

Antibiotics are some of the most commonly prescribed medicines and subsequently one of the most varied in terms of type and usage

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- Tami Stout, M.D.

A Katy Parent's Guide to ANTIBIOTICS

The ABCs and 123s of when, why, and how often to use antibiotics

Written by Julie Estep and Kirsten Cornell

Since the accidental discovery of penicillin 85 years ago, antibiotics have saved many lives and prevented a multitude of serious complications. Katy doctors and parents help sort through the vast world of antibiotics to bring you the best advice on how to keep your family safe and healthy.

Types of Antibiotics

It is important to remember that antibiotics were designed for the treatment of bacterial infections. "Bacterial infections are a bit more complex [than viral] and require close evaluation and monitoring by a physician," says Behrooz Saffari, M.D. of UT Physicians at Cinco Ranch.

The primary antibiotic groups you will encounter include penicillins, cephalosporins, fluoroquinolones, tetracyclines, and macrolides. Each with varying chemical make-ups, these medicines absorb into the body differently and destroy bacteria in different ways. "Some antibiotics are broad spectrum, meaning they can fight off a variety of different types of bacteria, while others are more specific to the type of bacteria they fight," explains Tami Stout, M.D. with Family Physicians of Katy.

Know the Side Effects

Mild to extreme side effects can occur and vary according to age and body condition. "Of course, there is always a potential for a serious life-threatening drug reaction to any medication, including antibiotics," says Dr. Saffari. "Fortunately, most side effects are non-life-threatening and include, but are not limited to, nausea, vomiting, diarrhea, and other mild symptoms."

Different antibiotics can also pose varying levels of risks to pregnant women. For example, penicillins are classified as a category B, which has demonstrated no risk to a fetus in any trimester, whereas aminoglycosides are rated a category D, which has evidence of fetal risk based on adverse reactions.

Three-year-old Liam Carpenter has been prescribed Cefdinir, which can give patients mild diarrhea, for ear infections and Amoxil, which caused a mild rash on his torso, for an upper respiratory infection. "We've talked to several parents who recommend giving probiotics such as Culterelle to kids along with antibiotics to help them with any digestive issues that may occur," advises his mother Ana.

Matt and Kristin Gvist have seen their children Madison, 12, and Grant, 10, suffer even fewer side effects with antibiotics. "Our experience with amoxicillin for strep throat was great," says Kristin. "Once the kids had been on the medication for a few days, they were on the road to recovery."

Choose Carefully

Individuals should be aware of what type of antibiotic they are using and how it can affect any current health issue. Children under the age of 8 should not use tetracyclines especially during tooth development as they attach to calcium and iron in the body. People using aminoglycosides regularly should have periodic testing on both kidney function and hearing.

Use of all antibiotics may temporarily reduce the effectiveness of birth control pills and alternative birth control methods should be used while taking these medications. Antacids should be avoided while on tetracyclines as the calcium can impair absorption of this antibiotic class. For this reason, tetracyclines should not be taken just before or after consuming foods rich in calcium or iron.

For the least amount of associated risks, physicians recommend penicillin- and cephalosporin-based medicines. People can become resistant to antibiotics when the bacteria in their bodies changes in a way that decreases or eliminates the medication's ability to treat the infection. To avoid resistance, be sure to take antibiotics in the exact dosage and duration as prescribed. "If medications aren't finished and the

Did you know?

- The use of antibiotics reduces the effectiveness of birth control pills.
- Antibiotics are available as tablets, capsules, liquids, or chewables.
- Antibiotics are among the most common medicines prescribed to children.

bacteria aren't completely killed off, the remaining bacteria can mutate and develop into a strain that is resistant to the antibiotics," says Dr. Stout.

Another way to prevent resistance is to avoid taking antibiotics when they are not needed. "With the rising cost of healthcare, patients feel that if they spend the money to see a doctor, they should get something in return - specifically, they want to leave [my office] with an antibiotic," Dr. Stout says. "Or they need to return to work or school quickly, and they want a quick fix and feel that antibiotics are the answer."

The most important thing to remember is to administer all medications, not just antibiotics, in the manner for which they were intended by healthcare professionals. Consult specialized references for additional interactions to specific antibiotics. **KM**

JULIE ESTEP was raised in Katy and graduated from University of Texas. She enjoys traveling internationally and hopes to someday publish a novel.

KIRSTEN CORNELL enjoys being an associate editor for Katy Magazine and appreciates the knowledge she gained from this feature.

The ABCs of Antibiotics

Tips from the Experts



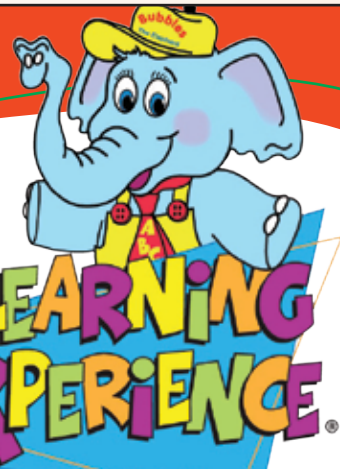
- A.** Alert your pediatrician of any allergies.
- B.** Be sure to dispose of any unused medicines.
- C.** Crosscheck the dosage on the prescription to make sure it matches physicians' instructions.
- D.** Don't share antibiotics with other family members.
- E.** Every child reacts differently so watch for side effects.

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