# Light on glaucoma: study to measure contrast sensitivity, visual field, and adaptation time at high light conditions.

Published: 16-06-2016
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To determine the contrast sensitivity, visual field and adaptation time at high light conditions.

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|---|---|
| **Ethical review** | Approved WMO |
| **Status** | Recruitment stopped |
| **Health condition type** | Glaucoma and ocular hypertension |
| **Study type** | Observational non invasive |

## Summary

### ID

NL-OMON43212

**Source**
ToetsingOnline

**Brief title**
Light on glaucoma

### Condition

- Glaucoma and ocular hypertension

**Synonym**
glaucoma, POAG

**Research involving**
Human

### Sponsors and support

**Primary sponsor:** Universitair Medisch Centrum Groningen
**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** Adaptation time, Contrast sensitivity, Glaucoma, High light conditions

## Outcome measures

### Primary outcome

Measurement of contrast sensitivity, visual field and adaptation time at high

light conditions.

### Secondary outcome

N/A

# Study description

### Background summary

Many patients with glaucoma experience difficulties while seeing in light and dark conditions. These difficulties are not only present in patients with severe glaucoma, but also in patients with a normal visus and an intact visual field. We already researched the influence of light- and dark conditions using a questionnaire (METc 2014/338) and confirmed the difficulties described above. In addition, patients with glaucoma experience longer light- and dark adaptation times compared with healthy subjects. In a aformer project (METc 2014/409) we reseaerched the influence of static low light conditions and in the project that followed (METc 2015/276) we researched the adaptation time to low light conditions. In the study of this application, we continue with the influence of high light intensities on the contast sensitivity, visual field and adaptation time. There is no literature available of the influence of high light intensities. Because there was no device available to provide these high intensities, we built an experimental setup to do so in a pilot study (METc 2015/500).

### Study objective

To determine the contrast sensitivity, visual field and adaptation time at high light conditions.

### Study design

Case-control study

**Study burden and risks**

A single visit, in which the contast sensitivity, visual field and adaptation time at high light conditions will be measured. There are few extra tests for healthy controls to check the healthy state of the eye. Total time invested is 1.5 hours for glaucoma patients and 2 hours for healthy controls. It is possible that an eye disease is discovered during the course of this study. The resulting psychological stress to the subject can be a disadvantage. However, the advantage is an early start of adequate treatment. All measurements are conducted using optical techniques that do not touch the eye and therefore are completely harmless. There is no risk during the experiments. No mydriasis (pupil dilation) will be implemented.

# 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

Glaucoma patients aged 40-70 years who visit the ophthalmology outpatient department of the UMCG, provide written informed consent form and meet in- and exclusion criteria. ;Healthy subjects will consist of people who have signed in, without ophthalmic abnormalities and provide written informed consent.

## Exclusion criteria

Glaucoma patients:
* Visual acuity below 1.0 (below 50 years of age) or below 0.8 (above 50 years).
* Visual field defects not caused by glaucoma. ;Healthy subjects:
* Subjects with an eye disease.
* Subjects with a first grade relative with glaucoma, or with high eye pressure in the past.
* Visual acuity below 1.0 (below 50 years of age) or below 0.8 (above 50 years).
* Visual field defects which are not understood.

# 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: | Diagnostic |

## Recruitment

NL

| | |
|---|---|
| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 16-08-2016 |
| Enrollment: | 60 |
| Type: | Actual |

# Ethics review

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|---|---|
| Approved WMO Date: | 16-06-2016 |
| Application type: | First submission |
| Review commission: | METC Universitair Medisch Centrum Groningen (Groningen) |

# Study registrations

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

No registrations found.

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

ID: 23777
Source: NTR
Title:

## In other registers

| Register | ID |
|---|---|
| CCMO | NL57429.042.16 |
| Other | NTR24160 |
| OMON | NL-OMON23777 |