3.3 HIV Treatment

What is ART?

There is no cure for HIV infection—at least, not yet. However, there are medications for treating HIV, called antiretroviral drugs. When used properly, these medications can all but stop HIV from replicating, allowing your immune system to retain (or rebuild) its strength and keep you healthy.

HIV treatment means taking an appropriate combination of antiretroviral drugs—usually at least three. These drug combinations go by the fancy names ART (antiretroviral therapy) or HAART (highly active antiretroviral therapy), but you can call it whatever you like—your meds, your combo, whatever works for you. We’re going with the term antiretroviral drugs in this guide because sometimes we like to be just a bit fancy.

Since 1989—the year I was diagnosed with HIV—I’ve taken it upon myself to learn about biological sciences and medicine through the lens of HIV disease. Even if I sometimes end up slogging through science I quite frankly don’t understand, learning all that I can about HIV disease has still given me a sense of power and control over my own healthcare.

—Wayne

What do antiretroviral drugs do?

As long as HIV is left untreated, it continues to infect CD4 cells and other types of cells inside your body. It uses these cells to make millions of copies of itself, which then infect other cells, and so on. This process, called viral replication, eventually damages your immune system, lowers your CD4 count and leaves you vulnerable to serious diseases.

The goal of antiretroviral drugs is to block this replication process. How do they do this? There are several different groups, or classes, of drugs. Each class of drugs attacks the virus in a different way. In the appendices, we talk at length about each of the antiretroviral drug classes, the specific drugs in each class, and how each one works to stop the virus. Generally, drug combinations include drugs from different classes, so as to fight the virus in several different ways.

Viral replication slows down dramatically soon after you begin taking antiretroviral drugs. Essentially, the “assembly line” for building new virus slows to a crawl and very little new virus gets produced from that point onward. Since very few viruses are now being created, the overall amount of HIV in your body—your viral load—gradually drops. Most people’s viral loads fall to undetectable levels within several months of starting treatment.

“Suppressing” HIV in this way allows your immune system to rebuild itself and become stronger. Your CD4 count should rise, the risk of serious infections should drop, and many of the other symptoms of HIV infection should diminish or disappear. Your immune system will also “calm down” because it is no longer constantly fighting HIV—we’re beginning to realize all the health benefits this can have (see When to Start).

Remember, though: there is still no cure for HIV infection, and an “undetectable” viral load in the blood does not mean that the virus is gone. When a person first becomes infected with HIV, the virus quickly finds its way inside
long-lived cells deep inside the immune system and certain organs such as the brain. Antiretroviral drugs sometimes have difficulty penetrating the brain and some other organs, and HIV can replicate there at very low levels. Despite scientists’ best efforts, they have not yet found a way to eliminate this “reservoir” of stored virus. This means that, at present, HIV is a lifelong infection and HIV treatment is a lifelong commitment.

Do I have to take antiretroviral drugs at all?

Most people with HIV probably wonder: Do I have to take antiretroviral drugs at all? The short answer is yes. To put it bluntly, HIV can kill you if it’s left untreated. We sometimes overlook the basic fact that antiretroviral drugs save lives. It’s completely understandable to feel hesitant about treatment, given its potential side effects and the demands of taking pills every day. Just remember that, in the long run, not going on treatment is almost always worse. This isn’t just opinion—it has been proven repeatedly in clinical research and in real life. Indeed, the benefits of modern antiretroviral treatment greatly outweigh the risks for the vast majority of HIV-positive people.

Less than one percent of people with HIV seem able to live with the virus for decades without suffering serious harm. These lucky few (so-called “long-term non-progressors”) may have some genetic advantage that helps their bodies control the virus on their own. However, most HIV-positive people will eventually develop more serious disease if their HIV is left untreated.

How do we know which treatments are “best”?

HIV treatment involves many decisions. Two of the most pressing are when and what, or more precisely: When is the best time to start treatment? and What drugs should I take? The answers to these and other questions come from studies called clinical trials. In these studies, two or more groups of otherwise-similar patients are given different treatments, and the outcomes are compared. (For more information about clinical trials, see the booklet Clinical trials: what you need to know.)

Information from clinical trials is rendered into practical recommendations in treatment guidelines. These documents summarize the clinical information we have on key issues, such as when is the best time to start, what are the best combinations to use, how to detect and manage side effects, and so on.

Groups of HIV medical experts in the U. S., Canada, the European Union and elsewhere have produced treatment guidelines. Both British Columbia and Quebec produce their own HIV treatment guidelines, and many doctors in Canada refer to the U.S. guidelines called the DHHS guidelines. While in agreement on many points, guidelines may differ as to specific recommendations, such as when to start treatment and which drugs are considered best for first-time use.

Guidelines are not inflexible rules: they change often as new drugs, new technologies and new information become available. Finally, authoritative as they are, they are still only guidelines —for doctors to consult and use in combination with their own experience to guide their practice.
Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

CATIE provides information resources to help people living with HIV and/or hepatitis C who wish to manage their own health care in partnership with their care providers. Information accessed through or published or provided by CATIE, however, is not to be considered medical advice. We do not recommend or advocate particular treatments and we urge users to consult as broad a range of sources as possible. We strongly urge users to consult with a qualified medical practitioner prior to undertaking any decision, use or action of a medical nature.

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