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# Women and Viral Load

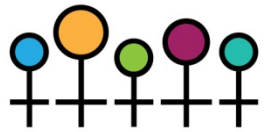
*Last updated: January 20, 2025*

*Together, we can change the course of the HIV epidemic...one woman at a time.*

#onewomanatatime

[www.thewellproject.org](http://www.thewellproject.org)

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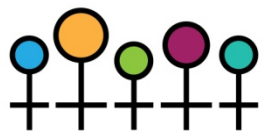


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# What Is Viral Load?

**Viral load is the amount of HIV (number of viruses or copies) in your bloodstream**

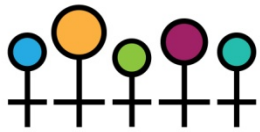
- HIV attacks immune system cells called **CD4 cells**
  - CD4 cells become factories producing many copies of HIV
- Increase in HIV copies damages or kills CD4 cells, weakening the immune system
- The higher the amount of HIV, the more the immune system becomes damaged



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# How Is Viral Load Measured?

- Viral load can be measured by different lab tests:
  - **Polymerase chain reaction (PCR)** test
  - **Branched DNA (bDNA)** test
  - **Nucleic acid sequence-based assay (NASBA)**
- Each lab test measures the amount of virus differently
  - It is best to stick with the same kind of test to compare results over time
- Viral load results are reported as the **number of copies of HIV in one milliliter (ml) of blood**
  - The lower the number, the less virus there is in your blood
  - Numbers can range from several million copies to as few as 20 copies

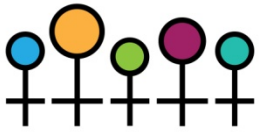


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# What Does

# “Undetectable” Mean?

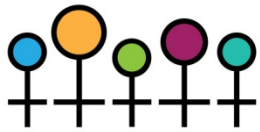
- If you have fewer than 50 copies of HIV per ml in your blood, your viral load is considered "undetectable"
  - Being undetectable is a great result; it means your virus is under control
  - Undetectable means that there is not enough HIV in your bloodstream to be measured by the test
  - It does **not** mean that you have been cured of HIV; HIV is still in your body



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# What Does “Undetectable” Mean?

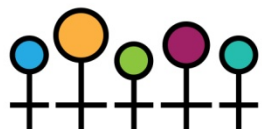
- Labs that test viral load may have different cut-offs below which they cannot detect HIV
- For example, you could have 35 copies of HIV in your blood, and:
  - At Lab #1, which cannot detect any HIV below 50 copies, your viral load would be considered undetectable
  - At Lab #2, which cannot detect any HIV below 20 copies, your viral load would be considered detectable
- Practically speaking, if you stay at or below 50 copies, the virus is considered well-controlled, and your HIV treatment regimen is working well



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# Undetectable Equals Untransmittable (U=U)

- **Having an undetectable viral load reduces your chance of transmitting HIV to sexual partners to zero**
  - Large studies in couples in which one partner is HIV-negative and the other is living with HIV and has an undetectable viral load while on HIV treatment over time, **no HIV-negative partner acquired HIV**
- Likelihood of transmission to baby during pregnancy, birth, **and** breast/chestfeeding can be ***less than 1 in 100*** (not proven zero)
  - Must have an undetectable viral load for at least 6 months
  - Did not look at undetectable viral load and HIV transmission through use of shared injection drug equipment

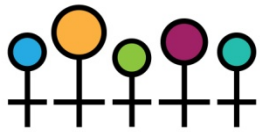


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# How Are Viral Load Results Used?

## **To Check HIV Progression:**

- A viral load test tells you how active HIV is in your body
- When compared over time, viral load results show whether the amount of HIV in your bloodstream is higher or lower than it was before
- The higher your viral load, the more actively HIV is reproducing and the more likely you are to lose CD4 cells in the future



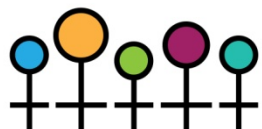
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# How Are Viral Load Results Used?

