# Comparison of Optos fundus photography versus fundoscopy for detecting retinal defects and retinal detachments.

Published: 03-08-2012
Last updated: 01-05-2024

The aim of this study is to determine if retinal defects and detachments can be detected by fundus photographs taken with the Optos 200Tx fundus camera.

| | |
|---|---|
| **Ethical review** | Approved WMO |
| **Status** | Will not start |
| **Health condition type** | Retina, choroid and vitreous haemorrhages and vascular disorders |
| **Study type** | Observational non invasive |

## Summary

### ID

NL-OMON37870

**Source**
ToetsingOnline

**Brief title**
Comparison of Optos fundus photography versus fundoscopy.

### Condition

- Retina, choroid and vitreous haemorrhages and vascular disorders

**Synonym**
retinal defect, retinal detachment

**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:** fundus photography, Optos, retinal defect, retinal detachment

## Outcome measures

### Primary outcome

The proportion of retinal defects/detachments detected on Optos fundus

photographs. The gold standard is a confirmed defect or detachment detected

with fundoscopy performed by an ophthalmologist.

### Secondary outcome

none

# Study description

### Background summary

Retinal defects and detachments can be seen in a variety of retinal pathology: posterior vitreous detachment (PVD), macular pucker or after a blunt trauma to the eye. PVD is by far the most common cause. Patients with a PVD present with complaints of floaters and light flashes. In the normal aging process, the vitreous gel changes its consistency - seen by the patient as floaters - and looses its usual shape. As a result, it begins to move away from the retina at the back of the eye towards the centre of the eye. As it moves, it can pull on the retina and then a patient sees flashes of light. In some but not all patients, a tear in the retina is torn at the moment of the PVD. Tears can be repaired with laser photocoagulation. If not timely treated, fluid cumulates under the retina and this results in a retinal detachment. Surgery is needed to reattach the retina. If surgery is delayed for whatever reason, the probability of a beneficial outcome decreases rapidly.

As PVD is quite common, screening - by fundoscopy - for retinal defects and detachments is a significant part of the workload of the ophthalmologist. It would be very efficient if this screening could be deferred to auxiliary personnel. Unfortunately, fundoscopy is difficult and requires a lot of experience. Recent advances in technology yielded the Optos 200Tx non-mydriatic fundus camera. This camera is able to photograph 200 degrees (essentially the entire) of retina at once. Thus, this camera might assist auxiliary personnel in screening for retinal defects/detachments in patients with compaint that

indicate the presence of a PVD (light flashes and floaters).

### Study objective

The aim of this study is to determine if retinal defects and detachments can be detected by fundus photographs taken with the Optos 200Tx fundus camera.

### Study design

Cross-sectional observation study in a clinical setting, the outpatient department of the department of Ophthalmology, UMCG.

### Study burden and risks

A single fundus photograph will be taken with the Optos 200Tx non-mydriatic fundus camera during a regular care visit (because of complaints of light flashes and/or floaters) to our outpatient department. The mydriasis (instillation of drops that dilate the pupil) is part of our routine eye care and is necessary to perform fundoscopy (the Optos does not require mydriasis).

## Contacts

**Public**
Universitair Medisch Centrum Groningen

hanzeplein 1
groningen 9700 RB
NL
**Scientific**
Universitair Medisch Centrum Groningen

hanzeplein 1
groningen 9700 RB
NL

## Trial sites

### Listed location countries

Netherlands

# Eligibility criteria

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

## Inclusion criteria

All patients aged 18 or above complaining of light flashes and floaters

## Exclusion criteria

Age below 18 years.
Absence of informed consent

# Study design

## Design

**Study type:** Observational non invasive

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

## Recruitment

NL

| | |
|---|---|
| Recruitment status: | Will not start |
| Enrollment: | 300 |
| Type: | Anticipated |

# Ethics review

Approved WMO

| | |
|---|---|
| Date: | 03-08-2012 |
| 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

No registrations found.

## In other registers

| Register | ID |
| --- | --- |
| CCMO | NL40015.042.12 |