

Do GLP-1 Medications Improve Breast Cancer Survival?

Weight-loss and diabetes meds may offer protective benefits for breast cancer patients with obesity and related metabolic conditions.

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Use of popular weight-loss drugs was associated with improved survival and reduced risk of recurrence for women with [breast cancer](#) and obesity or type 2 diabetes, according to study results published in [JAMA Network Open](#). While this study was observational rather than randomized, it adds to the growing evidence that GLP-1 agonists and related medications have benefits beyond weight loss.

“This study suggests that GLP-1 drugs may offer protective benefits potentially improving survival and recurrence risk in some female patients with breast cancer,” senior study author Bernard Fuemmeler, PhD, MPH, of Virginia Commonwealth University Massey Comprehensive Cancer Center said in a [news release](#). “Whether this is related to weight control, improved cardiovascular health or other mechanisms remains to be studied.”

Overweight and obesity have been linked to [at least 13 types of cancer](#), including breast, colon, liver and pancreatic cancers. [Losing weight](#) has been shown to reduce cancer risk, and [increasing evidence](#) suggests that weight-loss medications may play a role in preventing cancer and improving prognosis.

Glucagon-like peptide-1 (GLP-1) receptor agonists, such as semaglutide (Ozempic or Wegovy), were originally developed to treat type 2 diabetes and were later approved for obesity. Tirzepatide (Mounjaro or Zepbound) targets both GLP-1 and a second gut hormone called GIP. These medications stimulate insulin production, regulate appetite and slow emptying of the stomach; they also appear to have anti-inflammatory properties and other beneficial effects that are not yet fully understood.

Fuemmeler and colleagues assessed the association between GLP-1 agonists use and breast cancer outcomes, including all-cause mortality and recurrence-free survival after five and 10 years of follow-up. This retrospective cohort study included data from nearly 842,000 women with obesity or type 2 diabetes in the TriNetX U.S. Collaborative Network, comprising 68 healthcare organizations, who were diagnosed with breast cancer between April 2006 and April 2023. The

average age was around 65 years, and a majority were white.

Of these, 1,610 patients with obesity (body mass index of 30 or higher) were included in the comparison of GLP-1 use versus nonuse; 2,323 people with diabetes were included in a comparison of GLP-1 agonists versus insulin or metformin; and 4,052 diabetic patients were included in a comparison of GLP-1 agonists versus sodium-glucose cotransporter 2 (SGLT2) inhibitors—drugs such as dapagliflozin (Farxiga) and empagliflozin (Jardiance). The specific GLP-1 agonists used were not specified, but given the study's time frame, it is likely that many participants used older drugs and few used tirzepatide.

The researchers found that among women with obesity, those who used GLP-1 agonists had significantly lower risk of death from any cause and reduced risk of cancer recurrence compared with nonusers. Over 10 years, all-cause mortality was reduced by 65% and recurrence-free survival increased by 56%. Women with diabetes who used GLP-1 agonists saw an even greater risk reduction compared with those who used insulin or metformin, but there was no significant difference when comparing GLP-1 meds and SGLT2 inhibitors. Improvements were already apparent after five years of follow-up.

“In this cohort study of patients with breast cancer, findings suggested a potential association between GLP-1 receptor agonist use and improved outcomes among patients with breast cancer who have obesity and related metabolic conditions,” the study authors concluded.

As newer GLP-1 and related medications, including oral options, become available, “it is unclear how the changing landscape might affect cancer outcomes,” they wrote. “Our study underscores the potential of GLP-1 receptor agonists as an adjunct strategy for improving cancer-related outcomes among patients with breast cancer, although clinical trials are needed to inform effective therapeutic approaches and clinical decision-making.”

Click here for more news about [weight-loss medications](#).