

He Kupu mō ngā Kitenga Rangahau Research Findings Brief

HEALTHIER
LIVES

He Oranga Hauora

National
SCIENCE
Challenges



Te Kaika DiRECT for remission of Type 2 Diabetes

Key points

- The UK Diabetes Remission Clinical Trial (DiRECT) demonstrated that substantial weight loss and remission from type 2 diabetes can be achieved with low-energy total diet replacement followed by ongoing behavioural support.
- We conducted a pilot randomised controlled trial of DiRECT in a Māori primary care provider in Aotearoa New Zealand, working with participants living with diabetes, obesity, and a desire to lose weight.
- The Te Kaika DiRECT clinical trial resulted in sustained weight loss for participants following the DiRECT intervention.
- Participants considered the DiRECT intervention an acceptable and effective approach to weight loss.
- Our findings highlight the importance of structured and culturally relevant behavioural support for effective weight loss and weight loss maintenance.

LEAD RESEARCHERS

Dr Andrew Reynolds
University of Otago

**Associate Professor
Justine Camp**
University of Otago

Dr Kim Ma'ia'i
Te Kāika Health

PARTNER

Te Kāika Health
Dunedin

PROJECT TIMELINE

September 2022 – February 2024



We tested a weight loss programme that has been shown overseas to achieve remission of type 2 diabetes.



Māori and Pacific participants lost weight with this approach and found it culturally acceptable.



This programme matters because excess weight predisposes people to diabetes, heart disease and some cancers.

What did we do?

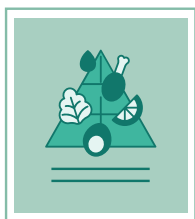
- Participants with prediabetes or type 2 diabetes, obesity, and a desire to lose weight were randomised to either individualised dietitian-supported usual care or the dietitian-supported DiRECT intervention for twelve months.
- DiRECT included three months of total diet replacement followed by food reintroduction and dietitian-supported weight loss maintenance.
- Participants met with a dietitian regularly throughout the 12 months for health measurements. Interviews were conducted at three months and twelve months to explore participants' experiences and acceptability of the intervention.

What did we find?

- For DiRECT participants, total diet replacement was challenging but rapid weight-loss and improvements in health resulted in the intervention being favourably received.
- DiRECT participants lost weight quickly, and kept it off for the 12 month duration. Control group participants experienced a smaller and slower weight loss over the 12 months.
- Food reintroduction presented unique challenges, requiring effective strategies and participant adaptability.
- Participants considered individualised and empathetic dietetic support crucial to success.
- Social and cultural factors influencing success were experienced: family and social networks provided support and motivation, however eating-related norms were identified as challenges.

What did we produce?

This pilot clinical trial demonstrated the efficacy and cultural acceptability of a revolutionary nutritional therapy that can result in remission of type 2 diabetes. This non-surgical approach could benefit thousands of people affected by type 2 diabetes and other diet-related diseases in Aotearoa New Zealand, preventing the on-going healthcare costs associated with diabetes complications.



Why does it matter?

- The only proven treatment for remission of type 2 diabetes publicly available in Aotearoa New Zealand is bariatric surgery, which is costly and relatively inaccessible.
- Globally, the DiRECT approach has demonstrated that substantial weight loss and remission from type 2 diabetes can be achieved via this lifestyle intervention.
- In the United Kingdom, evidence from the original trial prompted the public funding of DiRECT as a national "diabetes remission service".



Participant perspectives

“You’ve gotta make those changes in life, otherwise you’re not gonna be here that long.”

“If I do it I can help my family, and my family’s my first priority.”

“She helped refocus me on what I was really aiming for. Not just weight loss, it was really health.”

Next steps

A large nationwide trial of the DiRECT approach is planned, in conjunction with testing new anti-obesity drugs. Once completed, the DiRECT approach could be rolled out to all interested people in Aotearoa New Zealand, as a funded treatment for the remission of type 2 diabetes.

Support from a registered dietitian was crucial to the success of this study. More investment in training and recruiting dietitians in the public health system is an important next step to enable successful rollout of this programme nationwide.



About Healthier Lives

National
SCIENCE
Challenges

HEALTHIER
LIVES

He Oranga
Hauora

Our vision is of Aotearoa New Zealand with equitable health outcomes and a substantially reduced burden of non-communicable diseases.

Tō mātou kitenga kia noho a Aotearoa New Zealand hei whenua he ōrite ngā putanga hua hauora mō te tangata, kia iti iho hoki ngā pūkauranga o ngā māuiui kāore e taea te tuku ki te tangata kē.

The **Healthier Lives – He Oranga Hauora National Science Challenge** is a national collaborative research programme, investigating innovative approaches to the prevention and treatment of four major non-communicable diseases (NCDs) – cancer, cardiovascular disease, diabetes and obesity.

FUNDING

This study was co-funded by Healthier Lives – He Oranga Hauora National Science Challenge, Pūtahi Manawa | Healthy Hearts for Aotearoa New Zealand Centre of Research Excellence and the New Zealand Ministry of Social Development.

Healthier Lives is hosted by the University of Otago, funded by the Ministry of Business, Innovation and Employment and supported by ten Challenge partners.

website healthierlives.co.nz



ACKNOWLEDGEMENTS

The researchers would like to thank the participants of this study and the fantastic and supportive staff at Te Kāika Health, Dunedin.

PUBLICATION

Experiences and Acceptability of a Weight Loss Intervention for Diabetes (Diabetes Remission Clinical Trial – DiRECT) in Aotearoa New Zealand: A Qualitative Study within a Pilot Randomised Controlled Trial. *Nutrients* 2024;16(12):1853, doi: 10.3390/nu16121853

RESEARCH TEAM

Dr Andrew Reynolds
Associate Professor
Justine Camp
Dr Kim Ma'ia'i
Natalie Ashton
Kate Campbell
Fiona Hood
Takiwai Russell-Camp

Please use the following citation:

Research Findings Brief He Kupu mō ngā Kitenga Rangahau: Te Kaika DiRECT for remission of Type 2 Diabetes, Healthier Lives He Oranga Hauora National Science Challenge 2024.

This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.