

Investigation of food Taste on Satiety and food preference

Submission date 11/05/2011	Recruitment status No longer recruiting	☐ Prospectively registered
		☐ Protocol
Registration date 26/05/2011	Overall study status Completed	☐ Statistical analysis plan
		☒ Results
Last Edited 27/11/2015	Condition category Mental and Behavioural Disorders	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Taste plays an important role in what we decide to eat or drink. It is also thought that different types of taste, such as sweet or savoury, can influence our appetite and the amount we actually eat. Studies have shown that sweet-tasting foods can increase the appetite, and so we are likely to eat more. There have been very few studies testing the effects of savoury-tasting foods on appetite however. The aim of this study is to compare the effects of sweet and savoury pre-loads (flavoured drinks before meals) on feelings of hunger and food intake.

Who can participate?

Health women between the ages of 18 and 30.

What does the study involve?

Participants are randomly allocated to one of three groups. Those in the first group are given a sweet-tasting milk-based drink, flavoured with chocolate and sweetened with sucrose (sugar). Those in the second group are given a savoury-tasting milk-based drink flavoured with mushroom and monosodium glutamate (MSG). Those in the third group are given a bland-tasting milk-based drink containing powdered skimmed milk and corn flour. Participants in all three groups are then given a very large portion of food (including both sweet and savoury tastes) and told to eat as much as they like. The amount of food the participants in each group eat is then recorded. This exercise is repeated every day for four days. Throughout the 4 days, participants are interviewed to find out how full they are feeling before and after the meals.

What are the possible benefits and risks of participating?

Not provided at time of registration.

Where is the study run from?

Institute of Psychological Sciences, Leeds (UK)

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

March 2008 to August 2008

Who is funding the study?

1. Ajinomoto Inc. (Japan)
2. Biotechnology and Biological Sciences Research Council (UK)
3. European Union (Belgium)

Who is the main contact?

Dr Graham Finayson

Contact information

Type(s)

Scientific

Contact name

Dr Graham Finlayson

Contact details

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Additional identifiers

Protocol serial number

08073-01

Study information

Scientific Title

Influence of savoury or sweet food on sensory regulation of appetite and liking and wanting for foods: a single centre cross-sectional randomised cross-over study

Acronym

TasteSat

Study objectives

1. Savoury taste will have a stronger modulating effect on food preference than sweet or bland taste
2. Individual differences in psychological eating behaviour traits will moderate the effect of taste on satiety and food preference

Ethics approval required

Old ethics approval format

Ethics approval(s)

Institution of Psychological Sciences Ethics Committee, University of Leeds, 11th March 2008, Ref: 08073-01

Primary study design

Interventional

Study design

Single centre cross-sectional randomised crossover study

Study type(s)

Screening

Health condition(s) or problem(s) studied

Eating attitudes and behaviours

Interventions

In the randomised cross-over study participants will be given iso-energetic, equi-palatable, liquid preloads made from commercially available foods and manipulated according to taste (flavour).

30 participants randomised to

1. Savoury taste
2. Sweet taste
3. Bland taste (control) in counterbalanced order

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Food intake at one's pleasure (ad libitum): multi item test meal (buffet)
2. Foods of known macronutrient and energy composition, each item weighed before and after consumption to the nearest 0.1g

Key secondary outcome(s)

1. Food selection according to taste (savoury or sweet) and fat content (>50% or <25% energy) of items consumed in test meal
2. Subjective appetite (hunger, fullness, prospective consumption) using visual analogue scales (VAS) score (0 = not at all, 100 = extremely) at 0, +10, +20, +30 minutes following preload consumption
3. Food preferences using computerised task to assess images of foods varying according to taste (savoury or sweet) and fat content (>50% or <25% energy)
4. Liking measured by (VAS) score (0 = not at all, 100 = extremely) at +10 minutes following preload consumption
5. Wanting measured by paired choice reaction time task

Completion date

04/08/2008

Eligibility

Key inclusion criteria

1. Female, in good general health, aged 18-30 years
2. Non-obese (< 30kg/m²)
3. Acceptance of the study foods

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 Years

Upper age limit

30 Years

Sex

Female

Key exclusion criteria

1. Currently following a weight loss/maintenance routine
2. History of eating or psychological disorders in previous 3 years

Date of first enrolment

17/03/2008

Date of final enrolment

04/08/2008

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

Institute of Psychological Sciences

Leeds

United Kingdom

LS2 9JT

Sponsor information

Organisation

Ajinomoto Co., Inc. (Japan)

ROR

<https://ror.org/044mkdq33>

Funder(s)**Funder type**

Research council

Funder Name

Ajinomoto Inc. (Japan)

Funder Name

Biotechnology and Biological Sciences Research Council (BBSRC) (UK) (BB/G005524/1)

Alternative Name(s)

UKRI - Biotechnology And Biological Sciences Research Council, Agricultural and Food Research Council, Biotechnology & Biological Sciences Research Council, BBSRC, BBSRC UK, AFRC

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

Funder Name

European Union (EU) (Belgium) - Seventh Framework Programme (FP7/2007-2013, grant:266408)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/01/2012		Yes	No