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| **The Danger of Antibiotic Overuse**  Every year, your family probably faces its share of colds, sore throats, and viruses. When you bring your child to the doctor for these illnesses, do you automatically expect a prescription for antibiotics?  Many parents do. And they're surprised, maybe even angry, if they leave the doctor's office empty-handed — after all, what parent doesn't want their kid to get well as quickly as possible? But your doctor could be doing you and your child a favor by not reaching for the prescription pad.  **How Antibiotics Work**  Antibiotics, first used in the 1940s, are certainly one of the great advances in medicine. But overprescribing them has resulted in the development of **resistant bacteria**, that don't respond to antibiotics that may have worked in the past. Plus, whenever kids take antibiotics they run the risk of side-effects, such as stomach upset and diarrhea or even an allergic reaction.  To understand how antibiotics work, it helps to know about the two major types of germs that can make people sick: **bacteria** and **viruses**. Although certain bacteria and viruses cause diseases with similar symptoms, the ways these two organisms multiply and spread illness are different:   * **Bacteria** are *living* organisms existing as single cells. Bacteria are everywhere and most don't cause any harm, and in some cases may be beneficial. Lactobacillus, for example, lives in the intestine and helps digest food.  But some bacteria are harmful and can cause illness by invading the human body, multiplying, and interfering with normal bodily processes. Antibiotics are effective against bacteria because they work to kill these living organisms by stopping their growth and reproduction. * **Viruses**, on the other hand, are *not* alive and cannot exist on their own — they are particles containing genetic material wrapped in a protein coat. Viruses grow and reproduce only after they've invaded other living cells.  The body's immune system can fight off some viruses before they cause illness, but others (colds, for example) must simply run their course. Antibiotics do not work against viruses.   **Why It's Harmful to Overuse Them**  Taking antibiotics for colds and other viral illnesses not only won't work, but it can also have dangerous side effects — over time, this practice actually helps create bacteria that are harder to kill.  Frequent and inappropriate use of antibiotics can cause bacteria or other microbes to change so antibiotics don’t work against them. This is called bacterial resistance or antibiotic resistance. Treating these resistant bacteria requires higher doses of medicine or stronger antibiotics. Because of antibiotic overuse, certain bacteria have become resistant to even the most powerful antibiotics available today.  Antibiotic resistance is a widespread problem, and one that the Centers for Disease Control and Prevention (CDC) calls "one of the world's most pressing public health problems." Bacteria that were once highly responsive to antibiotics have become more and more resistant. Among those that are becoming harder to treat are pneumococcal infections (which cause pneumonia, ear infections, sinus infections, and meningitis), skin infections, and tuberculosis.  In addition to antibiotic resistance, overusing antibiotics can lead to other problems. Antibiotics kill many different bacteria, even the good ones that help keep the body healthy. Sometimes taking antibiotics can cause a person to develop diarrhea due to a lack of good bacteria that help digest food properly. In some cases, bad bacteria, like *Clostridium difficile* (or *C diff*), may overgrow and cause infections.  **Taking Antibiotics Safely**  So what should you do when your child gets sick? To minimize the risk of bacterial resistance, keep these tips in mind:   * **Take antibiotics only for bacterial infections.** It's a good idea to let milder illnesses (especially those thought to be caused by viruses) run their course. This helps prevent antibiotic-resistant germs from developing. But leave it to your doctor to decide if an illness is "mild" or not. Even if the symptoms don't get worse but do last a while, take your child to the doctor. * **Seek advice and ask questions.** Ask your doctor about whether your child's illness is bacterial or viral, and discuss the risks and benefits of antibiotics. If it's a virus, ask about ways to treat symptoms. Don't pressure your doctor to prescribe antibiotics.   Ask your doctor about ways to treat the symptoms that are making your child uncomfortable, such as a stuffy nose or scratchy throat. The key to building a good relationship with your doctor is open communication, so work together toward that goal.  Remember: Antibiotics can only treat bacterial infection if taken for the full amount of time prescribed by the doctor Talk to your pharmacist if you're unsure about how to give your child the right dose. The medicines take time to work, too, so don't expect your child to feel better after taking the first dose. It may take a child 1 to 2 days to feel better. Similarly, don't let your child take antibiotics longer than prescribed.  And most important, never use antibiotics that have been lying around your home. And never give your child antibiotics that were prescribed for another family member or adult. Saving antibiotics "for the next time" is a bad idea, too. Any remaining antibiotics should be thrown out as soon as your child has taken the full course of medicine as prescribed.  Help fight antibiotic resistance by taking simple steps to prevent the spread of infections. Encourage hand washing, make sure your kids are up to date on immunizations, and keep kids out of school when they're sick.  Reviewed by: Elana Pearl Ben-Joseph, MD Date reviewed: September 2015 |  |
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