

prescribed. Most people on treatment take pills only once or twice a day and find they can fit taking anti-HIV drugs into their lives. However, missing doses can still happen, especially if you are depressed, anxious, frustrated or using alcohol or drugs. If you are having difficulties taking your medications as prescribed and directed, you might want to think about getting help because sticking to your pill schedule (or “adhering” to it) is one of the most important aspects of your treatment. Missing even one dose can let drug levels in your blood drop so low that the virus can become active.

Sometimes the side effects of an anti-HIV drug make it difficult to take all the doses as prescribed. Nausea is an example. It is important to talk to your doctor about side effects, because they can be managed. Other times, even if all the doses are taken, there is something stopping the drug from working in the body. It may be that your body cannot absorb the drug, or that another drug you are taking is blocking the anti-HIV drug from working. Be sure to tell your doctor about all the prescription medications, over-the-counter products, herbal therapies, supplements and any recreational drugs you take.

Finally, a significant rise in viral load may be a sign that the virus is replicating even in the presence of HIV treatment. This means the HIV has become resistant to at least one drug in your combination. Resistance to an anti-HIV drug is a problem because it means that you can no longer use that drug to keep your viral load low. Poor adherence can lead to drug resistance. If your virus does become resistant, you and your doctor will likely discuss changing the combination of drugs in your treatment.

## Is viral load different for women?

On average, women tend to have slightly lower viral loads than men with the same CD4+ cell count. However, this doesn't seem to affect women's health or how they respond to treatment.

## If I do have a viral load test, will people know I'm HIV positive?

It's against the law for your doctor and the people who work with him or her to tell anyone about your test without your permission. It is also against the law for any laboratory doing this testing to release any information about your testing to anyone other than you or your doctor, without your permission.

## Where can I get more information?

Your doctor and other members of your health care team are good sources of information. They should be able to answer your questions about viral load testing. You might want to use this brochure to start a discussion. This and more resources are available for free at [www.catie.ca](http://www.catie.ca).

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## What you need to know

- A viral load test measures the number of copies of the virus in your blood. It is reported as copies/ml.
- Viral load is a sign of how active HIV is in your body. A lower number means the virus is less active.
- You will have your viral load tested regularly. Your viral load will naturally vary; it is those consistent changes over time that are most important.
- Your viral load is one of the factors you and your doctor will use to decide when to start HIV treatment and when to change it.
- If you are taking HIV treatment, a consistent increase in your viral load may be a sign that the virus is developing resistance to one of your anti-HIV drugs. You and your doctor will discuss what to do next.

CATIE is Canada's source for up-to-date, unbiased information about HIV and hepatitis C. We connect people living with HIV or hepatitis C, at-risk communities, healthcare providers and community organizations with the knowledge, resources and expertise to reduce transmission and improve quality of life.

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# HIV

## Viral Load Testing



Canada's source for  
HIV and hepatitis C  
information

**As a person with HIV, having your viral load tested will likely be an important part of your plan to stay healthy.**

**You will have the test done regularly, and it will be one of several factors you and your doctor will look at when deciding how to manage your infection.**

This brochure introduces you to the viral load test and answers basic questions about how it fits into your treatment plan.

### **What is the viral load test?**

A viral load test measures the amount of HIV in your blood. It does this by measuring the number of copies of a specific part of the virus called RNA, or ribonucleic acid.

### **Why do I need a viral load test if I have already had an HIV test?**

An HIV antibody test indicates whether you are infected with HIV. A viral load test shows how much of the HIV virus is in your blood. While you will have an HIV antibody test only at diagnosis, you will have viral load tests on a regular basis.

### **How is the viral load test different from a CD4+ cell count?**

A CD4+ cell count helps measure the strength of your immune system. A viral load test indicates how active HIV is in your body. Together these two tests are used to monitor how your body is responding to HIV infection and to HIV treatment.

### **How are viral load test results reported?**

You will get an answer in copies/millilitre (ml). The lower the number, the less virus there is in

your blood. Numbers can range from over 1,000,000 copies/ml to undetectable.

### **What does undetectable mean?**

Undetectable means that there are fewer copies of the virus in your blood than the test can measure. It does not mean that you have been cured of HIV. The virus is still in your body.

### **If my viral load is undetectable, can I still pass HIV to others?**

Yes. While HIV may not be detectable in the blood, there might still be enough to infect someone. Also, there may be higher levels of HIV in semen or vaginal secretions. So, even if you have an undetectable viral load, you might still infect someone if you share needles or have unprotected sex.

### **Why should I care about my viral load?**

Your viral load gives you an idea of how active HIV is in your body. Because the amount of HIV in your blood changes, you will have viral load tests on a regular basis. The test results are helpful for making decisions about HIV treatment, such as when to start treatment and when to change the drugs you are taking.

### **What does it mean if my viral load changes from one test to the next?**

Your viral load might change from one test to the next, sometimes a lot. These are natural fluctuations. Your doctor will likely tell you to expect them and to try not to worry too much when they happen.

More important are consistent trends, either increases or decreases, in your viral load over several tests.

### **If I do have a viral load test, will I have to start HIV treatment?**

Having a viral load test doesn't mean that you have to rush into taking drugs or other treatments. A viral load test gives you more information for treatment decisions now and in the future. In fact, viral load tests are most useful when you have several taken over a period of time.

If you're considering treatment, you should know that anti-HIV drugs have side effects, which are different for everyone. And, you have to be prepared for changes in your life. CATIE's *Practical Guide to HIV Drug Treatment* can give you more information.

### **How will I use viral loads to help direct my treatment?**

If you're on treatment, viral load is one way you and your doctor will monitor the treatment's effect on the virus. You will have viral load tests done regularly to check whether your treatment is working. In general, anti-HIV drugs slow down the virus and lower viral load.

An undetectable viral load is the goal of treatment, especially when you start your first anti-HIV drug combination. In later combinations, an undetectable viral load is still the goal, although it may not be as easy to achieve.

### **What does it mean if my viral load rises?**

Many different factors can affect your viral load, such as the progress of HIV infection, your overall health, whether the treatment is working, and even how the test was performed that day. You and your doctor will try to find the cause of the rise in viral load by looking at your past viral load tests and by searching for other clues.

If you see a rise in your viral load, your doctor may ask you to have another test right away. The second test helps to check whether the rise in viral load is temporary or a consistent trend. Temporary changes in viral load can have many causes. For example:

- Sometimes, your viral load may become detectable on a single test and then go back to undetectable on the next test. This is called a "blip" and it is normal.
- Your viral load may rise temporarily if you have a cold or other brief illness.
- Temporary increases may occur after vaccinations, such as a flu shot. Get a vaccination if you need one, but you might want to wait a month after a vaccination (or an illness) before you have another viral load test.
- The way a viral load test is done varies from laboratory to laboratory, and this may change test results. Be aware of this when comparing tests done by two different laboratories, especially if they are in different provinces or countries.

If the rise in viral load cannot be explained any other way, it might be a sign that you need to look at your treatment plan.

### **What does a consistent rise in viral load mean for my treatment plan?**

A consistent rise in viral load may be a sign that your anti-HIV drug combination is falling. Together, you and your doctor will discuss the possible reasons for this and what to do next.

Your viral load may rise if you are not taking all doses of your medication as