

Fact Sheet: Undetectable Viral Load

By Emily Claymore

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The term "undetectable [viral load](#)" pops up everywhere from lab reports and medical journals to social media and dating apps.

Here are some key terms and concepts to help HIV-positive and HIV-negative folks understand and explore what "undetectable" means.

Key Terms

- **HIV.** HIV is the virus that causes AIDS. HIV hijacks cells in your immune system and uses them to replicate (make more copies of itself), destroying those cells in the process.
- **Viral load.** Viral load refers to how many copies of HIV are present in a milliliter sample of blood. Viral load testing is a way to estimate how much HIV is in the blood. It is used to monitor immune function and see how well HIV treatment is working.
- **[Antiretroviral therapy \(ART\)](#).** ART involves taking medications to keep the virus from replicating in an HIV-positive person's cells. These drugs thereby decrease viral load.
- **[Undetectable viral load](#).** When copies of HIV cannot be detected by standard viral load tests, an HIV-positive person is said to have an "undetectable viral load." For most tests used clinically today, this means fewer than 50 copies of HIV per milliliter of blood (<50 copies/mL). Reaching an undetectable viral load is a key goal of ART.
- **[PrEP](#).** Short for "pre-exposure prophylaxis," PrEP is an HIV prevention strategy in which HIV-negative people take an oral pill once a day to reduce their risk of HIV infection.

Being Undetectable: Good News

- **[You can live a healthier and longer life.](#)** Using ART to reach an undetectable viral load means that there is less HIV in your body. Less HIV means less damage to your immune system, allowing you to stay healthier and [live longer](#).
- **[You can reduce HIV transmission risk.](#)** Studies have shown that HIV-positive people who use ART can reduce the likelihood of transmitting the virus to their HIV-negative partners by as much as [92-96%](#). More people on effective treatment and with their virus in check means more HIV infections are prevented -- an approach called "treatment as prevention."

A Few Words of Caution

- **"Undetectable" does not mean "cured."** An undetectable viral load means that so few copies of the virus are present in the blood that today's monitoring tests are unable to detect them. Even with an undetectable viral load, however, an HIV-positive person still has the virus.
- **[It's not impossible to transmit HIV.](#)** Your viral load can fluctuate between monitoring tests. This can happen for no known reason, or when you have a sexually transmitted infection like chlamydia or gonorrhea, or when ART doses are missed. During these viral load "blips," the chance of transmitting the virus may be higher. Also, viral load tests only monitor the amount of HIV in the blood, not in semen or vaginal fluid. We do not yet know how much virus needs to be present in body fluids for transmission to be possible.
- **Findings are largely from heterosexual couples.** The studies that established ART treatment as effective at reducing HIV transmission by [92-96%](#) focused almost exclusively on heterosexual couples. More research is needed to assess whether suppressed viral load has identical benefits for gay and bisexual men and people who inject drugs.
- **New HIV infections continue to increase among gay and bisexual men.** Despite the availability of ART and high levels of viral suppression, HIV incidence (the rate of new infections) is [rising among gay and bisexual men](#), for reasons that researchers are investigating.

While suppressing the virus to undetectable levels has clear benefits for both HIV-positive and HIV-negative people, treatment as prevention is just one strategy for preventing new HIV infections. Other essential tools for HIV prevention include condoms and lube, sterile syringes for people who inject drugs or hormones, PrEP for HIV-negative individuals, regular [HIV testing](#), self-education about HIV and sexual health, and open communication with sex partners.

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