# Amino acids, the catch-22 of obesity and weight loss?
# - a pilot study among obese subjects who underwent gastric bypass surgery -

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| **Ethical review** | Approved WMO |
| **Status** | Recruiting |
| **Health condition type** | Malabsorption conditions |
| **Study type** | Observational non invasive |

## Summary

### ID

NL-OMON37513

**Source**
ToetsingOnline

**Brief title**
Amino acids, obesity and weight loss

### Condition

- Malabsorption conditions
- Appetite and general nutritional disorders
- Gastrointestinal therapeutic procedures

**Synonym**
morbid obesity

**Research involving**
Human

## Sponsors and support

**Primary sponsor:** Slotervaartziekenhuis
**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** Amino Acids, Depression, Gastric Bypass, Weight Loss

## Outcome measures

### Primary outcome

Dietary intake will be assessed by a trained research dietician by three 24h recalls (one in-person and two by telephone) using the multiple pass technique. Mean daily energy intake, protein intake and carbohydrate intake will be calculated using the Dutch Food Composition Database 2011. Depression/anxiety will be assessed using the Hospital anxiety and depression scale (HADS). Amino acid profiling will be done in blood plasma by high performance liquid chromatography (HPLC)/fluorescence. Characteristics of patients, including weight loss, will be obtained from medical records.

### Secondary outcome

not applicable

# Study description

### Background summary

The mechanisms that make losing weight and maintaining weight loss difficult are largely unknown. Bariatric surgery is an effective treatment option for morbid or complicated obesity. However, the response to treatment varies and a rebound phenomenon after initial weight loss is common. Amino acids are precursors of a number of neurotransmitters involved in the pathogenesis of psychiatric illness and likely influence appetite. We hypothesize that by influencing neurotransmitter metabolism a relative deficiency of specific amino

acids after bariatric surgery influences appetite and/or results in a poorer psychological status that hampers weight loss or results in a rebound phenomenon.

### Study objective

We propose to perform a pilot study to examine the feasibility of studying the triangular association between: 1) amino acid metabolism (influenced by, amongst other factors, diet composition [e.g. energy intake, macronutrient intake, individual amino acid intake], insulin and systemic inflammation); 2) mood disorders (depression/anxiety); and 3) weight loss in subjects undergoing gastric bypass surgery.

### Study design

Cross-sectional, observational study

### Study burden and risks

The burden on patients because of participation in this study are minimal and risks are absent. Usual care for subjects will be maintained. Patients will be approached to participate in the study during routine visits. Assessment of dietary intake will be obtained by means of a 24 hour recall. During this recall - which usually takes about 30-45 minutes the first time - information is obtained about a patients* food intake during the preceding 24 hours. In addition, a short depression questionnaire (the HADS, consisting of 14 closed questions, will take 10 minutes) will be obtained. An extra blood sample (4 ml) will be obtained during regular blood withdrawal which is part of usual care. In the week following the hospital visit, patients will be approached for two additional 24 hour recalls by telephone (20-30 minutes).

## Contacts

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# Trial sites

## Listed location countries

Netherlands

# Eligibility criteria

**Age**
Adults (18-64 years)
Elderly (65 years and older)

## Inclusion criteria

Patients who underwent Roux-en-Y gastric bypass surgery at Slotervaart Hospital, Amsterdam

## Exclusion criteria

Patients who receive parenteral feeding or use protein/energy supplements

# Study design

## Design

**Study type:** Observational non invasive

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|---|---|
| Masking: | Open (masking not used) |
| Control: | Uncontrolled |
| Primary purpose: | Basic science |

## Recruitment

NL

| | |
|---|---|
| Recruitment status: | Recruiting |

| | |
|---|---|
| Start date (anticipated): | 06-03-2012 |
| Enrollment: | 100 |
| Type: | Actual |

## Ethics review

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| Approved WMO Date: | 14-02-2012 |
| Application type: | First submission |
| Review commission: | METC Slotervaartziekenhuis en Reade (Amsterdam) |

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

| Register | ID |
|---|---|
| CCMO | NL39396.048.12 |