

Can we reduce salt levels in bread without affecting taste?

Submission date 11/07/2012	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 04/09/2012	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 15/10/2018	Condition category Circulatory System	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims:

The aim of this study is to establish whether the amount in salt can be reduced in a common everyday food item such as bread without a discernible difference in taste. Bread has been chosen because of the fact that it is consumed in large quantities in the staple diet of many people in addition to the fact that it is also a large contributor to our daily salt intake.

Who can participate?

We have asked that only people over 18 participate and exclude anyone who is known to have Coeliac disease or is gluten intolerant. Both of the criteria have been passed by our local ethics committee.

What does the study involve?

The study involves members of the public tasting 5 different types of white bread. Each bread type will be made with varying levels of salt, a salt alternative such as Lo-Salt or no salt. All breads will be made by a professional local baker who adheres to local food standards for handling and preparation. The members of the public will then be asked to comment on the taste of the bread and record their views on a data sheet.

What are the possible benefits and risks of participating?

The benefits of reducing salt in bread are potentially huge. We generally consume far excess the amount of salt we actually need. High salt consumption has been linked to poor health outcomes such as stroke and cancer. By reducing salt in an everyday item such as bread, a significant knock on reduction on the overall amount of public salt consumption could be gained. There are very few risks.

Where is the study run from?

University of Oxford

When is study starting and how long is it expected to run for?

The study will run from August 2012 until December 2012. After this all the results collected will be subject to data analysis.

Who is funding the study?
National Institute of Health Research, National School of Primary Care Research.

Who is the main contact?
Dr Kamal R. Mahtani

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Protocol serial number
151

Study information

Scientific Title
Can we reduce salt levels in bread without a discernable difference in taste

Study objectives
Is there a difference in taste preference for bread made with half levels of salt or a salt alternative compared to standard levels of salt?

Ethics approval required
Old ethics approval format

Ethics approval(s)
Medical Sciences Interdisciplinary Research Ethics Committee, University of Oxford, 17/06/2012

Study design
Randomised controlled crossover trial

Primary study design
Interventional

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Cardiovascular disease

Interventions

This is a double blinded randomised control cross over trial. Participants will be asked if they would like to taste some white bread then comment on it.

Participants will be recruited from the Oxfordshire general public.

Participants will be informed that this is a bread tasting experiment. Informed consent will be taken as the patient wishing to become enrolled and signing their participation sheet. They will be asked to taste 5 different types of white bread will be blinded to the salt content of the bread they will be tasting.

Their taste preference will be recorded on a Visual Analogue Scale which will be used for the analysis.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Overall taste score

Key secondary outcome(s)

Correlation between taste preference and:

1. Gender
2. Age
3. Smoking status

Completion date

01/03/2013

Eligibility**Key inclusion criteria**

Adults (over 18 years of age) who regularly eat white bread

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

Anyone under the age of 18 years old or has a gluten intolerance or Coeliac disease

Date of first enrolment

01/05/2012

Date of final enrolment

01/03/2013

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

University of Oxford

Oxford

United Kingdom

OX2 6NW

Sponsor information

Organisation

University of Birmingham

ROR

<https://ror.org/03angcq70>

Funder(s)

Funder type

Government

Funder Name

National Institute for Health Research - School for Primary Care Research (NSPCR) (UK)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

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