



Inadequate CD4 Recovery Linked to More Clinical Events

People with a CD4 count below 200 after starting treatment had a sevenfold higher risk for AIDS-defining events.

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People who don't experience full CD4 T-cell recovery after starting antiretroviral treatment remain susceptible to both AIDS-defining clinical events and non-AIDS infections, according to a recent review. Antiretrovirals halt HIV replication, allowing CD4 cells to recover, but around 15% to 20% of people who start treatment with a very low count never reach a normal level of 500 or higher.

A meta-analysis of 15 relevant studies with a combined total of 188,945 participants showed an inverse correlation between CD4 cell levels and morbidity. People with a CD4 count below 200 after starting treatment had a sevenfold higher risk for AIDS-defining events, while those with a count of 200 to 350 had a 63% elevated risk compared with people whose count reached 500 or higher. For non-AIDS infections, people with a CD4 count below 200 had nearly a threefold higher risk, while those in the 200 to 350 range had a 50% higher risk. But noninfectious non-AIDS clinical events did not differ significantly between people with good and poor CD4 cell recovery.

Indeed, research shows that people with HIV—even those on effective treatment with a normal CD4 count—are more prone to non-AIDS comorbidities, such as heart disease and kidney disease. The lack of a link between CD4 count and noninfectious non-AIDS events “highlights the need for comprehensive care that addresses other risk factors beyond immunological recovery,” the study authors concluded.

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