# Markers of airway inflammation in autoimmune hyperthyroidism; the interaction between thyroid and airways

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Hypothesis: In auto-immune hyperthyroidism there is an increase of (eosinophil)airwayinflammation compared to healthy test subjects. Objective: testing our hypothesis by answering the following questions: 1. What is the difference in NO in exhaled air...

Ethical reviewApproved WMOStatusRecruitment stoppedHealth condition typeThyroid gland disordersStudy typeObservational non invasive

# Summary

### ID

NL-OMON29897

**Source** ToetsingOnline

**Brief title** Airway-inflammation in auto-immune hyperthyroidism

# Condition

- Thyroid gland disorders
- Bronchial disorders (excl neoplasms)

**Synonym** asthma, hyperthyroidism, thyroid dysfunction

**Research involving** 

Human

### **Sponsors and support**

#### Primary sponsor: Medisch Centrum Leeuwarden

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Source(s) of monetary or material Support: wetenschapsfonds MCL wordt benaderd

### Intervention

Keyword: airway inflammation, Hyperthyroidism, NO

### **Outcome measures**

#### **Primary outcome**

NO in exhaled air

#### Secondary outcome

Score of respiratory questionnaire

Spirometry: FEV1, FVC

# **Study description**

#### **Background summary**

Respiratory symptoms are more common in patients with thyroid disease. Other conditions, like allergy's, are also known to be ralated to thyroid dysfunction. In auto-immune hyperthyroidism there might be more activated inflammatory cells, what leads to airwayinflammation. NO is a known and sensitive marker of airwayinflammation.

#### **Study objective**

Hypothesis: In auto-immune hyperthyroidism there is an increase of (eosinophil)airwayinflammation compared to healthy test subjects.

Objective: testing our hypothesis by answering the following questions:

1. What is the difference in NO in exhaled air between patients with hyperthyroidism and healthy subjects?

2. What are the differences in respiratory symptoms and lungfunction between patients with hyperthyroidism and healthy subjects?

3. Are respiratory symptoms en lungfunction abnormalities in patients with auto-immune hyperthyroidism related to the ammount of NO in exhaled air?

### Study design

In this prospective study 6 patients with hyperthyroidism (M Graves) and 6 healthy test subjects will be included. After recieving informed consent, a number of extra tests will be performed after the usual analysis in hyperthyroidism.

A respiratory questionnaire will be taken. A spirometry will be performed and NO in exhaled air will be measured. The patients with hyperthyroidism will be compared to the healthy subjects.

#### Study burden and risks

Subjects fill out a respiratory questionnaire, spirometry will be performed and NO in exhaled air will be measured. This will take about 1 hour. There are no risks for the subjects involved.

# Contacts

#### Public

Medisch Centrum Leeuwarden

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# **Trial sites**

### **Listed location countries**

Netherlands

# **Eligibility criteria**

#### Age

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

### **Inclusion criteria**

age >18 jaar Patients with hyperthyroidism/M Graves matched healthy test subjects

### **Exclusion criteria**

known history of pulmonary disease known allergy use os bronchodilatating medication use of betablockers use of corticosteroids pregnancy Known other auto-immune disease

# Study design

### Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

### Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	01-09-2006
Enrollment:	12
Туре:	Actual

# **Ethics review**

Approved WMO Date: Application type: Review commission:

26-09-2006 First submission RTPO, Regionale Toetsingscie Patientgebonden Onderzoek (Leeuwarden)

# **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 CCMO **ID** NL13837.099.06