#### What is the treatment for HIV?

There's no cure for HIV, but many different drugs are available to control the virus. Such treatment is called **antiretroviral therapy**, or c-ART. Each class of drug blocks the virus in different ways. c-ART is now recommended for everyone, regardless of CD4 T cell counts. It's recommended to combine three drugs from two classes to avoid creating drug-resistant strains of HIV.

The classes of anti-HIV drugs include:

- Non-nucleoside reverse transcriptase inhibitors (NNRTIs) turn off a protein needed by HIV to make copies of itself.
- Nucleoside or nucleotide reverse transcriptase inhibitors (NRTIs) are faulty versions of the building blocks that HIV needs to make copies of itself.
- Protease inhibitors (PIs) inactivate HIV protease, another protein that HIV needs to make copies of itself.
- Entry or fusion inhibitors Tblock HIV's entry into CD4 T cells.
- Integrase inhibitors work by disabling a protein called integrase, which HIV uses to insert its genetic material into CD4 T cells.

It is very important to continue taking the prescribed drugs at all times as interruption/dose skipping can cause resistance of the virus, necessitating prescription of more drugs or drugs with less favourable side-effects.

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# **HIV Infections**



## SAFETY HEALTH SATISFACTION

The pillars defining our quality care

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St. Maarten Medical Center

#### What is HIV?

HIV stands for **human immunodeficiency virus**, which is the virus that causes HIV infection. The abbreviation "HIV" can refer to the virus or to HIV infection.

HIV attacks and destroys the infection-fighting CD4 cells of the immune system. The loss of CD4 cells makes it difficult for the body to fight infections and certain cancers. Without treatment, HIV can gradually destroy the immune system and advance to acquired immune deficiency syndrome (AIDS).

## How is HIV spread?

HIV is spread through contact with certain body fluids from a person with HIV.



These body fluids include:

- Blood
- Semen
- Pre-seminal fluid
- Vaginal fluids
- Feces (rectal contents)
- Breast milk

The spread of HIV from person to person is called HIV transmission. The spread of HIV from a woman with HIV to her child during pregnancy, childbirth, or breastfeeding is called mother-to-child transmission of HIV, also called vertical transmission.

The most common way HIV is spread is by:

- Having anal or vaginal sex with someone who has HIV without using a condom or taking medicines to prevent or treat HIV.
- Sharing injection drug equipment ("works"), such as needles, with someone who has HIV.

### What are the symptoms of HIV?

Within 2 to 4 weeks after infection with HIV, some people may have flu-like symptoms, such as fever, chills, or rash. The symptoms may last for a few days to several weeks.

After this earliest stage of HIV infection, HIV continues to multiply but at very low levels. More severe symptoms of HIV infection, such as signs of opportunistic infections, generally don't appear for many years.

Opportunistic infections are infections and infection-related cancers that occur more frequently or are more severe in people with weakened immune systems than in people with healthy immune systems.

Without treatment with HIV medicines, HIV infection usually advances to AIDS in 10 years or longer, though it may advance faster in some people.

HIV transmission is possible at any stage of HIV infection—even if a person with HIV has no symptoms of HIV.

## How is HIV diagnosed?

HIV is most commonly diagnosed by testing your blood (or saliva) for antibodies to the virus. Unfortunately, it takes time for your body to develop these antibodies — usually up to 12 weeks.



A quicker test checks for HIV antigen, a protein produced by the virus immediately after infection. It can confirm a diagnosis soon after infection and allow the person to take swifter steps to prevent the spread of the virus to others.

#### Positive test

If you receive a diagnosis of HIV/AIDS, several tests can help your doctor determine the stage of your disease and the best treatment. These tests include:

- CD4 T cell count. CD4 T cells are white blood cells that are specifically targeted and destroyed by HIV. Even if you have no symptoms, HIV infection progresses to AIDS when your CD4 T cell count dips below 200.
- Viral load (HIV RNA). This test measures the amount of virus in your blood. A higher viral load has been linked to a worse outcome.
- Drug resistance. Some strains of HIV are resistant to medications. This test helps your doctor determine if your specific form of the virus has resistance and guides treatment decisions.