical companies, and other groups concerned about this problem, hope to reverse the public perception that 'antibiotics cure everything' by unveiling a public health campaign, *Get Smart: Know When Antibiotics Work*. Additional information about the campaign's founding partners is provided below.

### **Food and Drug Administration**

The U.S. Food and Drug Administration is under the U.S. Department of Health and Human Services. The mission of the FDA is to promote and protect the public health by helping safe and effective products reach the market in a timely way, and monitoring products for continued safety after they are in use.

Press: For more information about FDA, contact Sherunda Lister at 301-827-1669 [listers@cder.fda.gov](mailto:listers@cder.fda.gov) and visit [www.fda.gov](http://www.fda.gov).

**American Academy of Family Physicians (AAFP)**. AAFP represents more than 94,300 physicians and medical students nationwide. It is the only medical specialty society devoted solely to primary care. Family physicians provide comprehensive care to all members of the family and serve as the patient's advocate in the health-care system. Family physicians are the only specialists qualified to treat most ailments, and to provide comprehensive health care for people of all ages. In fact, almost 200 million office visits are made to family physicians each year. This is 75 million more visits than to any other medical specialty.

Press: For more information about AAFP, contact Karen Siebert at 913-906-6000, ext. 5221 ([ksiebert@aafp.org](mailto:ksiebert@aafp.org)) and visit [www.aafp.org](http://www.aafp.org).

**American Academy of Pediatrics (AAP)**. The AAP is an organization of 57,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety, and well being of infants, children, adolescents, and young adults. It was founded in June 1930 by 35 pediatricians who met in Detroit in response to the need for an independent pediatric forum to address children's needs. When the AAP was established, the idea that children have special developmental and health needs was a new one. Preventive health practices now associated with child care – such as immunizations and regular health exams – were only just beginning to change the custom of treating children as "miniature adults."

Press: For more information about AAP, contact Carolyn Kolbaba at 847-434-7945 ([ckolbaba@aap.org](mailto:ckolbaba@aap.org)) and visit [www.aap.org](http://www.aap.org).

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**The Alliance for the Prudent Use of Antibiotics (APUA).** Founded in 1981, APUA's mission is to improve infectious disease treatment and contain antibiotic resistance by promoting antibiotic access and improving antibiotic use worldwide. A nonprofit organization, it is committed to improving health policy and clinical practice worldwide through research and education of consumers and practitioners. With chapters in 46 countries, APUA provides clinical and scientific leadership to prevent antibiotic resistance and strengthen society's defenses against infectious diseases throughout the world.

Press: For more information from APUA, contact Stefanie Valovic at 617-636-3574 ([stefanie.valovic@tufts.edu](mailto:stefanie.valovic@tufts.edu)) and visit [www.apua.org](http://www.apua.org).

**American Medical Association (AMA).** AMA is the nation's leader in promoting professionalism in medicine and setting standards for medical education, practice, and ethics. As the largest physician membership organization in the United States, the AMA has been on the forefront of every major development in American medicine since it was founded in 1847. The AMA is ranked by members of Congress and the federal government as the most influential health care organization in the country.

Press: For more information from AMA, contact Ross Fraser at 312-464-4443 ([Ross\\_Fraser@ama-assn.org](mailto:Ross_Fraser@ama-assn.org)) and visit [www.ama-assn.org](http://www.ama-assn.org).

**Council for Affordable Quality Healthcare (CAQH).** CAQH is a nonprofit alliance of health plans and networks that promotes collaborative initiatives to help make healthcare more affordable; share knowledge to improve the quality of care; and make administration easier for physicians and their patients. Created in 1999, CAQH provides and administers health care coverage for more than 100 million Americans. Through its *Save Antibiotic Strength (SAS)* Initiative, CAQH partners with CDC and other leading community and health care organizations to help preserve and protect the effectiveness of antibiotics. SAS includes educational programs and materials for consumers, physicians, and other healthcare providers. In 2003, CAQH introduced the SAS Employer Program to help companies educate employees about the proper use of antibiotics.

Press: for more information from CAQH, contact Barbara Souder at 202-778-1145 ([barbara.souder@tufts.edu](mailto:barbara.souder@tufts.edu)) and visit [www.caqh.org](http://www.caqh.org).

