

Detectable HIV Levels Don't Necessarily Increase the Risk of Cognitive Decline

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Having a viral load over 1,000 copies doesn't necessarily increase the risk for cognitive decline—at least in people with high CD4 counts—according to a study [published](#) online August 18 in the *Journal of Acquired Immune Deficiency Syndromes*.

Recent studies have suggested that people living with HIV are experiencing health problems associated with aging—such as a cognitive decline—at a younger age than their HIV-negative counterparts. Cognitive decline, which often includes problems with memory and reasoning, has been linked in some studies to higher viral loads. Thus, researchers have hoped that ARV treatment might reduce the risk for cognitive decline by keeping virus levels low.

To determine the impact of HIV levels on cognitive function, Gustavo Lopardo, MD, from the Fundación del Centro de Estudios Infectológicos in Buenos Aires, and his colleagues compared 158 HIV-positive people who were on ARV therapy with 102 who were not on treatment. Most of the participants were male, and the average age was 39 for those on treatment and 37 for those not on treatment.

The current average CD4 count was over 600 for both groups. The lowest ever CD4 count, however, differed greatly between the two groups: It was 246 for those on treatment and 493 for those not on treatment. Among those taking ARVs, the viral load was less than 50 copies in all patients compared with an average level of 21,000 among those not on ARVs.

Roughly half of those on treatment were taking a regimen that included efavirenz (found in [Sustiva](#) and [Atripla](#)), which can affect cognitive function in some people. Cognitive function was assessed using the International HIV Dementia Scale (IHDS). The maximum possible score is 12, which indicates the highest functioning, and the lowest is 0.

Contrary to expectations, it turned out that a higher viral load did not increase the likelihood that a person would have poorer cognitive function—at least in this group of people, all of whom had high CD4 counts. Those with a viral load less than 1,000 copies had an average IHDS score of 10.8, while those with a viral load over 1,000 had a score of 11. The only factor associated with a difference in IHDS score was age. People 44 and younger had an average score of 11, while those

45 and older had a score of 10.2.

The authors acknowledge that the IHDS is not designed to detect more subtle forms of cognitive disorder or other brain injury such as [neuropathy](#). More sophisticated tests might have resulted in a different conclusion. Their results, however, do indicate that virus levels do not appear to affect cognitive function in people with high CD4s.

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<http://beta.docker.poz.com/article/hiv-cognitive-brain-17148-4610>