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Heart Disease Risk and Heart Health Among People with HIV Eligible for Primary Prevention: Insights from the REPRIEVE Trial

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Link to full article: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2781497>

As survival among persons with HIV (PWH) has improved, heart disease has become an important cause of illness and death. Careful assessment of risk factors and of health behaviors can guide medication use and lifestyle changes which can reduce risk and prolong life. However, the accuracy of well-established heart disease risk scores has not been tested among PWH. Similarly, health behaviors have not been well categorized in PWH, nor do we know how they relate to risk.

- **The participants:**
 - 7382 REPRIEVE participants total
 - Average age: 50 years
 - 31% were natal female (female at birth)
- **Heart Disease Risk Score in PWH:** The most commonly used heart disease risk score, the American College of Cardiology/American Heart Association Pooled Cohort Equations (PCE), uses age, sex, race, high blood pressure, diabetes, high LDL cholesterol, and smoking to predict the chance of a person having a heart disease event in the next ten years. The median score was relatively low at 4.5% (indicating a less than 5% chance of having a heart disease event (like a heart attack over the next 10 years) and almost a third had a risk score in the lowest possible risk category (below 2.5%)
- **Heart Health Score in PWH:** Investigators used the American Heart Association's Life's Simple 7, which includes smoking, diet, physical activity, body mass index, blood pressure, total cholesterol, and glucose, to evaluate heart health. The median score was 9 (out of a possible 14). One third of participants had two or fewer ideal behaviors; only 105 (1.4%) participants had 5 or more ideal behaviors.
- **How heart disease risk score related to heart health score:** Health behaviors were often poor (especially diet and physical activity) even among participants with the lowest heart disease risk score.

In summary: investigators found that the score most commonly used to measure heart disease risk did not capture common unhealthy behaviors in PWH, including poor diet, high body mass index (BMI), and low physical activity. These behaviors were common among REPRIEVE participants, regardless of traditional heart disease risk, suggesting that lifestyle interventions may be important in PWH to prevent heart disease, and should be used together with conventional treatment.



REPRIEVE Trial Website: reprivetrial.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