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## **SPEAKER BIOS**

### **Richard Besser, MD**

Dr. Besser is medical director of the *Get Smart: Know When Antibiotics Work* campaign. He also serves as acting chief of the Meningitis and Special Pathogens Branch in the National Center for Infectious Diseases at the Centers for Disease Control and Prevention (CDC).

Dr. Besser received his bachelor of arts degree in economics from Williams College in Williamstown, Massachusetts and his medical degree from the University of Pennsylvania. He completed a residency and chief residency in Pediatrics at Johns Hopkins University Hospital in Baltimore, Maryland. He trained in epidemiology as part of the CDC's Epidemic Intelligence Service. Before joining the respiratory diseases branch, Dr. Besser was director of the combined internal medicine and pediatrics residency programs at the University of California, San Diego.

Dr. Besser has authored and/or coauthored more than 50 research papers and book chapters. During the 2001 anthrax attack he worked as CDC liaison to the FBI in Florida and on the investigative team in Washington, DC.

### **Peter J. Pitts**

Mr. Pitts is the U.S. Food and Drug Administration's associate commissioner for External Relations. An author and expert in strategic communications and marketing, he most recently served as a managing partner of Wired World, a firm specializing in solving marketing problems, generating strategic ideas, and stimulating growth. Mr. Pitts is the senior communications adviser to FDA Commissioner Mark B. McClellan and provides executive-level policy and program direction for FDA's interactions, information exchanges, and liaison activities with the agency's stakeholders and other external audiences. He supervises FDA's Office of Public Affairs, Office of the Ombudsman, Office of Special Health Issues, Office of Executive Secretariat, and Advisory Committee Oversight and Management Staff.

Mr. Pitts' previous posts include vice president of Marketing and Communications at Hudson Institute, director of marketing for the *Washington Times* and *Insight Magazine*, director of marketing at the *New York Post*, creative services director at *McCall's* magazine, assistant creative director at *Reader's Digest*, and marketing manager for Cable Health Network. His most recent book, *Become Strategic or Die*, is a study of successful leadership based on strategic vision and ethical practice.

A graduate of McGill University, in 1998 Mr. Pitts was selected one of Indianapolis' 40 Under 40 by the Indianapolis Business Journal.

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### **Michael Fleming, MD**

Dr. Fleming, a family physician in Shreveport, La., is president-elect of the American Academy of Family Physicians' (AAFP). AAFP's governing body, the Congress of Delegates, elected him to this position during the organization's October 2002 annual meeting. Previously, Dr. Fleming served for three years as speaker of the Congress of Delegates. AAFP represents more than 94,300 physicians and medical students nationwide.

In the private practice of family medicine, Dr. Fleming is managing senior partner for The Family Doctors in Shreveport, a group practice of ten family physicians. He also is assistant clinical professor in the Department of Family Medicine at the Louisiana State University Health Science Center and in the Department of Family and Community Medicine at Tulane University Medical School.

Active on numerous committees for AAFP, Dr. Fleming addresses issues in the areas of health education, finance and insurance, governance, and member participation. He previously served as AAFP's vice speaker and is a former chair of the Task Force on AAFP/Chapter Relations and the Committee on Public Relations and Marketing.

Dr. Fleming is a past president of the Louisiana Academy of Family Physicians, a constituent chapter of AAFP. He also is past chair of the Board of Directors for the Louisiana Academy of Family Physicians Foundation, the charitable arm of the organization. Dr. Fleming was honored as Louisiana Family Doctor of the Year in 1996.

### **Margaret B. Rennels, MD, FAAP**

Dr. Rennels, has been a member of the American Academy of Pediatrics Committee on Infectious Diseases since 1999 and is currently serving as Chair of the Committee. She is professor of pediatrics, clinical head of the Division of Infectious Diseases and Tropical Pediatrics, and chief of the pediatric clinical studies section of the Center for Vaccine Development at the University of Maryland School of Medicine in Baltimore.

Dr. Rennels has been involved in the clinical development of pediatric vaccines. Her current major interests are conjugate pneumococcal, conjugate meningococcal, and combination vaccines. She has served as principal investigator for more than 30 clinical trials of vaccines; written numerous articles and book chapters; and lectured widely on pediatric infectious diseases and immunization.

