ISRCTN11365927 https://doi.org/10.1186/ISRCTN11365927

Towards a more green and healthy food culture - Organic food, sustainability and health on one plate

Submission date	Recruitment status	[ ] Prospectively registered
10/11/2025	No longer recruiting	[ ] Protocol
Registration date	**Overall study status**	[ ] Statistical analysis plan
03/12/2025	Ongoing	[ ] Results
Last Edited	**Condition category**	[ ] Individual participant data
17/11/2025	Nutritional, Metabolic, Endocrine	[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Our food choices affect both our health and the planet. The OnePlate study is looking at whether eating more organic and plant-based foods, following Danish dietary guidelines, can help families eat in a way that's better for their health and the environment.

Who can participate?
Families with children aged 3 to 17 years old can take part.

What does the study involve?
Families who join the study will be randomly placed into one of two groups. One group will continue eating as usual. The other group will follow the OnePlate diet for six weeks. This group will receive:
-Weekly meal planner posters
-A recipe book with tips and meal ideas
-A children's activity booklet to make learning about food fun
-A selection of basic ingredients used in the recipes
-Weekly email updates with helpful information
-All families will also be able to buy food online at a discount.

What are the possible benefits and risks of participating?
The study aims to help families make healthier and more sustainable food choices. The only known risk is a small chance of bruising or infection from blood samples taken during the study.

Where is the study run from?
The study is based in Copenhagen, Denmark.

When is the study starting and how long is it expected to run for?
It starts in October 2025 and will run until July 2026.

Who is funding the study?
The study is funded by the Green Growth and Development programme (GUDP).

Who is the main contact?
Dr Anne Dahl Lassen, adla@food.dtu.dk

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Dr Anne Dahl Lassen

ORCID ID
https://orcid.org/0000-0002-3262-3611

Contact details
Kemitorvet, Building 201
Kgs. Lyngby
Denmark
2800
+45 31425789
adla@food.dtu.dk

Additional identifiers

Protocol serial number
34009-22-2036

Study information

Scientific Title
Organic food, Sustainability and Health on one plate — a randomized controlled trial among Danish families

Acronym
OnePlate

Study objectives
The objective of the OnePlate study is to evaluate the effectiveness and feasibility a dietary approach that combines organic food with a healthy, plant-rich diet among Danish families with children.
More specifically the OnePlate project aims to:
1. Evaluate the effectiveness of the OnePlate diet on both human health (e.g. pesticide exposure and indicators of cardiometabolic disease) and planetary health (e.g. climate footprint, land use, and biodiversity).
2. Gain real-world insights into how families implement the OnePlate concept, as well as identifying barriers, opportunities, and motivational factors influencing their transition.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 23/05/2025, Danish National Ethics Committee (Borgervænget 3, st., Copenhagen, 2100, Denmark; +45 38 66 63 95; vek@regionh.dk), ref: H-24047427

Primary study design
Interventional

Study design
Randomized non-blinded controlled study among healthy Danish families

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Prevention of cardiometabolic diseases and reduction of environmental impact of food intake among healthy families

Interventions
The study is designed as a free-living, family-based, two-arm, parallel randomized controlled trial, comparing 1) a plant-rich and organic diet (intervention group) to 2) the habitual diet (control group) of individuals of the families, through a six-week intervention period.

Randomization of families was performed using a random number generator (through EasyTrial)

Families in the intervention group will receive a box including
1. Weekly Meal Planner Posters
2. a OnePlate Book with recipes, describing the OnePlate concept including guidelines and tips for each meal of the day and three weekly dinner plans to be repeated twice during the six-week intervention
3. a Children's activity booklet to engage young children with small tasks to promote knowledge and curiosity in a fun way and
4. a selection of basic ingredients used in the OnePlate recipes. Furthermore, intervention families will receive e-mail newsletters for regular information approximately one post per week throughout the intervention period. All families will have the opportunity to purchase foods online with discount.

Intervention Type
Behavioural

Primary outcome(s)
1. Plasma total cholesterol measured from fasting blood samples from all adults at baseline and follow-up
2. Pesticide metabolites excretion measured from first-morning urine samples on three days at baseline and follow-up

Key secondary outcome(s)
At baseline and follow-up:
1. Ratio of animal-sourced vs. plant-sourced proteins (AP) in the diet (adults and children using a

digital seven-day dietary record)
2. Other cardiometabolic disease-related risk factors (LDL cholesterol, HDL cholesterol, triglycerides, fasting glucose and insulin levels, blood pressure, anthropometric data and hsCRP)
3. Other dietary intake data: food groups (e.g. legumes, vegetables, fruits, meat, fish, dairy), macronutrients, micronutrients, and energy intake (using a digital seven-day dietary record)
4. Iron status (hemoglobin and ferritin) and vitamin B12 (cobalamin) (blood samples adults)
5. Sodium and potassium excretion (urine samples children and adults)
6. Parental attitudes, practices, self-efficacy and perceived social norms
7. Sustainability of the diet based on climate impact, land-use and biodiversity loss

At follow-up:
8. Use and acceptability of the intervention components measured by a questionnaire among intervention families
9. Interviews post-intervention among selected intervention families

Completion date
30/06/2027

Eligibility

Key inclusion criteria
1. Families and households with at least one participating parent and at least one participating child aged 3-17 years.
2. Families are eligible if they have a regular consumption of meat (meat or fish normally more than 4 times a week) and a majority of their fruits, vegetables, cereals, and bread purchases originates from conventional farming, i.e. at least half of the plant-based foods and products purchased in the household should be non-organic (self-reported)

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
3 Years

Upper age limit
70 Years

Sex
All

Total final enrolment
0

Key exclusion criteria

1. Pregnancy
2. Diabetes type I and type II if medicated
3. Cancer treatment or recently had a major surgery
4. Users of weight loss medication (e.g. Wegovy)
5. Severe anaemia

Date of first enrolment
18/09/2025

Date of final enrolment
31/07/2026

Locations

Countries of recruitment
Denmark

Study participating centre
DTU Food
Henrik Dams Allé
Kgs Lyngby
Denmark
DK-2800

Sponsor information

Organisation
Technical University of Denmark

ROR
https://ror.org/04qtj9h94

Funder(s)

Funder type
Government

Funder Name
Organic RDD 8 programme, coordinated by International Centre for Research in Organic Food Systems (ICROFS)

Funder Name
Danish Ministry of Food, Agriculture and Fisheries

Results and Publications

Individual participant data (IPD) sharing plan
Available on request from adla@food.dtu.dk

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes