

Exercise helps with better brain functioning in HIV-infected adults

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Regular exercise is not only good for health, but can give people living with HIV a significant mental boost. This is according to a study by Dr. David J. Moore and colleagues at the University of California, San Diego (UCSD), published in Springer's *Journal of NeuroVirology*. The study found that HIV-infected adults who exercise suffered significantly less neurocognitive impairment compared to patients who do not exercise.

Moore and his team, including UCSD medical student Catherine Dufour, found that HIV-infected adults who exercise were approximately half as likely to show signs of neurocognitive impairment as compared to those who do not. They also had better [working memory](#) and could process information faster than patients who follow a [sedentary lifestyle](#).

Despite recent advances in antiretroviral treatment, impaired brain functioning is a reality faced by nearly half of all people living with HIV. This ranges from asymptomatic neurocognitive impairment, to more pronounced deficits that interfere with daily functioning, such as problems with financial management, driving and taking medication regularly.

The major benefit of exercise to the brain seems to be the reduction of neurocognitive risk factors, such as [high blood pressure](#) and abnormally high levels of lipids in the blood. Metabolic syndrome associated with the use of antiretroviral treatment is also linked to an increase in cerebrovascular [risk factors](#), such as diabetes, hypertension and obesity.

In the study, 335 community-dwelling HIV-infected people were asked how much exercise they undertook during the previous 72 hours, and persons were classified into those who engaged in significant exercise (e.g., activities that make the heart beat rapidly) and those who did not. Seven cognitive areas commonly affected by HIV were tested, including [verbal fluency](#), working memory, speed of information processing, learning, recall, executive function and motor function.

The study extends prior findings about the link between exercise and cognition among HIV-infected people by showing that this association is also true in a diverse and large group of people living with the disease. Compounding factors were taken into account, such as demographics, HIV disease characteristics, substance use, past and current depression, mental health status and physical functioning.

"Exercise as a modifiable lifestyle behavior may reduce or potentially prevent neurocognitive impairment in HIV-infected persons," says Moore. "Physical exercise, together with other modifiable lifestyle factors such as education, social engagement, cognitive stimulation and diet could be fruitful interventions to support people living with HIV."

More information: Dufour, C.A. et al (2013). Physical exercise is associated with less neurocognitive impairment among HIV-infected adults, *Journal of NeuroVirology* [DOI: 10.1007/s13365-013-0184-8](https://doi.org/10.1007/s13365-013-0184-8)

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