

Highly active antiretroviral therapies may be cardioprotective in HIV-infected children, teens

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Long-term use of highly active antiretroviral therapies (HAART) does not appear to be associated with impaired heart function in children and adolescents in a study that sought to determine the cardiac effects of prolonged exposure to HAART on children infected with the human immunodeficiency virus (HIV), according to a report published Online First by *JAMA Pediatrics*.

Prior to contemporary [antiretroviral therapies](#) (ARTs), children infected with HIV were more likely to have heart failure.

Steven E. Lipshultz, M.D., of the University of Miami Leonard M. Miller School of Medicine, Florida, and colleagues used statistical models to compare echocardiographic measures in the National Institutes of Health-funded Pediatric HIV/AIDS [Cohort Study](#)'s Adolescent Master Protocol (AMP).

The study included 14 pediatric HIV clinics in the United States. The participants were 325 perinatally HIV-infected children receiving HAART; 189 HIV-exposed but uninfected children; and 70 HIV-infected (mostly HAART-unexposed) historical pediatric controls patients from the National Institutes of Health-funded Pulmonary and Cardiovascular Complications of Vertically Transmitted [HIV Infection](#) (P2C2-HIV) Study.

"Our results indicate that the current use of combination ART, usually HAART, appears to be cardioprotective in HIV-infected children and adolescents. This finding is even more relevant in the developing world where the prevalence of HIV disease in children is much higher," the study notes.

Scores for left ventricular (LV) fractional shortening (a measure of cardiac function) were significantly lower among HIV-infected children from the P2C2-HIV Study than among the AMP HIV-infected group or the 189 AMP HIV-exposed but uninfected controls, the study results indicate. The results also show that for HIV-infected children, a lower nadir CD4 percentage and a higher current viral load were associated with significantly lower cardiac function.

"This study suggests that highly active ART (HAART) does not appear to impair [heart function](#)," the study concludes.

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