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# Sniffle or Sneeze?

## No Antibiotics Please

*CDC advises parents about colds, flu and antibiotics*

The Centers for Disease Control and Prevention (CDC) has news for parents this cold and flu season: antibiotics don't work for a cold or the flu.

Antibiotics kill bacteria, not viruses. And colds, flu and most sore throats are caused by viruses. Antibiotics don't touch viruses — never have, never will. And it's not really news. It's a long-documented medical fact.

But tell that to parents seeking relief for a child's runny nose. Recent research shows that most Americans have either missed the message about appropriate antibiotic use or they simply don't believe it. It's a case of mistaken popular belief winning out over fact. According to recent public opinion research, there is a perception that "antibiotics cure everything."

Americans believe in the power of antibiotics so much that many patients go to the doctor expecting to get a prescription. And they do. Why? Physicians often are too pressured for time to engage in lengthy explanations of why antibiotics won't work. And, when the diagnosis is uncertain — as many symptoms for viral and bacterial infections are similar — doctors are more likely to yield to patient demands for antibiotics.

### Risk of antibiotic-resistance

The problem is, taking antibiotics when they are not needed can do more harm than good. Widespread inappropriate use of antibiotics is fueling an increase in drug-resistant bacteria. And sick individuals aren't the only people who can suffer the consequences. Families and entire communities feel the impact when disease-causing germs become resistant to antibiotics.

The most obvious consequence of inappropriate antibiotic use is its effect on the sick patient. When antibiotics are incorrectly used to treat children or adults with viral infections, such as colds and flu, they aren't getting the best care for their condition. A course of antibiotics won't fight the virus, make the patient feel better, yield a quicker recovery or keep others from getting sick.

A less obvious consequence of antibiotic overuse is the boost it gives to



### What to do for colds and flu

- Children and adults with viral infections recover when the illness has run its course. Colds caused by viruses may last for two weeks or longer.
- Measures that can help a person with a cold or flu feel better:
  - Increase fluid intake
  - Use a cool mist vaporizer or saline nasal spray to relieve congestion
  - Soothe throat with ice chips, sore throat spray or lozenges (for older children and adults)
- Viral infections may sometimes lead to bacterial infections. Patients should keep their doctor informed if their illness gets worse or lasts a long time.

drug-resistant disease-causing bacteria. Over the last decade, almost every type of bacteria has become stronger and less responsive to antibiotic treatment when it really is needed. These antibiotic-resistant bacteria can quickly spread to family members, school mates and co-workers — threatening the community with a new strain of infectious disease that is more difficult to cure and more expensive to treat.

According to the CDC, antibiotic resistance is one of the world's most pressing public health problems. Americans of all ages can lower this risk by talking to their doctors and using antibiotics appropriately during this cold and flu season.



## **Get Smart: Know When to Use Antibiotics**

### ***Unnecessary Antibiotics Can Be Harmful to Your Child***

#### **A Prescription for Parents: Five Hints to Understanding Antibiotic Usage**

When are antibiotics necessary? Your doctor can best answer this complicated question and the answer depends on the diagnosis. Here are a few examples:

1. **Ear infections:** There are several types; many need antibiotics, but some do not.
2. **Sinus infections:** Most children with thick or green mucus do not have sinus infections. Antibiotics are needed for some long-lasting or severe cases.
3. **Cough or bronchitis:** Children rarely need antibiotics for bronchitis.
4. **Sore throat:** Viruses cause most cases. Only one major kind, "strep throat," requires antibiotics. This condition must be diagnosed by a laboratory test.
5. **Colds:** Colds are caused by viruses and may last for two weeks or longer. Antibiotics have no effect on colds, but your doctor may have suggestions for obtaining comfort while the illness runs its course.

It is worth noting that viral infections sometimes lead to bacterial infections. But treating viral infections with antibiotics will not prevent bacterial infections and may trigger infections with resistant bacteria. Keep your doctor informed if the illness gets worse, or lasts a long time, so that the proper treatment can be given as needed.

