

# Long-Term Alcohol Consumption and Risk of Exfoliation Glaucoma/Glaucoma Suspect among US Health Professionals

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**OBJECTIVE:** To assess the association between intakes of total alcohol and individual alcoholic beverages and the incidence of exfoliation glaucoma/glaucoma suspect (XFG/XFGS) .

**DESIGN:** Prospective cohort study.

**PARTICIPANTS:** A total of 195,408 participants of the Nurses' Health Study (1980-2018) , the Health Professionals Follow-up Study (1986-2018) , and the Nurses' Health Study II (1991-2019) were followed biennially. Eligible subjects at each 2-year risk period were 40+ years old and free of XFG/XFGS with available data on diet and ophthalmic examinations.

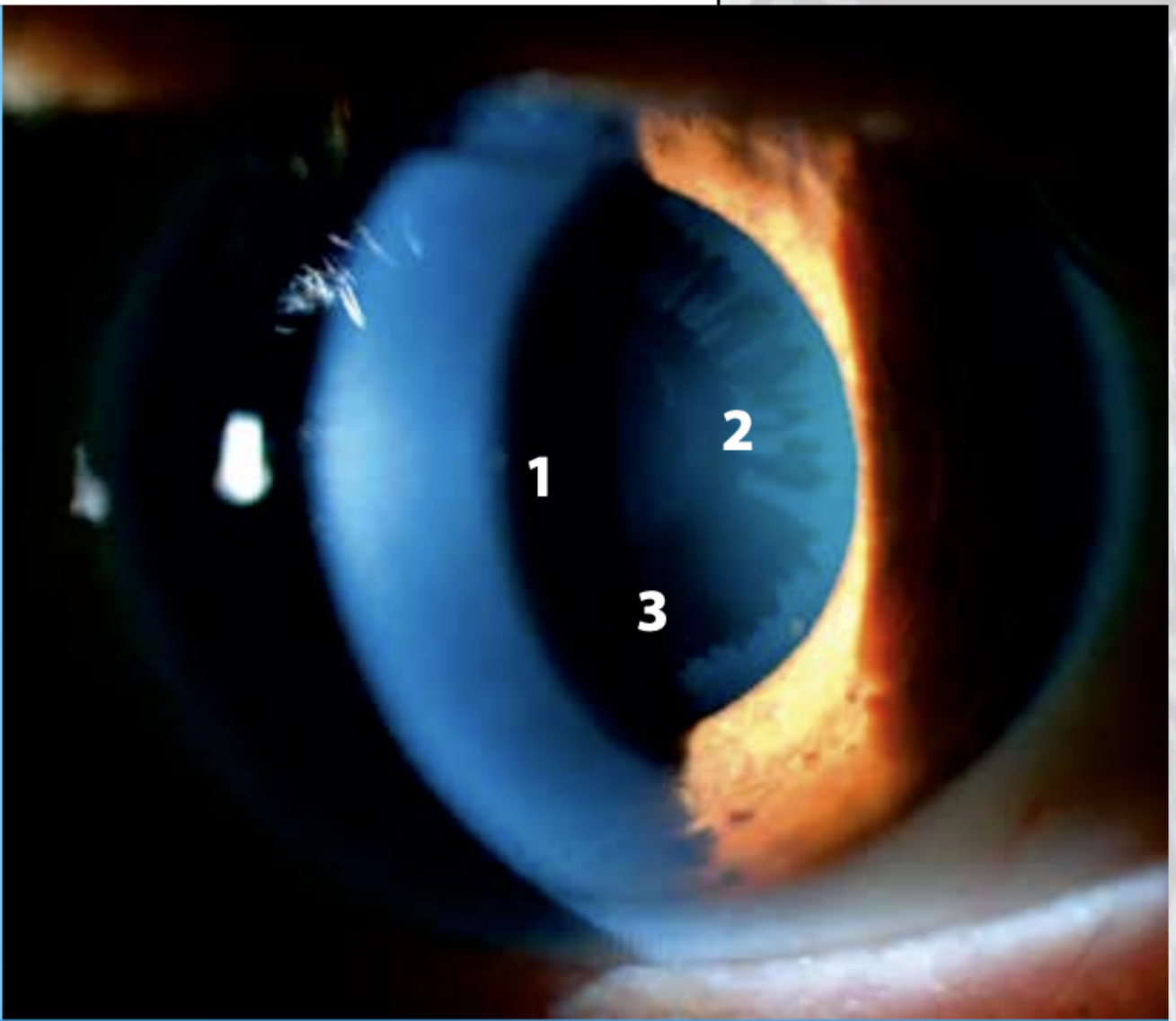
**METHODS:** We obtained cumulatively averaged total (primary exposure) and individual alcoholic beverages including beer, wine, and liquor from validated dietary information every 2-4 years.

**MAIN OUTCOME MEASURE:** Confirmed incident XFG/XFGS using medical records that included information on slit lamp examination, maximal untreated intraocular pressure, and data from reliable visual field tests. We used per-eye Cox proportional hazards models, accounting for inter-eye correlations, to estimate multivariable-adjusted relative risks (MVRRs) and 95% confidence intervals (CIs) .

**RESULTS:** During 6,877,823 eye-years of follow-up, 705 eyes with XFG/XFGS were documented. Greater total alcohol consumption was significantly associated with higher XFG/XFGS risk: the MVR for XFG/XFGS for cumulatively averaged alcohol consumption =15+ g/day vs. non-drinking was 1.55 (95% CI, 1.17-2.07; P<sub>trend</sub>=0.

**CONCLUSION:** Long-term alcohol consumption was associated with a higher risk of XFG/XFGS. Our findings provide further clues regarding the etiology of XFG/XFGS.

Figure 1



Classic clinical pattern of the exfoliation membrane on the lens surface: 1=central disc; 2=intermediate zone; 3=peripheral zone. (Reproduced with permission from G Holló's archives).