COVID-19 is an emerging, rapidly evolving situation.

et the latest public health information from CDC: https://www.coronavirus.gov et the latest research information from NIH: https://www.nih.gov/coronavirus



HIV Treatment

HIV Treatment: The Basics

Last Reviewed: March 2, 2020

Key Points

- The treatment for HIV is called <u>antiretroviral therapy (ART)</u>. ART involves taking a combination of HIV medicines (called an <u>HIV treatment regimen</u>) every day.
- ART is recommended for everyone who has HIV. People with HIV should start taking HIV
 medicines as soon as possible. ART can't cure HIV, but HIV medicines help people with HIV
 live longer, healthier lives. ART also reduces the risk of <u>HIV transmission</u>.
- A main goal of HIV treatment is to reduce a person's <u>viral load</u> to an undetectable level. An
 <u>undetectable viral load</u> means that the level of HIV in the blood is too low to be detected by
 a viral load test. People with HIV who maintain an undetectable viral load have effectively
 no risk of transmitting HIV to their HIV-negative partners through sex.

What is the treatment for HIV?

The treatment for HIV is called <u>antiretroviral therapy (ART)</u>. ART involves taking a combination of HIV medicines (called an <u>HIV treatment regimen</u>) every day.

ART is recommended for everyone who has HIV. ART can't cure HIV, but HIV medicines help people with HIV live longer, healthier lives. ART also reduces the risk of <u>HIV transmission</u>.

How do HIV medicines work?

HIV attacks and destroys the infection-fighting <u>CD4 cells</u> of the <u>immune system</u>. Loss of CD4 cells makes it hard for the body to fight off infections and certain HIV-related cancers.

HIV medicines prevent HIV from multiplying (making copies of itself), which reduces the amount of HIV in the body (called the <u>viral load</u>). Having less HIV in the body gives the immune system a chance to recover and produce more CD4 cells. Even though there is still some HIV in the body, the immune system is strong enough to fight off infections and certain HIV-related cancers.

By reducing the amount of HIV in the body, HIV medicines also reduce the risk of HIV transmission. A main goal of HIV treatment is to reduce a person's viral load to an undetectable level. An <u>undetectable viral load</u> means that the level of HIV in the blood is too low to be detected by a viral load test. People with HIV who maintain an undetectable viral load have effectively no risk of transmitting HIV to their HIV-negative partners through sex.

When is it time to start taking HIV medicines?

People with HIV should start taking HIV medicines as soon as possible. It is especially important for people with <u>AIDS-defining conditions</u> or early HIV infection to start HIV medicines right away. (Early HIV infection is the period up to 6 months after infection with HIV.)

Women with HIV who become pregnant and are not already taking HIV medicines should also start taking HIV medicines as soon as possible.

What HIV medicines are included in an HIV regimen?

There are many HIV medicines available for HIV regimens. The HIV medicines are grouped into seven drug classes according to how they fight HIV.

The choice of an HIV regimen depends on a person's individual needs. When choosing an HIV regimen, people with HIV and their health care providers consider many factors, including possible side effects of HIV medicines and potential <u>drug interactions</u>.



What should people know about taking HIV medicines?

Taking HIV medicines keeps people with HIV healthy and prevents HIV transmission. Taking HIV medicines every day and exactly as prescribed (called <u>medication adherence</u>) also reduces the risk of <u>drug resistance</u>.

But sometimes HIV medicines can cause side effects. Most side effects from HIV medicines are manageable, but a few can be serious. Overall, the benefits of HIV medicines far outweigh the risk of side effects. In addition, newer HIV medicines cause fewer side effects than medicines used in the past. As HIV treatment continues to improve, people are less likely to have side effects from their HIV medicines.

HIV medicines can interact with other HIV medicines in an HIV regimen or with other medicines a person is taking. Health care providers carefully consider potential drug interactions before recommending an HIV regimen.

Where can I learn more about HIV treatment?

Read the other fact sheets in the AIDS*info* HIV Treatment series to learn more about HIV treatment. Topics covered in this series include:

- When to Start HIV Medicines
- · What to Start: Choosing an HIV Regimen
- FDA-Approved HIV Medicines

- HIV Treatment Adherence
- Drug Resistance
- What is a Drug Interaction?

This fact sheet is based on information from the following sources:

- From the Department of Health and Human Services: <u>Guidelines for the Use of Antiretroviral</u>
 <u>Agents in Adults and Adolescents with HIV</u>
 - Treatment Goals
 - Initiation of Antiretroviral Therapy
 - What to Start: Initial Combination Regimens for the Antiretroviral-Naive Patient
 - Considerations for Antiretroviral Use in Special Patient Populations: Acute and Recent (Early) HIV Infection
 - <u>Limitations to Treatment Safety and Efficacy</u>: <u>Adverse Effects of Antiretroviral Agents</u>
- From the Department of Veterans Affairs: Treatment Decisions for HIV
- From the National Institute of Allergy and Infectious Diseases: HIV/AIDS Treatment