## **To Measure How Well HIV Drugs Are Working:**

- Your viral load will usually go down within weeks of starting your drug regimen
- If your viral load goes up while taking HIV drugs, your drugs may not be working as well as they should
  - Virus may be resistant to your drug regimen
  - Another medicine may block absorption of your HIV drugs
  - Talk to your healthcare provider about next steps
  - Tell healthcare provider if you have problems with adherence
- Viral load can be reduced to undetectable in many people
- If you stop taking your HIV drugs, viral load will go up again



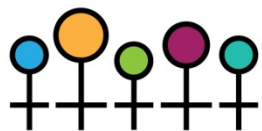


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# How Are Viral Load Results Used?

## **To Enhance Motivation and Promote Treatment Adherence:**

- Finding out that you have an undetectable viral load can be both reassuring and motivating
- Shows that your efforts to control the virus by taking your HIV drugs as prescribed are working well
- Is proof to continue treatment for best overall health

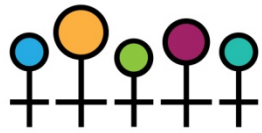


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# When Should You Be Tested?

In the US:

- **If you are not on HIV treatment:**
  - When you start receiving HIV care
- **When you start treatment:**
  - When starting and 2-8 weeks after starting treatment
  - Repeat every 1-2 months until viral load becomes undetectable
- **Once on a stable regimen and undetectable:**
  - Every 3-6 months
- **When you change HIV drugs:**
  - 2-8 weeks after treatment change
  - Repeat every 1-2 months until viral load becomes undetectable

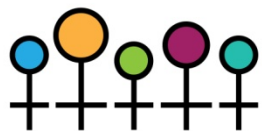


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# When Should You Be Tested?

Globally:

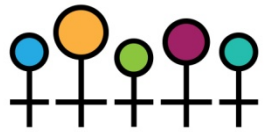
- 6 months after starting treatment
- 12 months after starting treatment
- Once a year thereafter



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# When Should You Be Undetectable?

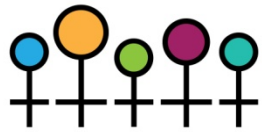
- If drug regimen works, undetectable viral load within 6 months
- If viral load doesn't come down, discuss with healthcare provider:
  - Problems with drug absorption
  - Adherence issues
  - Drug resistance
  - Drug interaction with other medications
- May need additional tests, change in drug regimen



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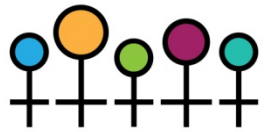
- Some studies comparing viral load levels between men and women have found sex differences
  - At similar CD4 cell counts, women tend to have lower viral load levels than men
  - Differences seem greatest during the early course of HIV (acute HIV)
  - This early difference does not result in an overall sex-based difference in the speed at which HIV advances



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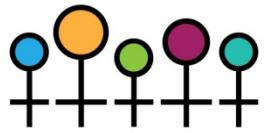
- Studies have shown that when taking HIV drugs, men and women are equally likely to achieve **viral suppression** (viral load below 200 copies)
  - Studies **have not** found that pregnancy causes HIV to become more advanced
- **The strongest single factor that predicts the health of all people living with HIV is taking HIV drugs**



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# Women and Viral Load

- One study: HIV lives and multiplies more often in female genital fluids than in semen (cum), even at an undetectable viral load
- Later studies: female genital tract serves as a **reservoir** (place where HIV continues to live and reproduce despite effective HIV treatment)
- Consider viral load, CD4 cell count and other lab results when starting or switching treatment
  - Talk to your healthcare provider!

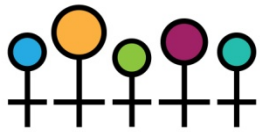


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# Future Research

- Viral load and HIV drug levels may vary during menstrual cycle
  - May affect drug dosing and timing of viral load tests
- Understanding more about sex differences in viral load may improve care for women living with HIV
- Following guidelines for viral load testing is important for monitoring your HIV
- Viral load testing helps your health care provider work with you to keep you healthy





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## Learn More!

- To learn more about this topic, please read the full fact sheet on this topic:
  - Fact sheet: [Women and Viral Load](#)
- For more fact sheets and to connect to our community of women living with HIV, visit:
  - [www.thewellproject.org](http://www.thewellproject.org)
  - [@thewellprojecthiv.bsky.social](https://bsky.app/@thewellprojecthiv)
  - [www.facebook.com/thewellproject](https://www.facebook.com/thewellproject)
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