#### **Commonly Asked Questions**

1. **What can I do to protect my child from antibiotic resistant bacteria?**  
Use antibiotics only when your doctor has determined that they are likely to be effective. Antibiotics will not cure most colds, coughs, sore throats, or runny noses. Children fight off colds on their own.
2. **If mucus from the nose changes from clear to yellow or green, does this mean that my child needs an antibiotic?**  
Yellow or green mucus does not mean that your child has a bacterial infection. It is normal for the mucus to get thick and change color during a viral cold.
3. **Does this mean I should never give my child antibiotics?**  
Antibiotics are very powerful medicines and should only be used to treat bacterial infections. If an antibiotic is prescribed, make sure you take the entire course and never save the medication for later use.



4. **How do I know if my child has a viral or bacterial infection?**

Ask your doctor. If you think that your child might need treatment, you should contact your doctor. But remember, colds are caused by viruses and should not be treated with antibiotics.

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For more information, please visit [www.cdc.gov/getsmart](http://www.cdc.gov/getsmart)



## **COLD AND FLU: CONSUMER FAQs**

### ***What are bacteria and viruses?***

Bacteria are single-celled organisms usually found all over the inside and outside of our bodies, except in the blood and spinal fluid. Many bacteria are not harmful. In fact, some are actually beneficial. However, disease-causing bacteria trigger illnesses, such as strep throat and some ear infections.

Viruses are even smaller than bacteria. A virus cannot survive outside the body's cells. It causes illnesses by invading healthy cells and reproducing.

### ***What kinds of infections are caused by viruses and should not be treated with antibiotics?***

- Colds
- Flu
- Most coughs and bronchitis
- Sore throats (except for those resulting from strep throat)

### ***How do I know when an illness is caused by a viral or bacterial infection?***

Sometimes it is very hard to tell. Consult with your doctor to be sure.

### ***When do I need to take antibiotics?***

Antibiotics are very powerful medications. They should only be used when prescribed by a doctor to treat bacterial infections.

### ***Do I need an antibiotic when mucus from the nose changes to yellow or green?***

Yellow or green mucus does not indicate a bacterial infection. It is normal for the mucus to get thick and change color during a viral cold.

### ***Should I ask my doctor to prescribe antibiotics?***

Talk to your doctor about the best treatment. You should not expect to get a prescription for antibiotics. If you have a viral infection, antibiotics will not cure it, help you feel better, or prevent someone else from getting your virus.

### ***What is antibiotic resistance and why should I be concerned?***

Antibiotic resistance occurs when bacteria change in a way that reduces or eliminates the effectiveness of antibiotics. These resistant bacteria survive and multiply — causing more harm, such as a longer illness, more doctor visits, and a need for more expensive and toxic antibiotics. Resistant bacteria may even cause death.

### ***What can I do to avoid antibiotic-resistant infections?***

- Start by talking with your health care provider about antibiotic resistance.
  - Ask whether an antibiotic is likely to be effective in treating your illness.
  - Do not demand an antibiotic when your health care provider determines one is not appropriate.

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- Ask what else you can do to help relieve your symptoms.
- Do not take an antibiotic for a viral infection like a cold, a cough or the flu.
- Take an antibiotic exactly as the doctor tells you. Do not skip doses. Complete the prescribed course of treatment, even if you are feeling better.
- Do not save any antibiotics for the next time you get sick. Discard any leftover medication once you have completed your prescribed course of treatment.
- Do not take antibiotics prescribed for someone else. The antibiotic may not be appropriate for your illness. Taking the wrong medicine may delay correct treatment and allow bacteria to multiply.

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## **COLD AND FLU SEASON: NO REASON FOR ANTIBIOTICS**

Colds, flu, and most sore throats and bronchitis are caused by viruses. Antibiotics do not help fight viruses. And they may do more harm than good: taking antibiotics when they are not needed — and cannot treat the illness — increases the risk of a resistant infection later.

