# Early HIV Treatment Advantage Is Lost If Treatment Is Interrupted

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The immune recovery benefits conferred by starting antiretrovirals (ARVs) for HIV shortly after infection are lost if treatment is later interrupted, aidsmap reports. In a recent study, there was no difference in terms of immune reconstitution between those who started treatment immediately and later interrupted it for a time and those who waited to start treatment. Publishing their findings in the journal AIDS, French researchers measured the CD4 to CD8 cell counts, and determined the ratio between them, among 727 HIV-positive people in the PRIMO cohort study.

CD4 cells are also known as “T-helper” cells, and are key to instigating the body’s immune response to an infection. CD8, or “T-suppressor,” immune cells are involved in killing off infected cells. Healthy HIV-negative people HIV typically have more CD4s than CD8s, meaning their CD4 to CD8 ratio is greater than 1.0—usually between 1.0 and 2.0. The ratio for an HIV-positive person is typically below 1.0.

Thirty-four percent of the study group (244 people) started treatment shortly after infection, within an average of 1.3 months. Fifty-three percent of them later interrupted treatment once, while the remaining 47 percent interrupted treatment more than once.

Thirty percent of the cohort (218 people) deferred treatment, starting ARVs an average of about two and a half years after infection.

The remaining 36 percent of the study group (265 people) started treatment shortly after contracting HIV and remained on ARVs continuously.

All of the individuals in the study were on treatment at the time of the study. The researchers excluded from their analysis 77 people who were not taking ARVs, as well as 30 people who deferred starting treatment and then later interrupted it.

Those who started ARVs early and remained on them without stopping had an average CD4 count of 731 cells, which was 125 cells higher than those in the deferred treatment group and 106 cells higher than those who started treatment early only to interrupt it later.

The early, continuous treatment group had a CD4 to CD8 ratio that was 0.27 higher than either of the two other groups. Sixty-four percent of those treated early and continuously achieved a ratio

greater than 1.0, compared with just 40 percent in the deferred group and 36 percent in the treatment interruption group.

In the two groups that started treatment early, the average CD4 to CD8 ratio was 0.41 when they were diagnosed with HIV, compared with 0.58 in the deferred treatment group, which had an average ratio of 0.36 upon starting ARVs. Those who started early and remained on treatment eventually had a ratio of 1.17, compared with 0.94 in the deferred treatment group and 0.88 in the treatment interruption group.

To read the aidsmap story, click here.

To read the study abstract, click here.

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