

Get Smart: Know When Antibiotics Work

[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC — safer, healthier people.

[Darcia Johnson] Consider the role antibiotics have played in your life. Reflect back on a time you or your child was last prescribed an antibiotic. Think about the times you assumed an antibiotic would cure an illness. Now, imagine your world without antibiotics.

Hi. I'm Darcia Johnson with the CDC. With me today is Dr. Lauri Hicks, Medical Director of the CDC campaign *Get Smart: Know When Antibiotics Work*. She's here to talk with us about antibiotics, antibiotic resistance, and the importance of appropriately using antibiotics. Welcome, Dr. Hicks.

[Dr. Hicks] Thank you for having me, Darcia.

[Darcia Johnson] Dr. Hicks, first, tell us about antibiotic resistance and why it matters?

[Dr. Hicks] Well, antibiotic resistance is one of the world's most serious public health threats. Antibiotic resistance means that an antibiotic may no longer fight an infection. This is really dangerous because, if some infections aren't stopped by antibiotics, they can lead to severe or prolonged illness, hospitalization, and even in some cases, death. In the past 20 or so years, resistant bacteria have become more and more common. Antibiotic-resistant bacteria can spread to family members, school mates and co-workers - threatening your community with infectious diseases that are difficult to cure and expensive to treat.

[Darcia Johnson] Is this a common problem?

[Dr. Hicks] Many people have recently become familiar with MRSA, which stands for methicillin-resistant *Staphylococcus aureus*. MRSA is really dangerous because it's resistant to certain antibiotics and can cause serious infections of the skin, lungs, and bloodstream. MRSA has become more common in the community, causing infections in otherwise healthy people and is just one of many examples of the bacteria that are becoming resistant to antibiotics.

[Darcia Johnson] My sense is that the public is aware that antibiotic use has its pros and cons. In fact, CDC has received a number of emails about this topic. Would you answer a few?

[Dr. Hicks] Of course

[Darcia Johnson] Jennifer asks, "What is the down side to taking antibiotics for a virus, if any? Is it dangerous?"

[Dr. Hicks] Well, bacterial infections can be cured by antibiotics, but viral infections cannot and they are very powerful medications that can have side effects. Every time a person takes an antibiotic, bacteria that normally live in our bodies are killed, but resistant germs may be left to grow and multiply. Repeated use of antibiotics can lead to an increase in dangerous bacteria that

are difficult to treat. These are often referred to by the media as ‘Superbugs’. MRSA is just one example.

[Darcia Johnson] Sean writes “I have a sinus infection, but my doctor didn’t prescribe an antibiotic. How do I know if I need an antibiotic?”

[Dr. Hicks] Many respiratory infections, such as sinusitis, otherwise known as sinus infections, bronchitis, and colds are caused by viruses and viruses don’t respond to antibiotic therapy. In fact, only about 2 percent of sinus infections are actually caused by a bacteria. To feel better when you have an upper respiratory infection:

- Increase your fluid intake;
- Make sure to get plenty of rest;
- Consider using a cool mist vaporizer or saline nasal spray to relieve congestion; and
- Soothe throat pain with ice chips, sore throat spray, or lozenges -- but remember; don’t give lozenges to young children.

And if your sinus infection isn’t improving, you need to return to your healthcare provider. Your provider will decide if and when an antibiotic is needed.

[Darcia Johnson] Dr. Hicks, I’ve heard that when mucus turns green it’s a sign of a bacterial infection? Is that true?

[Dr. Hicks] That’s a common misconception. No, green mucus doesn’t necessarily mean that you have a bacterial infection. When germs that cause colds first infect the nose and sinuses, the nose makes clear mucus. This helps wash the germs out. After about two or three days, the body’s immune cells fight back, changing the mucus to white or yellow. As the bacteria that normally live in the nose grow back, the mucus changes to a greenish color. This is actually normal and doesn’t mean you need antibiotics.

[Darcia Johnson] Well in another email Marie asks, “My daughter was given a 7-day antibiotic prescription. She started feeling better after the second day and felt completely fine by the third day. Why was I told to make sure she finishes the entire prescription?”

[Dr. Hicks] Simply stated, it’s important to kill all of the bacteria causing the infection. To make sure no bad bacteria remain, the entire course of antibiotic treatment must be completed, even if your daughter is feeling better. Repeated and improper use of antibiotics contributes to the increase in drug-resistant bacteria. Have your daughter take the antibiotics exactly as your provider tells you to. The choice of antibiotic, dose, and duration of treatment is based on the type of infection. Complete the prescribed course of treatment, even if you’re feeling better.

[Darcia Johnson] Dr. Hicks, where can listeners get more information about antibiotics, antibiotic resistance, and the appropriate use of antibiotics?

[Dr. Hicks] Well, I’m glad you asked. CDC has a campaign to promote appropriate antibiotic use in the community called *Get Smart: Know When Antibiotics Work*. There are a lot of resources for parents, and some for providers as well, on our website at www.cdc.gov/getsmart.

[Darcia Johnson] Dr. Hicks, thanks for sharing this information with our listeners today.

[Dr. Hicks] Thanks so much for having me.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO, 24/7.