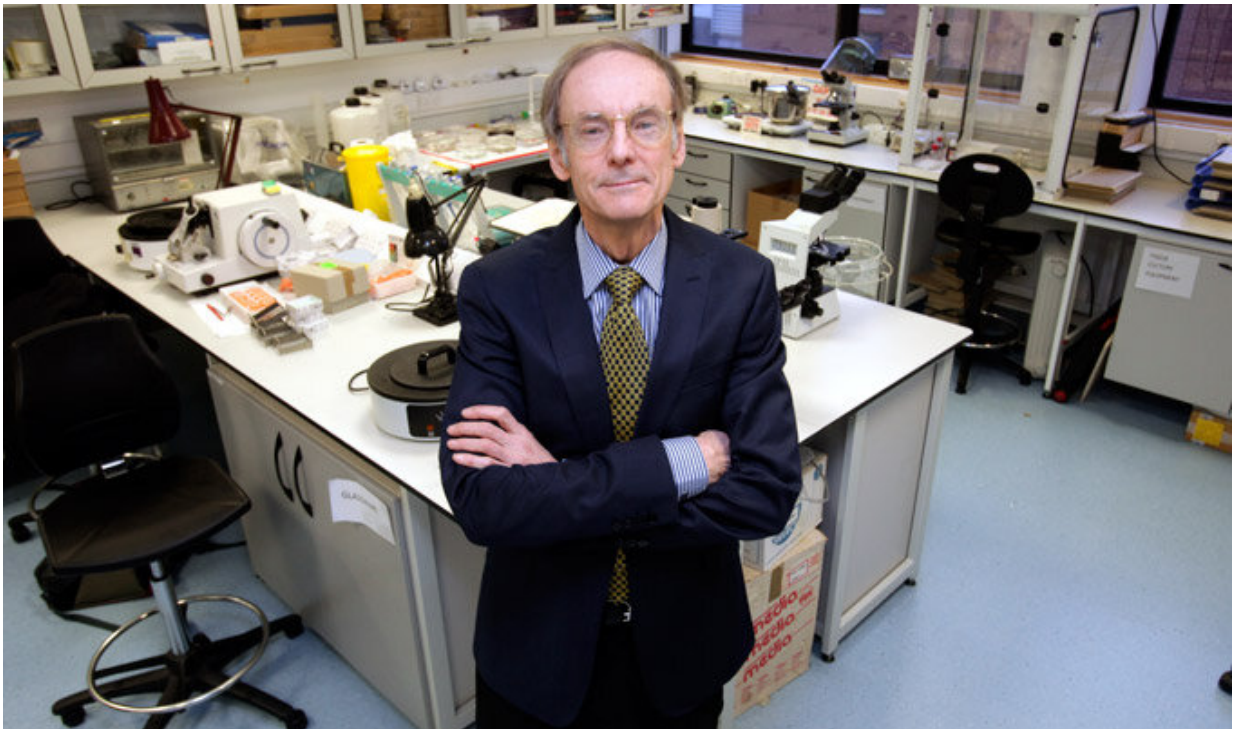


Weight loss puts type 2 diabetes into remission for five years, finds research

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Professor Roy Taylor, Newcastle University. Credit: Newcastle University

New findings have revealed that nearly a quarter (23%) of participants who were in remission from type 2 diabetes at two years in a clinical trial remained in remission at five years.

The participants no longer needed to use [diabetes medications](#) to manage

their [blood sugar levels](#). Those who were still in remission had an average weight loss of 8.9kg at five years.

The research revealed that the proportion of participants in the extension of the landmark Diabetes Remission Clinical Trial (DiRECT) remission after five years was more than three times that of the DiRECT control group, who did not take part in the original low-calorie diet program or receive continued low-intensity weight management support in the extension trial.

The research, led by Professor Roy Taylor, at Newcastle University and Professor Mike Lean, at the University of Glasgow, and will be presented at the [Diabetes UK Professional Conference 2023 in Liverpool](#) on April 26.

Professor Roy Taylor at Newcastle University said, "The DiRECT five-year follow up shows that the rapid weight loss program brings about considerable weight loss at five years with low-intensity support. The most important question now is how the follow-up program can be even more successful at an affordable cost.

"We have found major overall benefits to people who were originally assigned to the weight loss group. They had around half the number of serious health issues causing admission to hospital. They also reported feeling much better as a result of the weight loss. For those who remain free of [diabetes](#), the study has been life-changing. It is difficult for people who do not have type 2 diabetes to appreciate what it means to have escaped from the shadow of this serious condition."

The original DiRECT trial of a weight management program for people with a diagnosis of type 2 diabetes within the last six years, involved a 12-week low-calorie formula diet, followed by support to gradually reintroduce healthy food and maintain weight loss. The landmark trial

carried out at Newcastle University was the first to show that remission from type 2 diabetes is possible through a [dietary intervention](#) in [primary care](#), with almost half (46%) of people in remission at one year, and 36% at two years.

In the extension study, to understand the longer-term benefits of the program, 95 intervention group participants of the original two-year DiRECT study (48 of whom were in remission at the start of the extension) continued to receive support to help maintain weight loss over the next three years. They received nurse or dietitian appointments at their GP surgery every three months to review their weight, blood sugar levels and blood pressure, and were offered advice and support to maintain their weight loss.

Participants who regained over 2kg during years 3–5 were offered an additional package of support, available once each year, consisting of the low-calorie 'soups and shakes' diet for four weeks, followed by support while reintroducing normal meals.

During the three-year extension, 82 participants from the original DiRECT control group—who originally received best type 2 diabetes care according to guidelines—were advised to lose weight. Control participants did not receive the three-monthly appointments, or additional "soups and shakes" packages during the extension period.

- Data from 85 participants of the original DiRECT intervention group revealed an average five-year weight loss of 6.1kg.
- Of the 48/85 participants who were in remission at the start of the extension period, 11 (23%) were still in remission at five years, with an average five-year weight loss of 8.9kg.
- Data, available from 82 participants of the original DiRECT control group, showed an average five-year weight loss of 4.6kg, with 3.4% in remission.

- Overall, the intervention group saw greater improvements in [blood pressure](#) and blood sugar levels, and fewer needed medication, compared to the control group.
- The number of "serious adverse events" (events resulting in hospital admission) in the intervention group was less than half that in the control group. The findings also support growing evidence that weight loss, and remission from type 2 diabetes, can prevent or delay the complications of diabetes.

Dr. Elizabeth Robertson, Director of Research at Diabetes UK, said, "Diabetes UK is proud to be at the forefront of over a decade of pioneering research into type 2 diabetes remission. Our DiRECT study has been pivotal in transforming the lives of people with type 2 diabetes by showing that the condition can be put into remission through weight loss. The new findings from DiRECT confirm that for some people, it is possible to stay in remission for at least five years.

"For those who put type 2 diabetes into remission, it can be life-changing, offering a better chance of a healthier future. For those that aren't able to go into remission, losing weight can still lead to major health benefits, including improved blood sugar levels, and reduced risk of serious diabetes complications such as heart attack and stroke.

"DiRECT inspired the NHS low-calorie diet program, granting many more people with type 2 diabetes the opportunity to put the condition into remission. We now need to understand how best to support more people to maintain [weight loss](#) and stay in [remission](#) in the long term."

Provided by Newcastle University

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