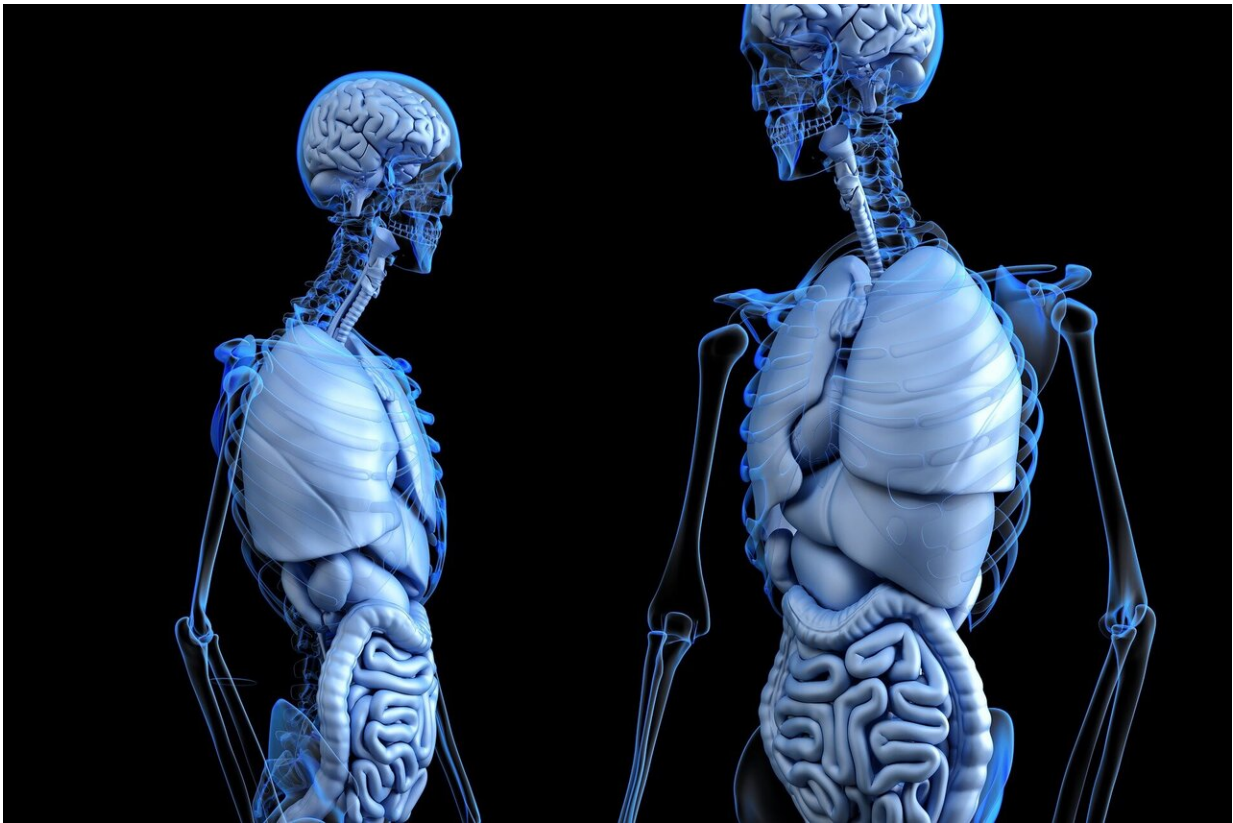


# Lower than expected risk of bone density decline with Truvada PrEP

July 15 2019

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Researchers have shown that among users of pre-exposure prophylaxis (PrEP) to prevent against AIDS that includes tenofovir (Truvada), those with daily use—very high adherence—had only about a 1% average

decrease in bone mineral density in the spine and a 0.5% decline in the hip. The study findings and the implications for the lower than expected results on the potential for broader use of Truvada in PrEP and in AIDS treatment are explored in an article published in *AIDS Research and Human Retroviruses*, a peer-reviewed journal from Mary Ann Liebert, Inc., publishers.

Matthew Spinelli, University of California, San Francisco and a large team of researchers coauthored the article entitled "Impact of Estimated Pre-Exposure Prophylaxis (PrEP) Adherence Patterns on Bone Mineral Density in a Large PrEP Demonstration Project." Declines in [bone mineral density](#) with regular tenofovir use are an ongoing concern and may be limiting PrEP. The researchers in this study used estimated PrEP adherence data and measurements of bone density using X-ray absorptiometry (DXA). The data were gathered over a median of 24 weeks.

Thomas Hope, Ph.D., Editor-in-Chief of *AIDS Research and Human Retroviruses* and Professor of Cell and Molecular Biology at Northwestern University, Feinberg School of Medicine, Chicago, IL states: "Correct use of Truvada-based PrEP has been shown to significantly protect individuals from HIV acquisition. However, previous studies in individuals using Truvada for treatment raised possible concerns about decreases in bone density. Such concerns could decrease the number of individuals using PrEP. In the study presented here, only minor changes in bone density were observed indicating that young healthy individuals using Truvada for PrEP have only a minimal risk of decreased bone density and increased fractures. However, individuals at highest risk for fracture may consider alternative PrEP formulations such as DESCOVY (TAF/FTC). This new knowledge should facilitate increased PrEP utilization in high risk populations."

**More information:** Matthew A. Spinelli et al, Impact of Estimated Pre-

Exposure Prophylaxis (PrEP) Adherence Patterns on Bone Mineral Density in a Large PrEP Demonstration Project, *AIDS Research and Human Retroviruses* (2019). [DOI: 10.1089/aid.2018.0297](https://doi.org/10.1089/aid.2018.0297)

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