### **Antibiotics Are Not for Colds and Flu**

- Most infections are caused by two main types of germs — bacteria and viruses.
  - Bacteria are organisms found almost anywhere, except normally sterile sites, such as the blood stream and spinal fluid. A few bacteria, known as pathogens, can cause diseases in humans, animals, and plants.
  - Viruses are organisms that cause disease by invading healthy host cells. As virus particles multiply, the host cells burst, allowing the viruses to infect other cells.
- Antibiotics kill bacteria, not viruses.
- Antibiotics will not cure upper respiratory viral illnesses, such as:
  - Colds or flu
  - Most coughs and bronchitis
  - Sore throats not caused by strep
  - Runny noses
- Tens of millions of antibiotics prescribed in doctor's offices each year are for viral infections, which cannot effectively be treated with antibiotics. Doctors cite diagnostic uncertainty, time pressure on physicians, and patient demand as the primary reasons why antibiotics are over-prescribed.
- Taking antibiotics for viral infections — such as a cold, cough, the flu and most bronchitis — will **not**:
  - Cure the infections
  - Keep other individuals from catching the illness
  - Help a person feel better
- Taking antibiotics for viral infections will increase the risk of antibiotic resistance.
- The spread of viral infections can be reduced through frequent hand washing and by avoiding close contact with others.

### **What To Do For Colds And Flu**

- Children and adults with viral infections recover when the illness has run its course. Colds caused by viruses may last for two weeks or longer.

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- Measures that can help a person with a cold or flu feel better:
  - Increase fluid intake
  - Use a cool mist vaporizer or saline nasal spray to relieve congestion
  - Soothe throat with ice chips, sore throat spray, or lozenges (for older children and adults)
- Viral infections sometimes lead to bacterial infections. Patients should keep their doctor informed if their illness gets worse or lasts a long time.

### **About Antibiotic Resistance**

- Antibiotic resistance has been called one of the world's most pressing public health problems.
- The number of bacteria resistant to antibiotics has increased in the last decade. Nearly all significant bacterial infections in the world are becoming resistant to the most commonly prescribed antibiotic treatments.
- Every time a person takes antibiotics, sensitive bacteria are killed, but resistant germs may be left to grow and multiply. Repeated and improper uses of antibiotics are primary causes of the increase in drug-resistant bacteria.
- Misuse of antibiotics jeopardizes the usefulness of essential drugs. Decreasing inappropriate antibiotic use is the best way to control resistance.
- Children are of particular concern because they have the highest rates of antibiotic use. They also have the highest rate of infections caused by antibiotic-resistant pathogens.
- Parent pressure makes a difference. For pediatric care, a recent study showed that doctors prescribe antibiotics 65 percent of the time if they perceive parents expect them; and 12 percent of the time if they feel parents do not expect them.
- Antibiotic resistance can cause significant danger and suffering for people who have common infections that once were easily treatable with antibiotics. When antibiotics fail to work, the consequences are longer-lasting illnesses; more doctor visits or extended hospital stays; and the need for more expensive and toxic medications. Some resistant infections can cause death.

### **Reducing Antibiotic Use**

- Antibiotic prescriptions in outpatient settings can be reduced dramatically — without adversely affecting patient health — by not prescribing antibiotics for viral illnesses, such as colds, most sore throats, coughs, bronchitis, and the flu.
- Parents should not demand antibiotics when a health care provider has determined they are not needed.

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- Parents should talk with their health care provider about antibiotic resistance.
- Parents should not give their children antibiotics for a viral infection like a cold, a cough, or the flu. Antibiotics should be used only to treat bacterial infections.
- Parents should ensure that their children take all medication as prescribed, even if symptoms disappear. If treatment stops too soon, some bacteria may survive and re-infect.  
# # #

*Centers for Disease Control and Prevention has begun a multi-faceted national campaign to promote appropriate antibiotic use for respiratory tract infections in the U.S. It aims to decrease inappropriate use and thereby reduce the threat of antibiotic resistance. Appropriate antibiotic use is defined as the prescription of antibiotic therapy only when it is likely to benefit a patient by treating a bacteria-related illness.*



# GET SMART



## Know When Antibiotics Work

**Get Smart.** Take a look at this chart to find out which upper respiratory infections are usually caused by viruses — germs that are not killed by antibiotics. Talk with your doctor about ways to feel better when you are sick. Ask what you should look for at home that might mean you are developing another infection for which antibiotics might be appropriate.

