

10 Things To Know About HIV Suppression

Development of antiretroviral drugs to treat HIV has turned what was once an almost always fatal infection into a manageable chronic condition. Daily antiretroviral therapy can reduce the amount of HIV in the blood to levels that are undetectable with standard tests. Staying on treatment is crucial to keep the virus suppressed. NIAID-supported research has demonstrated that achieving and maintaining a “durably undetectable” viral load (the amount of HIV in the blood) not only preserves the health of the person living with HIV, but also prevents sexual transmission of the virus to an HIV-negative partner.

What is viral suppression?

Antiretroviral therapy keeps HIV from making copies of itself. When a person living with HIV begins an antiretroviral treatment regimen, their viral load drops. For almost everyone who starts taking their HIV medication daily as prescribed, viral load will drop to an undetectable level in six months or less. Continuing to take HIV medications as directed is imperative to stay undetectable.

What does it mean to be durably undetectable?

Taking antiretroviral therapy daily as prescribed to suppress HIV levels leads to an “undetectable” status. A person is considered to have a “durably undetectable” viral load if their viral load remains undetectable for at least six months after their first undetectable test result. It is essential to continue to take every pill every day as directed to maintain an undetectable viral load.

Does being durably undetectable mean that the virus has left my body?

Even when viral load is undetectable, HIV is still present in the body. The virus lies dormant inside a small number of cells in the body called viral reservoirs. When therapy is halted by missing doses, taking a treatment holiday, or stopping treatment, the virus emerges and begins to multiply, becoming detectable in the blood again. This newly reproducing virus is infectious. It is essential to take every pill every day as directed to achieve and maintain a durably undetectable status.

How does being durably undetectable affect my risk of transmitting HIV to a sexual partner?

People living with HIV who take antiretroviral medications daily as prescribed and who achieve and then maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner.

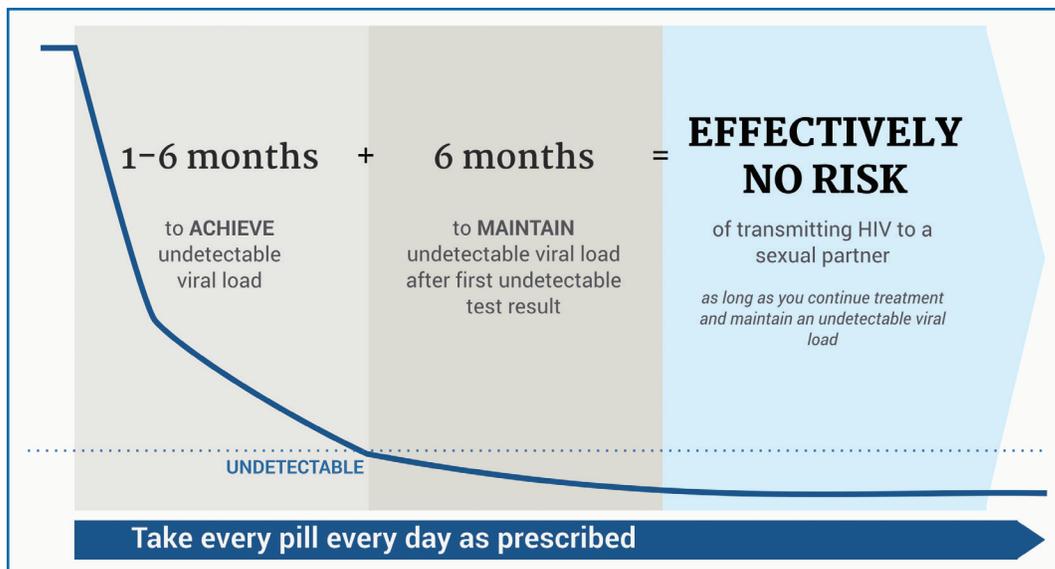


Three large multinational research studies involving couples in which one partner was living with HIV and the other was not—HPTN 052, PARTNER, and Opposites Attract—observed no HIV transmission to the HIV-negative partner while the partner with HIV had a durably undetectable viral load. These studies followed approximately 3,000 male-female and male-male couples over many years while they did not use condoms. Over the course of the PARTNER and Opposites Attract studies, couples reported engaging in more than 74,000 condomless episodes of vaginal or anal intercourse.

After I begin HIV treatment, how long does it take for the risk of sexually transmitting HIV to become effectively zero?

There is effectively no risk of sexual transmission of HIV when the partner living with HIV has achieved an undetectable viral load and then maintained it for at least six months. Most people living with HIV who start taking antiretroviral therapy daily as prescribed achieve an undetectable viral load within one to six months after beginning treatment.

A person’s viral load is considered “durably undetectable” when all viral load test results are undetectable for at least six months after their first undetectable test result. This means that most people will need to be on treatment for 7 to 12 months to have a durably undetectable viral load. It is essential to take every pill every day to maintain durably undetectable status.



People living with HIV who achieve and then maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner. Credit: NIAID

What happens if I stop taking antiretroviral therapy?

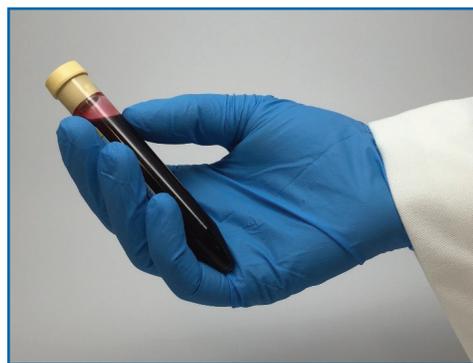
When therapy is stopped, viral load rebounds, and the risk of transmitting HIV to a sexual partner in the absence of other prevention methods returns. NIAID-supported research has provided clear-cut scientific evidence to support the benefits of staying on continuous antiretroviral treatment. In 2006, NIAID’s large clinical trial called SMART showed that people receiving intermittent

antiretroviral treatment had twice the rate of disease progression compared to those receiving continuous treatment.

Taking antiretroviral treatment daily as directed to achieve and maintain durably undetectable status stops HIV infection from progressing, helping people living with HIV stay healthy and live longer while offering the benefit of preventing sexual transmission. Stopping and re-starting treatment can cause drug resistance to develop, making that treatment regimen ineffective and limiting future treatment options.

How often do I need to be tested to confirm that I'm durably undetectable?

According to U.S. HIV treatment guidelines, viral load typically should be measured every three to four months. People living with HIV should talk with their health care teams to determine an appropriate schedule for viral load testing.



A vial of blood. Credit: NIAID

What are viral load “blips”?

Even if a person is durably undetectable and taking antiretroviral therapy daily as prescribed, they may experience small, transient increases in viral load called “blips” followed by a decrease back to undetectable levels. Having a blip is relatively common and does not indicate that antiretroviral therapy has failed to control the virus. Scientists are working to better understand what causes blips.

How do I talk to my partner about their risk of acquiring HIV?

People living with HIV can involve their partners in their treatment plans. Research shows that adhering to treatment often can improve with support from loving relationships and from the community.

Pre-exposure prophylaxis (PrEP), in which an HIV-negative person takes antiretroviral medication to prevent infection, can be part of the conversation.

Do I still need to worry about other sexually transmitted infections?

Neither HIV treatment nor PrEP prevents most sexually transmitted infections, or STIs.

Ways to reduce the risk of STIs include having both partners tested, limiting the number of sexual partners, and using condoms. Vaccines are available to prevent some STIs, including hepatitis B and human papillomavirus (HPV).

For more information about HIV treatment and prevention research, see www.niaid.nih.gov/diseases-conditions/hivaids.

