



ADHERENCE

HOW MUCH ADHERENCE IS ENOUGH?

Adherence means taking your medications correctly. If you don't, HIV might multiply out of control. Several research studies have measured how much adherence is "enough." They found that, for the best viral load results, people had to take over 90% of their pills correctly. The 90% figure came from studies of regimens containing protease inhibitors. Recent studies suggest that adherence levels to regimens based on non-nucleoside reverse transcriptase inhibitors (NNRTIs) may be lower than 90%. However, the fewer doses you miss, the better the chances of keeping HIV under control and the lower the risk of developing viral resistance.

HOW DO AIDS DRUGS WORK?

The HIV virus can make millions of copies of itself every day. Antiretroviral drugs (ARVs) can't kill the virus, but they can almost stop it from multiplying.

A "viral load" test measures the amount of virus in your blood. If you take ARVs, the amount of virus in your blood should go down. If your viral load is very low, you probably won't develop any AIDS-related illnesses. See Fact Sheet 125 for more information on viral load.

WHAT IS RESISTANCE?

The HIV virus is sloppy when it makes copies of itself. Many new copies of HIV are slightly different from the original (mutations). Some mutations can multiply easily even though you are taking drugs that stop "normal" HIV. This is called "developing resistance" to the drugs. If your virus develops resistance, it will multiply faster and your HIV disease will probably get worse. See Fact Sheet 126 for more information on resistance.

Sometimes, when HIV becomes resistant to a drug you are taking, it will also be resistant to other ARVs – even if you haven't used them yet. This is called "cross-resistance." Many ARVs are at least partly cross-resistant. If your virus develops resistance to an ARV, you might not be able to use any other drugs of the same type. To avoid using up your treatment options, take all of your medications according to instructions.

KEEP PRESSURE ON THE VIRUS

When you take medications, they get into your blood and are carried around your body. Then your liver and kidneys start to

clean the drug out of your system, and the amount of medication in your blood goes down.

Some drugs get into your bloodstream better if there is no food in your stomach. You take these medications on an empty stomach. Other drugs get into your bloodstream better if your stomach is full. You should take these drugs with food. With some drugs, food doesn't matter.

The instructions for taking each drug tell you how many pills to take, when to take them, and how to take them, in order to keep enough medicine in your blood. If you skip a dose, reduce your dose, or don't follow the eating instructions, the drug levels in your blood will drop.

If there is not enough medicine in your blood, HIV can continue to multiply. The more HIV multiplies, the greater the chance that resistance will develop.

The best way to keep pressure on HIV is to take all the pills you're supposed to, every time you're supposed to, and follow the directions about food.

MAKE IT EASY ON YOURSELF

It can be difficult to take your medications the way you're supposed to. Make it as easy as you can!

- When you choose medications, tell your health care provider about your daily schedule so that you can use the medications that will be easiest for you to take.
- Adherence is easier when all of your medications are on the same schedule (twice a day, or once a day.)
- Make sure you understand your medications:
 - Which medications to take
 - How many pills to take, and how many times a day
 - Whether to take your pills with food, or on an empty stomach
 - How to store your pills
 - Side effects you might have, and what to do about them
- **PLAN AHEAD** for refills or trips so you don't run out of any medications. Also, be sure you know what's going to happen if you change medical insurance plans.
- Use a pillbox and count your pills out ahead of time. Some boxes hold enough for a week or two.
- Set a timer or alarm to go off when you have to take pills.

- Choose a regular daily activity to help you remember to take pills:
 - Making your morning coffee
 - Getting out of bed
 - A favorite TV show
 - Coming home from work
- Make sure your family members know how important it is for you to take your pills. Ask them to help you remember.

You might have problems with side effects, or it might be difficult to take your pills as prescribed. **Don't cut back or stop taking your medications until you have talked to your health care provider.** You might be able to change your medications and get some that are easier for you to take.

PILL FATIGUE

Several research studies showed adherence declining over time. This happened even to people who took their medications very successfully. This is called "pill fatigue" or "treatment fatigue." However, a recent large study showed very high adherence that actually increased over time.

Good adherence is not a one-time event. It has to continue as long as you are taking medications. Anyone taking anti-HIV medications may need help to keep taking their pills correctly.

THE BOTTOM LINE

In order for your medications to work, you need to take them according to the instructions. If you don't, your virus might develop resistance to drugs you are taking. If your virus becomes resistant to one drug, it might also be resistant to other ARVs. For the best results you have to take over 90% of your pills correctly.

Be sure that you understand which medications your health care provider has prescribed. Make sure you know how many to take, when to take them, and whether you need to take them with food or when your stomach is empty.

Work with your health care provider to make it as easy as possible to take your medications. Use whatever you need to keep on your medication program: pillboxes, timers, friends, or support groups. Be sure to talk with your health care provider **before** you make any changes in your medications or how you take them.

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