

# Lifestyle and risk of developing open-angle glaucoma: the Rotterdam study

Ramdas WD, Wolfs RC, Hofman A, de Jong PT, Vingerling JR, Jansonius NM.

Department of Ophthalmology, Erasmus Medical Center Rotterdam, PO Box 2040, 3000 CA Rotterdam, the Netherlands. j.vingerling@erasmusmc.nl.

**OBJECTIVE:** To determine whether lifestyle-related risk factors, such as socioeconomic status, smoking, alcohol consumption, and obesity, are associated with open-angle glaucoma (OAG) .

**METHODS:** Participants from the Rotterdam Study, a prospective population-based cohort study, were considered eligible if they participated at both baseline and follow-up and if they had no OAG at baseline. All participants underwent an identical ophthalmologic examination at all visits, including intraocular pressure measurements, optic nerve head assessment, and perimetry. Lifestyle-related factors were assessed by questionnaires by trained research assistants or measured during the examinations (body mass index and waist to hip ratio) . Cox proportional hazard regression analysis was applied to calculate hazard ratios.

**RESULTS:** Of 3939 eligible participants, 108 (2.7%) developed OAG during 9.7 years' mean follow-up. No statistically significant effect of socioeconomic status, smoking, or alcohol intake was found. In women, each unit increase in body mass index resulted in a 7% decrease in the risk of developing OAG ( $P = .04$ ) . There was a significant increasing effect of body mass index on intraocular pressure ( $P < .05$ ) .  
**CONCLUSIONS:** Obesity appears to be associated with a higher intraocular pressure and a lower risk of developing OAG. These associations were only present in women. Other lifestyle-related factors, such as socioeconomic status, smoking, and alcohol consumption, were not associated with OAG.

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