Illness	Usual Cause		Antibiotic Needed
	Virus	Bacteria	
Cold	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No
Flu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No
Chest Cold (in otherwise healthy children and adults)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No
Sore Throats (except strep)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No
Bronchitis (in otherwise healthy children and adults)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No
Runny Nose (with green or yellow mucus)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No
Fluid in the Middle Ear (otitis media with effusion)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No





## FLUID IN THE MIDDLE EAR: TIPS FOR PARENTS

A doctor said your child has fluid in the middle ear, also called otitis (oh-TIE-Tus) media with effusion (uh-FEW-zhun) (OME). Fluid usually does not bother children, and it almost always goes away on its own. This does not have to be treated with antibiotics, unless it lasts for a few months. Here are some facts about OME and ear infections.

### ***What are the main kinds of ear infections?***

- Swimmers's ear (otitis externa) is an infection of the ear canal that can be painful and is treated with eardrops.
- A middle ear infection, which a doctor might call "acute otitis media" (AOM) may cause ear pain, fever, or an inflamed eardrum, and is often treated with oral antibiotics.

### ***What causes OME?***

Fluid may build up in the middle ear for two reasons. When a child has a cold, the middle ear makes fluid just as the nose does – it just doesn't run out as easily from the middle ear. After a middle ear infection, fluid may take a month or longer to go away.

### ***Are antibiotics ever needed for OME?***

Sometimes antibiotics may be needed if the fluid is still present after a few months and is causing decreased hearing in both ears. For this reason, your child will need an ear check in a few months. If there is still fluid in the middle ear, your child may need a hearing test.

### ***What should I do?***

- The best treatment is to wait and watch your child. Since fluid in the middle ear rarely bothers children, it is best to let it go away on its own. Right now, your child does not need antibiotics.
- You may need to schedule a visit to see the doctor again in the few months to be sure the fluid is gone.

### ***Why not try antibiotics now?***

Taking antibiotics when they are not needed can be harmful. Each time someone takes antibiotics, they are more likely to carry resistant germs in their noses and throats. Common antibiotics cannot kill these resistant germs. Your child may need antibiotics that are more costly, given by a needle, and/or administered in the hospital. Since OME will almost always get better on its own, it is better to wait and take antibiotics only when they are needed.

For more information, call 1-888-246-2675 or visit [www.cdc.gov/getsmart](http://www.cdc.gov/getsmart).

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## A CHILD'S RUNNY NOSE: TIPS FOR PARENTS

Your child has a runny nose. This is a normal part of what happens during the common cold and as it gets better. Here are some facts about colds and runny noses.

### ***What causes a runny nose during a cold?***

When germs that cause colds first infect the nose and sinuses, the nose makes clear mucus. This helps wash the germs from the nose and sinuses. After two or three days, the body's immune cells fight back, changing the mucus to a white or yellow color. As the bacteria that live in the nose grow back, they may also be found in the mucus, which changes the mucus to a greenish color. This is normal and does not mean your child needs an antibiotic.

### ***What should I do?***

- The best treatment is to wait and watch your child. Runny nose, cough, and symptoms like fever, headache, and muscle aches may be bothersome, but antibiotics will not make them go away any faster.
- Some people find that using a cool mist vaporizer or saltwater nose drops makes their child feel better.

### ***Are antibiotics ever needed for a runny nose?***

Antibiotics are needed only if your doctor tells you that your child has sinusitis. Your child's doctor may prescribe other medicine or give you tips to help with a cold's other symptoms like fever and cough, but antibiotics are not needed to treat the runny nose.

### ***Why not try antibiotics now?***

Taking antibiotics when they are not needed can be harmful. Each time someone takes antibiotics, they are more likely to carry resistant germs in their noses and throats. Common antibiotics cannot kill these resistant germs. Your child may need antibiotics that are more costly, given by a needle, and/or administered in the hospital. Since a runny nose almost always gets better on its own, it is better to wait and take antibiotics only when they are needed.

For more information, call 1-888-246-2675 or visit [www.cdc.gov/getsmart](http://www.cdc.gov/getsmart).

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# Snort. Sniffle. Sneeze. No Antibiotics Please.

**Treat colds and flu with care.  
Talk to your doctor.**

As a parent, you want to help your child feel better. But antibiotics aren't always the answer. They don't fight the viruses that cause colds and flu. What will? Fluids and plenty of rest are best. Talk to your doctor. Find out when antibiotics work – and when they don't. The best care is the right care.

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