

# Obesity negates beneficial drug effects

9 November 2018, by Roslin Thoppil



**More information:** Lin Zhu et al. CETP Inhibition Improves HDL Function but Leads to Fatty Liver and Insulin Resistance in CETP-Expressing Transgenic Mice on a High-Fat Diet, *Diabetes* (2018). [DOI: 10.2337/db18-0474](https://doi.org/10.2337/db18-0474)

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Blocking CETP—a protein that shuttles cholesterol and triglycerides between lipoproteins such as HDL and LDL—has been shown to improve levels of the "good" cholesterol HDL. Outcomes from clinical trials of CETP inhibitors, however, have not demonstrated robust decreases in the risk of cardiovascular disease.

Because many participants in the CETP inhibitor trials were obese, Lin Zhu, MD, PhD, John Stafford, MD, PhD, and colleagues wondered if obesity affected the response to CETP inhibition. To explore this, they studied the effects of anacetrapib, a CETP inhibitor, in [transgenic mice](#) expressing CETP. They report that although CETP inhibition improved HDL levels in diet-induced obese mice, it increased liver inflammation and worsened insulin resistance compared to mice on a low-fat diet.

Their findings, reported in the journal *Diabetes*, suggest that the effects of CETP inhibition on HDL functionality are greatly influenced by high-fat diet-induced obesity and hyperlipidemia, possibly counterbalancing the potential benefits of CETP loss in reducing risk of [cardiovascular disease](#).

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