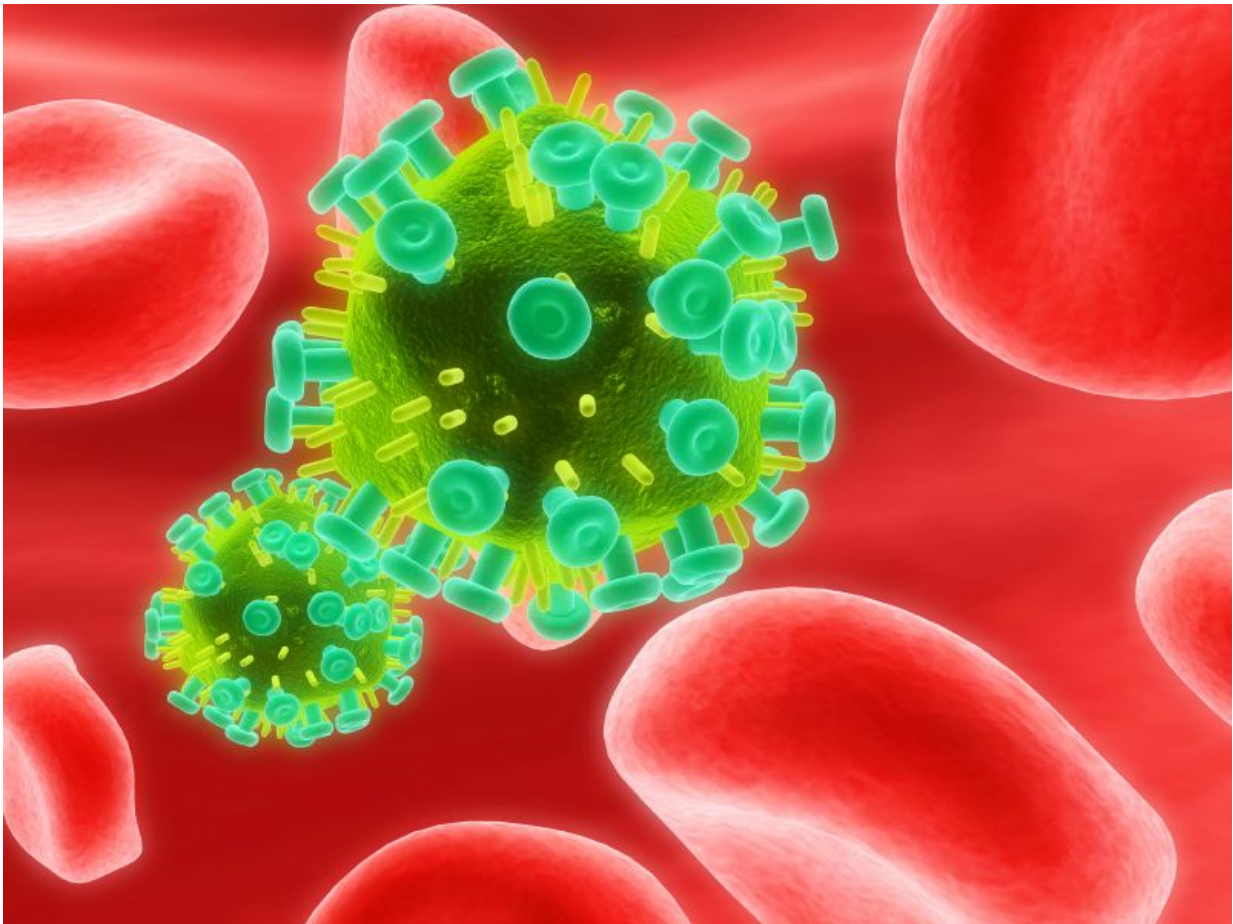


# HIV infection negatively affects bone acquisition

June 15 2016

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(HealthDay)—HIV infection with T cell activation is associated with

lower bone mineral density (BMD) and stiffness, according to a study published online June 10 in the *Journal of Bone and Mineral Research*.

John S. Manavalan, M.D., from the Columbia University Medical Center in New York City, and colleagues used dual X-ray absorptiometry (DXA) and high-resolution peripheral quantitative computed tomography (HRpQCT) to characterize BMD and microarchitecture in 38 HIV-infected men on antiretroviral therapy (18 perinatally-infected and 20 adolescence-infected) and 20 uninfected men aged 20 to 25 years.

The researchers found that, compared with uninfected men, HIV-infected men had lower DXA derived areal BMD Z-scores and HRpQCT derived volumetric BMD measures. HIV-infected men had higher proportions of activated and senescent CD4+ and CD8+ T cells compared with uninfected men. HIV-infected men had a lower percentage of circulating osteogenic precursor (COP) cells than uninfected men ( $0.19 \pm 0.02$  versus  $0.43 \pm 0.06$  percent; P stiffness and a lower proportion of COP [cells](#).

"T cell activation with HIV-infection was associated with decreased numbers of osteogenic precursors as well as lower peak bone mass and [bone](#) strength," the authors write.

One author disclosed financial ties to Gilead and AbbVie.

**More information:** [Abstract](#)  
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Citation: HIV infection negatively affects bone acquisition (2016, June 15) retrieved 2 May 2024

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