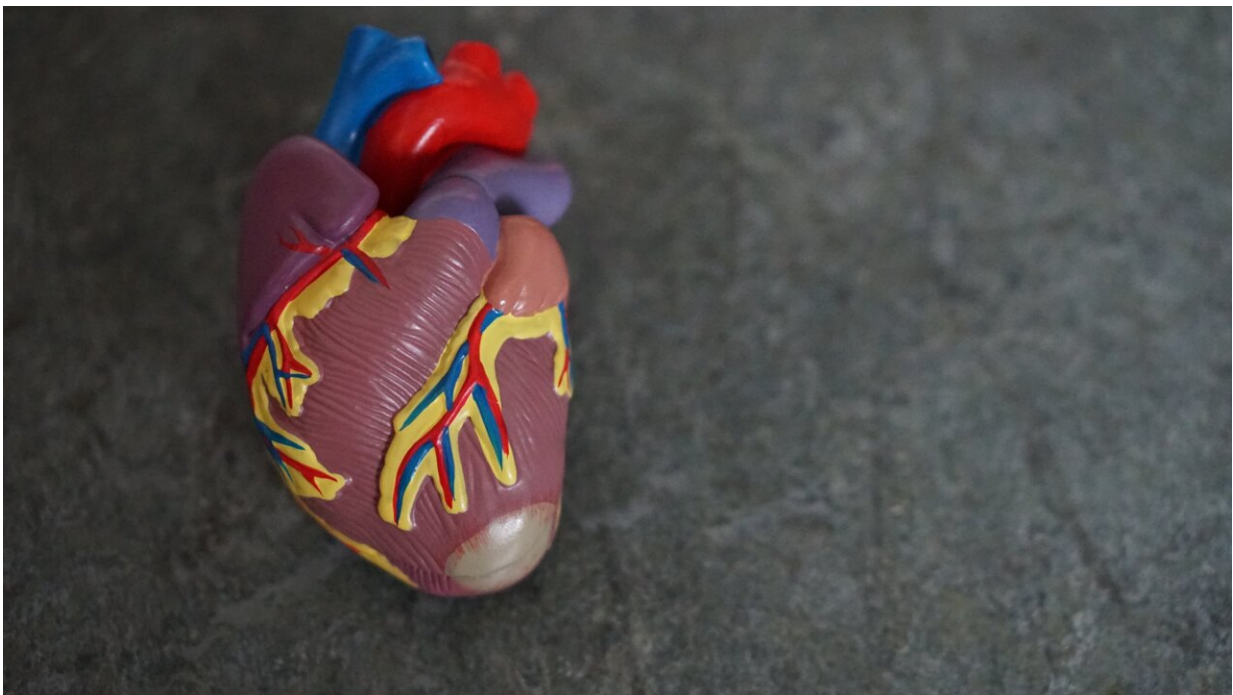


# Study finds cardiovascular risk score improves after one year of semaglutide use in patients with overweight and obesity

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New research presented at this year's European Congress on Obesity in Dublin, Ireland shows that patients treated with the obesity drug semaglutide have a decreased cardiovascular risk score after one year of use. The study is by Dr. Andres Acosta and Dr. Wissam Ghusn,

Precision Medicine for Obesity Program at the Mayo Clinic, Rochester, MN, U.S. and colleagues.

Obesity is a major risk factor for the development of abnormal blood fat levels, type-2 diabetes mellitus (T2DM), [high blood pressure](#), and obstructive sleep apnea. These comorbidities are associated with an increased risk of cardiovascular disease (CVD) that represents the leading cause of death globally. Hence, there is a significant need to prevent CVD by targeting excess adiposity in patients with overweight or [obesity](#).

Semaglutide is a recently approved anti-obesity medication whose cardiovascular impact in patients with and without T2DM is not well established. In this new research, the authors analyzed the real-world effect of semaglutide use on the risk of CVD in patients with overweight or obesity.

They performed a multicenter [retrospective study](#) of 93 patients with a [body-mass index](#) (BMI)  $27 \text{ kg/m}^2$  or higher, age between 40-79 years, and no prior history of CVD. They collected baseline demographic, clinical, and blood fat data to calculate the 10-year atherosclerotic cardiovascular disease (10-year ASCVD) risk at baseline (i.e., before starting semaglutide) and 1 year after semaglutide initiation.

The score used is the 10-year ASCVD risk estimator created by the American College of Cardiology. The primary end point included calculating the difference in ASCVD score between baseline and after 1 year of starting semaglutide. Secondary outcomes included metabolic parameters and medication use.

Of the 93 participants, 69% were female, and the mean age was 55 years. Almost all (91%) were White. The mean BMI was  $39.8 \text{ kg/m}^2$ , on the borderline between class II and class III obesity.

There was a significant decrease in the 10-year ASCVD risk between baseline and 1 year: 7.64% vs. 6.26%, a drop of 1.38%. The following parameters decreased significantly: [blood pressure](#) by 9.3/4.9 mmHg (for systolic and diastolic), total cholesterol by 9.5 mg/dL; LDL by 6.6 mg/dL, triglycerides by 20.0 mg/dL, fasting glucose by 23.0 mg/dL, and HbA1c (a measure of blood sugar control) by 0.72%.

There was no significant change in use of blood pressure medications, statins, or aspirin between baseline and last follow-up. The total % body weight loss associated with semaglutide use at 12 months was 10.9% (across 41 patients for whom weight data was available at 12 months).

The authors conclude: "Use of semaglutide in patients with overweight or obesity is associated with a decrease in the 10-year ASCVD risk. Although modest after just one year of use, this decrease may translate into decreased cardiovascular morbidity and mortality risk over time with continuing weight loss. More studies, with larger sample sizes and longer follow-up periods, are needed to assess the cardiovascular outcomes of semaglutide."

The authors are considering carrying out longer term studies to see if the effect of semaglutide on cardiovascular risk extends/changes over time.

**More information:** Confernce: [eco2023.org/](https://eco2023.org/)

Provided by European Association for the Study of Obesity

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