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Prognostic Factors of Physical Function Decline Among Middle-Aged Adults with HIV

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Background

The REPRIEVE ancillary study, Pitavastatin to Reduce Physical Function Impairment and Frailty in HIV (PREPARE), found small declines in physical function broadly among people with HIV (PWH). However, changes in physical function varied greatly among individual patients.

Goals of the Study

Our goal was to identify people with HIV at greatest risk for physical function decline.

REPRIEVE enrolled people with HIV (PWH) between ages 40-75 with low-to-moderate traditional heart disease risk, randomized these participants to a statin medication called pitavastatin or to placebo (a pill that contains no medication), and followed these participants for, on average, 5 years, to see if they developed heart disease events like a heart attack or stroke. Main findings from REPRIEVE were that [statin therapy reduced heart disease events among PWH by 36%](#), prompting guideline changes recommending statin use in PWH aged ≥ 40 years.

The PREPARE ancillary study of REPRIEVE was to determine the effects of pitavastatin on physical and muscle function.

➤ The participants:

- 569 participants co-enrolled in both REPRIEVE and PREPARE, with physical function assessments available at two or more study timepoints
 - 299 participants taking pitavastatin, 270 taking placebo
 - Median age at enrollment: 51 years
 - 81% male, 19% female

The Findings:

- Half of participants had a decline in physical function
- The risk of physical function decline was higher among females, non-whites, and tended to increase with age
- When taking into account age, sex, and origin, there was a greater risk of physical function decline among those with a history of depression treatment, higher body mass index (BMI), pre-existing physical impairment, physical frailty, and higher blood levels of hs-CRP and IL-6, which are markers of inflammation in the body, at entry into the study.

In Summary: Among people with HIV in the REPRIEVE and PREPARE studies, those with a history of depression treatment, high BMI, or high levels of inflammation, and those showing early signs of physical function impairment may benefit from early interventions to protect physical function with aging.

REPRIEVE Trial Website: reprievetrial.org

The findings shared in this summary are from the REPRIEVE population at a specific point in time. These findings are descriptive and not intended to change clinical care. If you have questions about what you've read, please talk to members of the REPRIEVE study team at your local site or a health care provider