

Antiretroviral therapy can't completely stop accelerated cell aging seen in HIV

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Untreated HIV infection is linked with epigenetic changes that suggest rapid aging. A new study by UCLA researchers shows that antiretroviral therapy given over two years was unable to completely restore age-appropriate epigenetic patterns, leaving patients more susceptible to aging-related illnesses.

This is the first longitudinal study conducted to investigate the contribution of HIV-infection, versus treatment, on the acceleration of aging epigenetics—external factors that affect the function of genes—in this population of adults.

The researchers extracted DNA from 15 HIV-infected people at three points in time: 6 to 12 months prior to the initiation of antiretroviral therapy, 6 to 12 months after the beginning of therapy and, again, 18 to 24 months after being put on the therapy. They then compared those samples with DNA from 15 age-matched, non-HIV-infected individuals.

The researchers note some limitations to the study, including the [small sample size](#), their inability to adjust for other factors that might have influenced the results, and the fact that a larger study may be needed to detect more subtle [epigenetic changes](#) caused by [antiretroviral therapy](#).

The results suggest that altered epigenetics may help explain why even successfully treated HIV-infected adults are at an [increased risk](#) for the early development of many diseases more commonly associated with aging.

Provided by University of California, Los Angeles

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