# RBP4 and glucose metabolism.

No registrations found.

| | |
|---|---|
| **Ethical review** | Positive opinion |
| **Status** | Recruiting |
| **Health condition type** | - |
| **Study type** | Observational non invasive |

## Summary

### ID

NL-OMON27408

**Source**
NTR

**Brief title**
RBP

**Health condition**

Obesity
Insulin resistance
Type 2 diabetes mellitus

### Sponsors and support

**Primary sponsor:** Academic Medical Center
**Source(s) of monetary or material Support:** Academic Medical Center

### Intervention

### Outcome measures

**Primary outcome**

Circulating and tissue levels of RBP4, in relation to:

1. Endogenous glucose production;

2. Hepatic, peripheral and adipose tissue insulin sensitivity;

3. Hepatic triglyceride content.

### Secondary outcome

Correlation levels of RBP4 with hepatic enzymes involved in gluconeogenesis.

## Study description

### Background summary

Retinol binding protein (RBP4) is a small 21 kDa protein that belongs to the family of lipocalins. RBP4 is primarily synthesized in hepatocytes, but other sites of synthesis are known including adipocytes. Recently RBP4 has been proposed as an adipokine that is involved in obesity-induced insulin resistance. We aim to assess whether serum and tissue RBP4 levels are elevated in these metabolically altered states and whether these levels are correlated with glucose fluxes. This gives more insight in the pathophysiological role of RBP4 in glucose intolerance and diabetes in obesity and will shed light on whether it would be useful to develop agents that decrease RBP4 expression.

### Study objective

Liver and adipose tissue levels as well as serum levels of RBP4 are higher in obese subjects compared to lean subjects. In obese subjects tissue and serum levels of RPB4 are correlated with insulin sensitivity and hepatic triglyceride content.

### Study design

1. Screening;

2. Two weeks presurgery;

3. Surgery.

### Intervention

N/A

## Contacts

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# Eligibility criteria

## Inclusion criteria

1. Female;

2. BMI > 35 kg/m2;

3. Age between 26 and 50 years;

4. Established T2DM.

## Exclusion criteria

1. Primary lipid disorder or secondary lipid disorder treated with fibrates;

2. T2DM treated with thiazolidinediones, DPP4-inhibitors or GLP1-analogues;

3. Any medical condition except for glucose intolerance, hypertension and secondary dyslipidemia;

4. Bleeding disorder;

5. Untreated primary hypothyroidism;

6. Contra-indications for MR scanning.

# Study design

### Design

| | |
|---|---|
| Study type: | Observational non invasive |
| Intervention model: | Factorial |
| Allocation: | Non controlled trial |

**Control:** N/A , unknown

### Recruitment

NL

| | |
|---|---|
| Recruitment status: | Recruiting |
| Start date (anticipated): | 04-02-2013 |
| Enrollment: | 10 |
| Type: | Anticipated |

## Ethics review

Positive opinion

| | |
|---|---|
| Date: | 03-02-2013 |
| Application type: | First submission |

## 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 |
|---|---|
| NTR-new | NL3651 |
| NTR-old | NTR3835 |

| Register | ID |
| --- | --- |
| Other | METC AMC : 12/314 |
| ISRCTN | ISRCTN wordt niet meer aangevraagd. |

# Study results

**Summary results**
N/A