

# Anti-HIV drug for adults is safe, effective in children exposed to nevirapine in the womb

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HIV-infected children exposed in the womb to nevirapine, a drug used to prevent mother-to-child HIV transmission, can safely and effectively transition to efavirenz, a similar drug recommended for older children and adults, according to a study funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), part of the National Institutes of Health.

Efavirenz is used as part of HIV therapy for adults and [children](#) older than three years of age. A different class of anti-HIV drugs, lopinavir/ritonavir, is recommended for infants and young children. Switching children to efavirenz offers several advantages, including once-daily dosing, easier storage, better taste, and lower cost. Prior to the new study, however, doctors lacked guidance on when to switch to efavirenz. There also was concern that efavirenz may be less effective in children exposed to nevirapine because the drugs attack HIV in similar ways, leading to potential drug resistance.

Researchers led by Louise Kuhn, Ph.D., of Columbia University, conducted a [randomized clinical trial](#) in Johannesburg, South Africa, to evaluate whether or not nevirapine-exposed children, who have their infection under control, can transition to efavirenz without risk of the virus rebounding and becoming detectable in blood. Approximately 300 boys and girls at least 3 years old were followed for 48 weeks, with half continuing on lopinavir/ritonavir and the other half switching to efavirenz.

The team found that both groups of children had similar rates of viral rebound—26 in the efavirenz group and 42 in the lopinavir/ritonavir group, suggesting that switching to efavirenz is effective. Furthermore, the efavirenz group had higher levels of CD4 T cells, key immune cells wiped out by HIV, and better liver function, suggesting that efavirenz is less toxic and safer than lopinavir/ritonavir. The researchers are currently conducting a follow-up study to evaluate the long-term effects of switching to efavirenz.

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Provided by NIH/Eunice Kennedy Shriver National Institute of Child Health and Human Development

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