

Are You Taking Medication as Prescribed?

Medication adherence, or taking medications correctly, is generally defined as the extent to which patients take medication as prescribed by their doctors. This involves factors such as getting prescriptions filled, remembering to take medication on time, and understanding the directions.

Common barriers to medication adherence include

- the inability to pay for medications
- disbelief that the treatment is necessary or helping
- difficulty keeping up with multiple medications and complex dosing schedules
- confusion about how and when to take the medication

Poor adherence can interfere with the ability to treat many diseases, leading to greater complications from the illness and a lower quality of life for patients. Here are some examples of areas in which medication adherence can pose challenges, along with tips for taking medications correctly and talking with health care professionals about your questions and concerns.

Taking Antibiotics

If you feel better and no longer have symptoms, you may think your illness is cured. But if you have a bacterial infection, this can be a dangerous assumption.

If the full course of antibiotics is not taken, a small number of bacteria are likely to still be alive. These surviving germs are likely to have some

natural resistance to the antibiotic. As they multiply and spread, a new strain of resistant germs may begin to develop. This may be one way that Methicillin-Resistant *Staphylococcus Aureus* (MRSA) infections occur. MRSA is a type of bacteria that's resistant to certain antibiotics.

It's important to use antibiotics appropriately and to take the medication exactly as directed.

- Take all doses of the antibiotic, even if the infection is getting better.
- Don't stop taking the antibiotic unless your doctor tells you to stop.
- Don't share antibiotics with others.
- Don't save unfinished antibiotics for another time.

Taking HIV/AIDS Medications

People with HIV/AIDS can have a particularly difficult time taking medications as prescribed, according to Richard Klein, the HIV/AIDS program director for the Food and Drug Administration's (FDA) Office of Spe-



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cial Health Initiatives (OSHI).

Some of the main reasons:

- Multiple drugs may need to be taken at different times, which can be hard to remember.
- The side effects of certain drugs can sometimes make people feel worse instead of better.
- When people feel okay, they may not feel the need to take their drugs. They don't have the 'physical reminder' to take the medications.
- People may not be aware of the risks of drug resistance that can occur if they stop treatment or skip or lower doses.

When you skip doses or stop taking a prescribed medication, you may develop strains of HIV that are resistant to the medications you are taking and even to some medications you haven't taken yet. This may result in fewer treatment options should you need to change treatment regimens in the future.

FDA has given expedited reviews to several fixed dose combination medications like Atripla (a combination of efavirenz, emtricitabine and tenofovir) and Combivir (a combination of zidovudine and zalcitabine) to treat HIV. Fixed dose combination tablets contain two or more anti-HIV medications that can be from one or more drug classes.

"These fixed dose combinations are examples where the constituent drugs were already approved," says Klein, "but the agency expedited review because the combined formulations simplified dosing, and thus were likely to improve adherence." A standard drug review time is 10 months, while an expedited review of fixed dose combination tablets is generally completed within 6 months.

Tips for Consumers

Communicate with your health care professional. If medication side effects are bothering you, talk with your doctor or pharmacist about what you can do to lessen the problem. You might be able to switch to a different medication or your doctor may be able to adjust the timing of your dose. See *Tips for Talking with Your Pharmacist* www.fda.gov/Drugs/ResourcesForYou/ucm163330.htm

Make sure you understand how long to take the medication. Some questions to ask when you're prescribed a new medication are:

- Is it necessary to empty the bottle, or can I stop taking this medication once I feel better?
- Will I need to get a refill, or can I stop treatment when the bottle is empty?

Tell your doctor if paying for prescription drugs is a problem. Your doctor may be able to prescribe a generic medication or offer other suggestions to offset the cost of a drug. Generic drugs use the same active ingredients and are shown to work the same way in the body, but they can cost 30 percent to 80 percent less. Generics also have the same risks and benefits as their brand-name counterparts.

You can also shop around your neighborhood or legitimate online pharmacies for the best prices on prescription drugs. For useful information about finding a legitimate online pharmacy, see *The Possible Dangers of Buying Medicine Over the Internet* at www.fda.gov/ForConsumers/ConsumerUpdates/ucm048396.htm

You can also:


- Check to see whether you are eligible for drug assistance programs in your state.
- Check with the pharmaceutical companies that manufacture your medicines to find out whether you qualify for assistance.

Set daily routines to take medication. It can be helpful to connect taking the medication with normal, daily activities such as eating meals or going to bed. You can also keep backup supplies of your medication at your workplace or in your briefcase or purse.

Keep medications where you'll notice them. For a medication that should be taken with food, place that medication on the dinner table or TV tray, or wherever you eat on a regular basis. If there are medications you need to take in the morning, put those medications in your bathroom, next to your toothbrush or your deodorant, or something else that you use as part of your morning routine.

Use daily dosing containers. These are available at most pharmacies and allow you to keep medications in

compartments that are labeled with the days of the week and various dosage frequencies.

Keep a written or computerized schedule. This can cover the medications you take, how often you take them, and any special directions. Thanks to modern technology, there are a number of devices that have been designed to help patients adhere to a prescribed medication schedule. These include medication reminder pagers and wristwatches, automatic pill dispensers, and even voice-command medication managers. Ask your pharmacist for suggestions as to which particular devices may be helpful for you. FDA offers a form that can be printed out and used for listing all of your medications: www.fda.gov/Drugs/ResourcesForYou/ucm079489.htm 

This article appears on FDA's Consumer Updates page (www.fda.gov/ForConsumers/ConsumerUpdates/default.htm), which features the latest on all FDA-regulated products.

For More Information

Tips for Talking with Your Pharmacist
www.fda.gov/Drugs/ResourcesForYou/ucm163330.htm

6 Tips to Avoid Medication Mistakes
www.fda.gov/ForConsumers/ConsumerUpdates/ucm096403.htm

Combating Antibiotic Resistance
www.fda.gov/ForConsumers/ConsumerUpdates/ucm092810.htm

Enhancing Prescription Medication Adherence: A National Action Plan
www.talkaboutrx.org/documents/enhancing_prescription_medicine_adherence.pdf