

# Risk factors for glaucoma in musicians

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Primary Objective:\* To study the impact of playing wind instruments for the development of OHT and (progression of) glaucoma.Secondary Objective(s): \* To study the risk factors for the development of OHT and glaucoma in professional musicians.\* To...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Eye disorders NEC
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON36984

### Source

ToetsingOnline

### Brief title

Glaucoma-musicians

### Condition

- Eye disorders NEC

### Synonym

glaucoma, increased eye pressure

### Research involving

Human

### Sponsors and support

**Primary sponsor:** Oogheelkunde

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

### Intervention

**Keyword:** eye disease, glaucoma, impaired visual acuity, musicians

## Outcome measures

### Primary outcome

Primary Objective:

\* To study the impact of playing wind instruments for the development of OHT and (progression of) glaucoma.

### Secondary outcome

Secondary Objective(s):

\* To study the risk factors for the development of OHT and glaucoma in professional musicians.

\* To study the prevalence of visual problems and eye diseases in professional musicians.

## Study description

### Background summary

Glaucoma is a possibly blinding condition for which early detection and treatment is warranted. Playing wind instruments, especially high resistance wind instruments (oboe/bassoon/trumpet/French horn), may predispose the onset of ocular hypertension (OHT) and glaucoma by increasing intraocular pressure (IOP). However, evidence concerning the exact relationship between the playing of wind instruments and the onset of OHT or glaucoma is scarce and the impact of playing wind instruments on the progression of the disease in patients who already have glaucoma is not known. Additionally, the magnitude of musicians who are at risk is not known. Identifying musicians who are at risk for glaucoma or already have glaucoma and play wind instruments for many hours per week will promote early and efficient treatment of patients in this particular population. Studying the amount and mechanism of IOP increase of musicians while playing their different instruments will lead to a better understanding of which musicians are at risk for developing OHT and (progression of) glaucoma. If the hypothesis that wind musicians have a higher risk of OHT and glaucoma can be proven, the development of a screening program for early detection and treatment of OHT and glaucoma in wind instrument players can be useful. Additionally, there is some evidence that visual and other eye problems may

occur quite frequently among musicians in orchestras. For example, uncorrected refractive errors may lead to early fatigue, painful eyes and headaches. This has not been investigated in the Netherlands.

With the contact lens device for continuous IOP monitoring, IOP can be monitored in ambulatory mode and during normal activities (including studying at home with their instrument, rehearsals, rest, meals, and the sleep period), in the habitual position of the participants. This will give the researchers important information concerning the frequency of IOP peaks during the day and night, from which valuable feedback and advice can be given to the study participants concerning their risk for the development or progression of glaucoma.

## **Study objective**

Primary Objective:

- \* To study the impact of playing wind instruments for the development of OHT and (progression of) glaucoma.

Secondary Objective(s):

- \* To study the risk factors for the development of OHT and glaucoma in professional musicians.
- \* To study the prevalence of visual problems and eye diseases in professional musicians.

## **Study design**

Observational study.

## **Study burden and risks**

There are no risks involved for the participants. Screening for OHT and glaucoma together with other eye complaints may be very beneficial for the early diagnosis and treatment of affected individuals and awareness of group related problems, if applicable.

However, in case an unsuspected eye disease is diagnosed during screening, this may be a burden to the patient and may cause further difficulties if the change to take out a policy on health insurance is hampered.

There are no substantial risks expected for the participants who agree to undergo IOP monitoring over a 24 hour period with a sensing contact lens, which is pure silicone with an oxygen plasma surface treatment to create a highly hydrophilic interface between the sensor and all tissues in contact. The device provides a level of oxygen permeability equal to or greater than the recommended boundaries of extended wear to avoid corneal hypoxia. This means that the cornea is as protected as possible from metabolic stress during the

monitoring period.

A possible burden may be that with the use of the sensing contact lens, an antenna is placed round the eye, which is connected to a portable recorder through a thin flexible data cable. The recorder is placed on the chest. The antenna is visible for other people.

## Contacts

### **Public**

Selecteer

P. Debyelaan 25  
6202 AZ Maastricht  
NL

### **Scientific**

Selecteer

P. Debyelaan 25  
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NL

## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### **Age**

Adults (18-64 years)

Elderly (65 years and older)

### Inclusion criteria

All full time or part time professional players of participating symphony or wind orchestras

## Exclusion criteria

Difficulty in reading or speaking Dutch

## Study design

### Design

**Study type:** Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Diagnostic

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 01-05-2010

Enrollment: 120

Type: Actual

## Ethics review

Approved WMO

Date: 10-02-2010

Application type: First submission

Review commission: METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

Approved WMO

Date: 19-09-2011

Application type: Amendment

Review commission: METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

## 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	NL25853.068.09