

# Effect of breakfast cereals compared with corn flakes on blood glucose, gastric emptying and satiety in healthy subjects

**Submission date**  
27/06/2007

**Recruitment status**  
No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**  
27/06/2007

**Overall study status**  
Completed

☐ Statistical analysis plan

☐ Results

**Last Edited**  
13/11/2008

**Condition category**  
Nutritional, Metabolic, Endocrine

☐ Individual participant data

☐ Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

## Study information

### Scientific Title

Effect of beta-glucan breakfast cereals compared with corn flakes on post-prandial blood glucose, gastric emptying and satiety in healthy subjects: a randomised crossover blinded trial

### Study objectives

The aim of this study was to evaluate the effect of beta-glucan on the rate of gastric emptying, post-prandial glucose response and satiety in healthy subjects.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Not provided at time of registration

### Study design

Randomised, double-blind, crossover trial

### Primary study design

Interventional

### Secondary study design

Randomised controlled trial

### Study setting(s)

Other

### Study type(s)

Quality of life

### Participant information sheet

### Health condition(s) or problem(s) studied

Gastric emptying, post-prandial blood glucose

### Interventions

Twelve healthy subjects were assessed using a randomised crossover blinded trial. The subjects were examined after an eight-hour fast and assessment of normal fasting blood glucose level. Gastric emptying rate was calculated as the percentage change in the antral cross-sectional area 15 and 90 minutes after ingestion of vanilla yoghurt with flakes containing 4 g beta-glucan (GER1) or vanilla yoghurt with Kellogg's cornflakes (GER2). Significant differences were evaluated with Wilcoxon t-test.

### Intervention Type

Drug

### Phase

Not Specified

**Drug/device/biological/vaccine name(s)**

Beta-glucan

**Primary outcome measure**

The beta-glucan effect on the rate of gastric emptying was statistically not significant compared with cornflakes. Consumption of beta-glucan lowered the post-prandial glucose response significant ( $p < 0.05$ ).

**Secondary outcome measures**

The effect of beta-glucan on satiety was not statistically significant.

**Overall study start date**

01/04/2003

**Completion date**

01/01/2004

## Eligibility

**Key inclusion criteria**

Healthy subjects without symptoms or a prior history of gastrointestinal disease, abdominal surgery or diabetes mellitus were included in the study.

**Participant type(s)**

Patient

**Age group**

Adult

**Sex**

Both

**Target number of participants**

12

**Key exclusion criteria**

1. Diabetes mellitus
2. Prior abdominal surgery
3. Symptoms of gastrointestinal disease
4. Obesity

**Date of first enrolment**

01/04/2003

**Date of final enrolment**

01/01/2004

## Locations

**Countries of recruitment**

Netherlands

Sweden

**Study participating centre**

**Malmo University Hospital**

Malmo

Sweden

205 02

**Sponsor information****Organisation**

Malmö University Hospital (Sweden)

**Sponsor details**

Department of Medicine

Ingang 35

Malmö

Sweden

205 02

**Sponsor type**

Hospital/treatment centre

**Website**

[http://www.hand.mas.lu.se/malmo\\_unv\\_hosp.htm](http://www.hand.mas.lu.se/malmo_unv_hosp.htm)

**ROR**

<https://ror.org/05wp7an13>

**Funder(s)****Funder type**

Industry

**Funder Name**

Skånemejerier (Sweden)

# Results and Publications

## Publication and dissemination plan

Not provided at time of registration

## Intention to publish date

## Individual participant data (IPD) sharing plan

## IPD sharing plan summary

Not provided at time of registration