Comparing weight-loss drugs Ozempic and Mounjaro

With about half a dozen drugs to choose from now and more in development, many doctors say these medications are revolutionizing treatment of obesity, type 2 diabetes and other metabolic diseases.

But keeping the options straight can be a challenge. Though the new drugs may tout similar end results and side effects, doctors say different ones may be most appropriate for different people.

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The first generation of GLP-1 receptor agonists achieved less than 10 percent weight loss on average. Newer medications can help people lose around 15 percent of their body weight, says endocrinologist and diabetes researcher Dimitris Papamargaritis of the University of Leicester in England.

That step up came with the FDA approval of a new GLP-1 receptor agonist called semaglutide, best known as a weekly injection to treat type 2 diabetes that is sold under the brand name Ozempic. The drug was first approved for that purpose in 2017 and was then approved as a type 2 diabetes pill called Rybelsus and, most recently, as an injection to treat obesity called Wegovy.

A new player called tirzepatide joined the GLP-1 receptor agonist game in 2022. This drug was first approved for treating type 2 diabetes under the name Mounjaro, and late last year it was approved for weight loss as Zepbound. Tirzepatide is the first agonist to interact with a second receptor, called glucose-dependent insulinotropic polypeptide, or GIP, which affects insulin levels and blood sugar similarly to GLP-1.

This dual action likely allows tirzepatide to control blood sugar better than its predecessors. Clinical trials show the drug can help people lose 20 percent or more of their body mass—more than any previously approved agonists.

Credit: Amanda Montañez; Source: “Comparative Effectiveness of GLP-1 Receptor Agonists on Glycaemic Control, Body Weight, and Lipid Profile for Type 2 Diabetes: Systematic Review and Network Meta-Analysis,” by Haiqiang Yao et al., in BMJ, Vol. 384, Article No. e076410. Published online January 29, 2024

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