

**Clinical Coordinating Center**  
Massachusetts General Hospital  
50 Staniford St, Suite 750  
Boston, MA 02114

**Data Coordinating Center**  
Massachusetts General Hospital  
165 Cambridge Street Suite 400  
Boston, MA 02114

# Diabetes Risk Factors in People With HIV Receiving Pitavastatin Versus Placebo for Cardiovascular Disease Prevention

Kathleen Fitch, Markella Zanni, Jennifer Manne-Goehler, Heather Ribaud, Steve Grinspoon, and colleagues

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## Background

The global REPRIEVE trial showed that pitavastatin calcium reduced major heart-related events in people with HIV (PWH), but it also slightly increased the risk of developing diabetes. Diabetes is a key concern for PWH because they may have unique risks due to some antiretroviral therapy, changes in body composition, and other factors. Therefore, we studied how statins affect diabetes among participants from the REPRIEVE trial.

## Goals of the Study

To determine the safety of statins among PWH, including statin effects on new onset diabetes during trial participation.

### ➤ The participants:

- 7,731 participants
  - 414 participants with new onset diabetes (232 taking pitavastatin; 182 taking placebo)
  - 2,410 (31%) women
  - 5,041 (65%) Non-White
- Median duration of follow-up: 5.6 years
- Median age at enrollment: 50 years

### ➤ The findings:

- Participants with at least three diabetes risk factors compared to no diabetes risk factors had an increased risk for diabetes (incidence rate, 3.24 versus 0.34 per 100 person-years in the pitavastatin group and 2.66 versus 0.27 per 100 person-years in the placebo group).
- The highest risk for diabetes was observed in the South Asia region.
- High body mass index, prediabetes, and [metabolic syndrome](#) components (elevated waist circumference, reduced HDL (“good”) cholesterol levels, and elevated triglyceride levels (fats in the blood)) were linked with a higher chance of developing diabetes.
- Among participants living in high income regions, Black individuals had higher diabetes incidence rates than White and Asian individuals, both in the pitavastatin and placebo groups.
- The risk of experiencing a major adverse cardiovascular event, like heart attack or stroke, among those with diabetes was lower with pitavastatin use (3.28 per 1,000 PY) compared to placebo use (12.4 per 1,000 PY).

**In Summary:** These findings emphasize the importance of comprehensive strategies to reduce diabetes risk in PWH, particularly in regions and racial groups at higher risk, such as through healthy eating and regular exercise. For PWH who are at a healthy weight and do not have prediabetes, the overall risk of developing diabetes while taking statins is low. These results can help guide the use of statins to prevent heart disease in PWH and also address diabetes risk in those who are more vulnerable.

REPRIEVE Trial Website: [reprivetrial.org](http://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*