

# New approach to reduce risk of developing type 2 diabetes trialled in Liverpool

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An international clinical trial conducted by the University of Liverpool has shown that the drug liraglutide 3.0 mg may reduce diabetes risk by 80% in individuals with obesity and prediabetes according to a study published today in *The Lancet*.

This three-year SCALE [obesity](#) and prediabetes trial followed 2254 adults with prediabetes at 191 research sites in 27 countries worldwide. The aim was to evaluate whether liraglutide 3.0 mg can safely delay the onset of type 2 diabetes in participants with prediabetes.

Prediabetes, also commonly referred to as borderline diabetes, is a metabolic condition and growing global problem that is closely tied to obesity. If undiagnosed or untreated, prediabetes can develop into type 2 diabetes; which whilst treatable is currently not fully reversible.

## Significant health cost

In the UK 1 in 10 of the population have prediabetes. The associated health care cost to the economy is significant. These individuals are at risk of a range of conditions that can affect their overall health including type 2 diabetes and its complications as well as cardiovascular disease and cancer.

Liraglutide promotes weight loss by interacting with the areas of the brain that control appetite and energy intake.

The participants in the study, which was conducted at University Hospital Aintree, were randomly allocated to either liraglutide 3.0 mg or a placebo delivered by injection under the skin once daily for 160 weeks. They were also placed on a reduced calorie diet and advised to increase their physical activity.

The study showed that three years of continuous treatment with once-daily liraglutide 3.0 mg, in combination with diet and increased [physical activity](#), reduces the risk of developing type 2 diabetes by 80% and results in greater sustained [weight loss](#) compared to the placebo.

## **New therapeutic approach**

Professor John Wilding, Professor of Medicine at the University of Liverpool and Honorary Consultant Physician is an obesity specialist was an investigator in the trial and an author of this study.

Professor Wilding, said: "In this study, we wanted to see if this drug in combination with a reduced-calorie diet and lifestyle intervention could delay the onset of type 2 diabetes in a high-risk population with obesity and prediabetes.

"On the basis of our findings, liraglutide 3.0 mg can provide us with a new therapeutic approach for patients with obesity and prediabetes to substantially reduce their risk of developing type 2 diabetes and its related complications.

"As healthcare professionals, it is important that we can offer a treatment to our type 2 [diabetes](#) patients that we are confident will achieve results in the real-world that are consistent with the results of the clinical trial programme."

The study is a continuation of work started by Professor Wilding in 1996

when he was working at the Hammersmith Hospital in London, and was part of the team that first showed that the hormone GLP-1, on which liraglutide is based, was involved in the control of food intake. Professor Wilding adds "It is very exciting to see a laboratory observation translated into a medicine that has the potential to help so many people, even though it has taken over 20 years."

**More information:** '3 years' of liraglutide versus placebo for type 2 diabetes risk reduction and weight management in individuals with prediabetes: a randomised, double-blind trial', [dx.doi.org/10.1016/S0140-6736\(17\)30069-7](https://doi.org/10.1016/S0140-6736(17)30069-7)

Provided by University of Liverpool

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