

HIV has been cured in a child for the first time

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In a monumental first for medicine, doctors announced today that a baby has been cured of an HIV infection. Dr. Deborah Persaud, who presented the child's case today at the 20th annual Conference on Retroviruses and Opportunistic Infection, called it "definitely a game-changer."

Persaud, of Johns Hopkins University Medical School, is the lead author of a report recounting the child's treatment. The identity of the little girl, who was born to an HIV-positive woman in rural Mississippi, has yet to be released. What we do know is that she is only the second person in the world – and the first child – to be cured of HIV in its devastating 32-year history. If the case is confirmed, it is truly unprecedented.

The abstract for Persaud's presentation ([which can be found in its entirety here](#)) provides details of the child's treatment, which involved very early administration of antiretroviral therapy (ART), initiating treatment when the child was just **30 hours old** (emphasis added):

Methods: Infant exposure to HIV was confirmed through review of maternal HIV antibody and plasma viral load tests, including HIV drug resistance testing. Infant infection was documented using standard HIV DNA polymerase chain reaction (PCR) and plasma viral load. ART administration was confirmed with medical and pharmacy records and maternal report of medication adherence. Persistence of HIV infection following treatment discontinuation was assessed using standard

clinical assays that included plasma viral load, proviral DNA, and HIV antibody testing. Ultrasensitive HIV DNA (droplet digital PCR), plasma viral load (single copy) assays, and quantitative co-culture assays were done at age 24 and 26 months to further assess HIV persistence. HLA typing was done to confirm matching of the mother–infant pair.

Results: Maternal infection with wild type subtype B HIV was verified. The mother and infant shared HLA haplotypes. Infant infection was confirmed by positive HIV DNA and RNA testing on 2 separate blood samples obtained on the 2nd day of life. 3 additional plasma viral load tests (days of life 7, 12, and 20) were positive before reaching undetectable levels at age 29 days.

The child, who is now 2 and a half years old, has reportedly been off drugs for a year. Still, her blood tests continue to show no signs of a functioning virus.

The authors' conclusions say it all: "This is the first well-documented case of functional cure in an [HIV-positive] child and suggests that very early [antiretroviral therapies] may prevent establishment of a latent reservoir and achieve cure in children.

We'll keep you posted as more info comes to light. In the meantime, read the researchers' account of the girl's case at CROI: ["Functional HIV Cure after Very Early ART of an Infected Infant."](#) See also: these general overviews by [NPR](#) and the [NYT](#).