

How does a diabetes drug lessen symptoms of depression?

MARCH 6, 2024 - Research in animals has shown that the diabetes drug dulaglutide, which is a glucagon-like peptide-1 (GLP-1) receptor agonist may reduce symptoms of depression. A new study published in *Brain and Behavior* reveals the mechanisms that are likely involved.

By conducting a range of tests in mice treated with and without dulaglutide, investigators confirmed the effects of dulaglutide on depressive-like behaviors, and they identified 64 different metabolites and four major pathways in the brain associated with these effects.

Markers of depression and the antidepressant effects of dulaglutide were linked to lipid metabolism, amino acid metabolism, energy metabolism, and tryptophan metabolism.

“These primary data provide a new perspective for understanding the antidepressant-like effects of dulaglutide and may facilitate the use of dulaglutide as a potential therapeutic strategy for depression,” the authors wrote.

Link to Study: <https://onlinelibrary.wiley.com/doi/10.1002/brb3.3448>

Full citation: “Dulaglutide treatment reverses depression-like behavior and hippocampal metabolomic homeostasis in mice exposed to chronic mild stress.” Man Jin, Shipan Zhang, Boya Huang, Litao Li, Hao Liang, Aihua Ni, Lina Han, Peng Liang, Jing Liu, Haishui Shi, Peiyuan Lv. *Brain and Behavior*. Published Online: 06 March 2024 (DOI: 10.1002/brb3.3448).

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