

HIV Treatment Regimen Failure

What is regimen failure?

Regimen failure occurs when the anti-HIV medications you are taking do not adequately control the infection.

Factors that may cause regimen failure include:

- Poor health before starting the treatment regimen
- Poor adherence to the regimen (not taking medications exactly as instructed by your doctor, including missing doses)
- Previous anti-HIV treatment and/or **drug resistance**
- Alcohol or drug abuse
- Medication side effects, medication **toxicity**, or interactions with other medications
- Medication poorly absorbed by the body
- Medical conditions or illnesses other than HIV infection

What are the three types of regimen failure?

1. *Virologic failure:* Regimens should lower the amount of HIV in your blood to undetectable levels. Virologic failure has occurred if HIV can still be detected in your blood 48 weeks after starting treatment, or if it is detected again after treatment had previously lowered your **viral load** to undetectable.
2. *Immunologic failure:* An effective regimen should increase the number of CD4 cells in your blood or at least prevent the number from going down. Immunologic failure has occurred if your **CD4 count** decreases below a **baseline** measurement or does not increase above the baseline count within your first year of therapy.
3. *Clinical failure:* Clinical failure has occurred if you experience an HIV-related infection or a decline in physical health despite at least 3 months of anti-HIV treatment.

Virologic failure is the most common kind of regimen failure. People with virologic failure who do not change to a more effective drug regimen usually progress to immunologic failure within about 3 years. Immunologic failure may be followed by clinical failure.

Terms Used in This Fact Sheet:

Baseline: an initial measurement (such as CD4 count or viral load) made before starting therapy and used as a reference point to monitor your HIV infection.

CD4 count: CD4 cells, also called T cells or CD4⁺ T cells, are white blood cells that fight infection. HIV destroys CD4 cells, making it harder for your body to fight infections. A CD4 count is the number of CD4 cells in a sample of blood.

Drug resistance: HIV can mutate (change form) while a person is taking anti-HIV medication. This may result in HIV that cannot be controlled with certain medications.

Toxicity: the harm a medication can do to your body.

Viral load: the amount of HIV in a sample blood.

What happens if my regimen fails?

If your treatment regimen fails, your doctor will evaluate your treatment history, medication side effects, problems you may have had with taking the medications as directed, your physical condition, and results of drug resistance testing to determine why your regimen is failing. You and your doctor may then select a new drug regimen to better control your infection. See [Changing Regimens Fact Sheet](#) for more information about changing treatment regimens.

For more information:

Contact your doctor or an *AIDSinfo* Health Information Specialist at 1-800-448-0440 or <http://aidsinfo.nih.gov>.