Detectable viral loads linked to smoking and mental health issues

Surveys have found that rates of tobacco smoking among HIV-positive people are generally greater than among HIV-negative people. So it is important to understand smoking and related behaviours in order to design successful smoking-cessation programs for HIV-positive people.

Researchers at several clinics in the U.S. collaborated in a study to investigate smoking and its possible relation to other health issues among nearly 3,000 HIV-positive people. Participants completed surveys on computers or electronic tablets. Researchers found that some smokers were more likely to have a “moderate-to-severe” degree of depression and engage in the use of street drugs and were less likely to have an undetectable viral load.

Study details

Researchers recruited 2,952 HIV-positive people from clinics in the following cities:

- Birmingham, Alabama
- Boston, Massachusetts
- San Diego, California
- Seattle, Washington

Participants completed surveys about tobacco use and other behaviours between 2005 and 2009. Furthermore, researchers asked participants about anxiety, depression, substance use and their ability to take ART every day exactly as prescribed and directed. Researchers also accessed data from the medical records of participants.

The average profile of participants upon entering the study was as follows:

- age – 43 years
- 84% men, 16% women
- main ethno-racial groups: white – 64%; black – 32%
- 77% of participants were taking ART
- CD4+ count – 472 cells/mm³
- 44% of ART users disclosed problems with adherence
- 51% of ART users had a viral load less than 50 copies/mL
- 41% of participants currently smoked tobacco
- 42% of smokers had been smoking for more than 20 years

Results—Viral load

As a group, smokers who used ART were less likely (60%) to have a suppressed viral load compared with former smokers (69%) and people who never smoked (65%).

Smoking and its association with mental health

Researchers found the following associations:

*Depression*

Smokers were more likely to have intense symptoms of depression compared to former smokers and people who never smoked but who also had depression.

*Anxiety*
Smokers were more likely to have symptoms of anxiety compared to former smokers and people who never smoked.

**Substance use**

Smokers were more likely to disclose that they were currently using street drugs compared to former smokers and people who never smoked.

**Bear in mind**

The present study found a high rate of smoking among HIV-positive people, which is similar to other studies of smoking in HIV-positive people. Researchers found that in their study smoking is associated with “other addictive and psychological symptoms, and demonstrates the negative impact that smoking has on HIV-infected individuals, particularly the influence on detectable viral load.”

Many other studies have found associations between smoking and reduced adherence to ART. This does not mean that smoking itself causes non-adherence. Rather, smoking can be thought of as a red flag indicating underlying and likely unaddressed or poorly managed mental health issues that can destabilize a person’s ability to adhere to ART and achieve and maintain an undetectable viral load. Studies of smoking in HIV-negative people have found that smoking is relatively common among people with mental health issues, so it should come as no surprise that smoking is also associated with similar issues among some HIV-positive people.

**For the future**

The findings from the present study underscore the need to design and conduct more studies that address mental health issues as part of smoking cessation programs for HIV-positive people. Treating the underlying drivers of substance use can help people experience better quality of life and put them on the path to better health and adherence, therefore maximizing the benefits of ART. Helping HIV-positive people break free from tobacco can improve their quality of life and reduce their risk for cancers, heart attack, stroke, lung problems and other conditions, and therefore likely prolong their lifespan.

**Resources**

**Smoking, addiction and breaking free**

- [How to Say “I Quit”—and Mean It](https://www.positiveside.org/how-to-stop-smoking) - *The Positive Side*
- [Smoking and tobacco](https://cancer.ca/alcohol-and-tobacco) - Canadian Cancer Society
- [How to Quit Smoking](https://www.lung.org/) - The Lung Association
- [Understanding tobacco addiction](https://catie.net/) - *CATIE News*
- [Varenicline—An Ontario study assesses safety in HIV-positive people](https://catie.net/) - *CATIE News*
- [Smoking cessation: Innovative group therapy–centered support found to double quit rate](https://catie.net/) - *CATIE News*
- [Danish study underscores link between heart attacks and smoking](https://catie.net/) - *CATIE News*

**REFERENCES:**


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