

### The importance of viral suppression in preventing cancer

Living with HIV comes with unique health challenges, but advances in treatment have transformed it into a manageable chronic condition. One of the most important tools for long-term health is viral suppression, achieved when antiretroviral therapy (ART) reduces the amount of HIV in the blood to undetectable levels. Beyond controlling HIV itself, viral suppression plays a critical role in preventing certain cancers, particularly those associated with weakened immunity.

#### Understanding viral suppression

Viral suppression occurs when ART lowers HIV to levels undetectable by standard tests. This prevents the virus from damaging the immune system, allowing the body to fight infections and abnormal cell growth more effectively. Maintaining viral suppression is key to living a long, healthy life with HIV.

HIV attacks CD4 cells, gradually weakening the immune system. A weakened immune system is less able to fight off infections that can lead to cancer. Certain cancers,

known as HIV-associated cancers, are more common in people living with HIV, including cervical cancer, anal cancer, Kaposi sarcoma, and non-Hodgkin lymphoma. Persistent viral replication accelerates immune suppression, increasing the risk of developing these cancers, while keeping the virus under control significantly reduces this risk.

#### Viral suppression and cancer prevention

Maintaining viral suppression strengthens the immune system, enabling it to detect and destroy abnormal cells before they develop into cancer. It also improves the

body's ability to control infections such as HPV, Hepatitis B, and Epstein-Barr Virus, all of which can contribute to cancer. In people who develop pre-cancerous lesions, a suppressed viral load can slow progression to full-blown cancer, giving routine screening and timely treatment a better chance to succeed.

People living with HIV who are virally suppressed also respond more effectively to cancer treatments such as chemotherapy, radiation, and surgery, experiencing fewer complications and higher overall survival rates. Antiretroviral therapy is therefore essential, as it not only reduces HIV to undetectable levels but also helps re-

build the immune system and lower the risk of HIV-related cancers.

Viral suppression works best when combined with preventive measures such as regular cancer screenings, vaccinations against HPV and Hepatitis B, healthy lifestyle choices, and early treatment of pre-cancerous conditions.

While it does not eliminate cancer risk entirely, viral suppression significantly reduces it and remains one of the most powerful strategies for maintaining health.

At the Uganda Cancer Institute, people living with HIV are encouraged to take ART as prescribed, regularly monitor their viral load, attend routine cancer screenings, and receive recommended vaccines.

Maintaining viral suppression is a life-saving strategy that protects health, prevents cancer, and ensures a longer, healthier life.

