

# Combination of drugs for obesity and type 2 diabetes may be more effective than a single therapy

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Canadian and German researchers are teaming up to identify new drug combinations to treat people with obesity and type 2 diabetes.

The goal is to develop personalized prescriptions that are more effective than single drugs and that can potentially replace more invasive treatments such as [bariatric surgery](#), especially for children.

"As a pediatric endocrinologist, I can tell you we're seeing more and more type 2 diabetes in kids and adolescents, and it seems to be a more aggressive form than adult onset diabetes, so we do need better therapies to achieve even greater efficacy and degree of weight loss," said Andrea Haqq, a professor in the University of Alberta's Faculty of Medicine & Dentistry.

The researchers recently published a paper that examines the potential of several drugs that control incretins. These metabolic hormones stimulate the body to produce insulin and use it effectively. They also suppress appetite in order to control blood sugars and reduce weight.

The researchers conclude that combining the drugs has several advantages, including higher effectiveness in at least some patients and fewer side-effects.

Even a five percent weight loss is considered clinically meaningful, and patients in some of the combination drug trials are achieving 10 or 15 percent, said Haqq, who is a member of the Alberta Diabetes Institute and the Women and Children's Health Research Institute.

Haqq's laboratory is collaborating with that of Timo Müller, director of the Institute for Diabetes and Obesity at the Helmholtz Diabetes Center and a researcher with the German Center for Diabetes Research in Munich, Germany.

As part of the collaboration with the Müller team, first author Qiming Tan, a Ph.D. candidate in the U of A Faculty of Medicine & Dentistry, will study for a term in Germany and a German student will join Haqq's

lab here.

Haqq and Tan recommend further research to identify why some individuals respond differently to the drugs. Some racial and [ethnic groups](#) bear a disproportionate burden of obesity and type 2 diabetes, they said, so more participants from these groups are needed in trials. Further studies should also focus on how differences in biological sex affect drug efficacy and safety.

In addition to drug combinations, the researchers are looking for non-pharmacological solutions, such as how adding fiber to a person's diet can slow [weight gain](#) and improve the effectiveness of existing [diabetes](#) medications.

The research was published in *Frontiers in Endocrinology*.

**More information:** Qiming Tan et al, Recent Advances in Incretin-Based Pharmacotherapies for the Treatment of Obesity and Diabetes, *Frontiers in Endocrinology* (2022). [DOI: 10.3389/fendo.2022.838410](https://doi.org/10.3389/fendo.2022.838410)

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