

Semaglutide reduces risk for major adverse cardiovascular events in patients with obesity and heart failure

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Semaglutide reduces the risk for major adverse cardiovascular events (MACE) and composite heart failure end points compared with placebo

in patients with overweight or obesity and heart failure, according to a study [published](#) online Aug. 24 in *The Lancet*.

John Deanfield, M.B., from the Institute of Cardiovascular Sciences at University College London, and colleagues examined whether semaglutide is beneficial for patients with [atherosclerotic cardiovascular disease](#) with a history of heart failure in a phase 3 trial conducted in 41 countries. The study included 17,604 patients (age, 45 years and older; [body mass index](#), ≥ 27 kg/m²) who were randomly assigned to receive semaglutide or placebo (8,803 and 8,801 patients, respectively).

Overall, 24.3% of patients had a history of investigator-defined heart failure at enrollment: 53.0, 31.4, and 15.5% had heart failure with preserved ejection fraction, heart failure with reduced ejection fraction, and unclassified heart failure, respectively. The researchers found that the incidence of clinical events was higher for patients with heart failure.

All outcome measures (MACE, heart failure composite end point, cardiovascular death, and all-cause death) were improved with semaglutide for patients with versus without heart failure. In both the groups with heart failure with reduced ejection fraction and heart failure with preserved [ejection fraction](#), semaglutide treatment resulted in improved outcomes in MACE and the composite heart failure end point.

"A large population of patients with atherosclerotic cardiovascular disease who have overweight or obesity and [heart failure](#) could benefit from semaglutide, without the need for previous detailed cardiovascular risk stratification," the authors write.

Several authors disclosed ties to pharmaceutical companies, including Novo Nordisk, which manufactures semaglutide and funded the study.

More information: John Deanfield et al, Semaglutide and

cardiovascular outcomes in patients with obesity and prevalent heart failure: a prespecified analysis of the SELECT trial, *The Lancet* (2024). [DOI: 10.1016/S0140-6736\(24\)01498-3](https://doi.org/10.1016/S0140-6736(24)01498-3)

Muthiah Vaduganathan, GLP-1 receptor agonists in heart failure, *The Lancet* (2024). [DOI: 10.1016/S0140-6736\(24\)01598-8](https://doi.org/10.1016/S0140-6736(24)01598-8)

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