

Viral load tests

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HIV multiplies – by ‘copying’ itself – within your body. [Viral load](#) [1]A measurement of the quantity of HIV RNA in the blood. Viral load blood test results are expressed as the number of copies (of HIV) per milliliter of blood plasma.

The reason this is important is because the amount of virus in your blood is a direct indication of how much damage HIV may be doing. The higher the amount of HIV, the greater the risk of your immune system being damaged, and the greater the risk of serious HIV-related illness. Viral load test results are expressed in terms of the amount of HIV per millilitre of blood.

What does viral load test entail?

A viral load test is a simple blood test.

Interpreting viral load test results

Viral load tests may show a great range in the amount of virus the blood, varying wildly between individuals from millions of copies to as few as fifty. Your doctor will want to keep an eye on how your viral load is changing over time. This will be a pretty good indicator of how well you are doing on treatment, or if you are not on treatment, it may suggest whether your health is stable, or whether there is any risk you could get sick.

In general, the following understandings of viral load are used:

- More than 100,000 copies – high viral load;
- 10,000 to 100,000 copies – moderate viral load;
- 50 to 10,000 copies – low viral load;
- Under 50 copies – ‘undetectable’ viral load.

Currently, the T-cell or CD4 counts are more often used to make a decision regarding commencing [ARV](#) [3]A medication or other substance which is active against retroviruses such as HIV., but the viral load results may also be taken into account when making that decision.

Measurements of viral load

Sometimes you may hear the word ‘log’ used in relation to viral load. For example, your viral load after commencing treatment may drop from 100,000 copies to 10,000, which is called a ‘one log’ reduction. From 100,000 copies to 1,000 is a ‘two log’ reduction. An easy way to remember log is that they involve adding or subtracting a zero from a number.

An important note about ‘undetectable’ viral load

If your result comes back as ‘undetectable’ this does not mean that there is no HIV in your blood. Unfortunately, the term ‘undetectable’ can be very misleading. It means that the amount is less than 50 copies of HIV per ml of blood.

What factors affect viral load?

A number of factors can affect viral load. Viral load can go up and down in response to; your general health,

[antiviral](#) [4]A medication or substance which is active against one or more viruses. May include anti-HIV drugs, but these are more accurately termed antiretrovirals. drugs (and whether they are working), changes in treatment, the presence of other infections, vaccinations (e.g. hepatitis B), and the strength of your immune system.

Viral load and treatment decisions

You and your doctor need to decide if and when to start ARV treatment. You may want to use the results of your viral load tests over time to inform these decisions. This is discussed in more detail in the chapter Making decisions about treatment.

Viral load in blood and viral load in vaginal fluids

Research shows that there is usually a relationship between levels of HIV in the bloodstream and levels of virus in other body fluids like vaginal secretions. In other words, if your blood viral load is low, it is likely that the level of virus in vaginal fluids will also be low. However, this is not always the case and you are not able to have sexual fluids tested routinely for viral load. It is important to know that some studies have been unable to demonstrate a relationship between blood and vaginal fluids; finding low levels of virus in blood and higher levels of virus in vaginal secretions. The best that can be said is that if you have low levels of virus in your blood, you are most likely to also have low levels of virus in your vaginal fluids, but that a small number of cases will not reflect this pattern.

Viral load in the vaginal fluids is likely to be higher than as measured in the blood if you have a genital infection or sexually transmissible infection ([STI](#) [5][Sexually Transmissible (or Transmitted) Infection] Infections spread by the transfer of organisms from person to person during sexual contact. Also called venereal disease (VD) (an older public health term) or sexually transmitted diseases (STDs).) of some kind.

Viral load in breast milk

Viral load in breast milk may fluctuate and will not necessarily mirror blood viral load. Common infections such as mastitis in breastfeeding women can cause significant increases in breast milk viral load, regardless of blood levels. [Monitoring your HIV](#) [6][up](#) [6][CD4 \(T-cell\) counts](#) [7]

- [viral load](#)

Links:

[1] <http://www.napwa.org.au/glossary/term/416>

[2] <http://www.napwa.org.au/glossary/term/125>

[3] <http://www.napwa.org.au/glossary/term/122>

[4] <http://www.napwa.org.au/glossary/term/123>

[5] <http://www.napwa.org.au/glossary/term/188>

[6] <http://www.napwa.org.au/resource/treat-yourself-right/living-with-hiv-your-health/monitoring-your-hiv>

[7] <http://www.napwa.org.au/resource/treat-yourself-right/cd4-t-cell-counts>