

National study finds reduced glaucoma risk in patients who take statins

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People who take statins to reduce their risk of cardiovascular disease are less likely to be diagnosed with the most common form of glaucoma, according to a nationwide study of more than 300,000 patients. A University of Michigan School of Medicine research team, directed by Joshua Stein, MD, MS, found that the risk for glaucoma was reduced by eight percent in patients who took statins continuously for two years, compared with patients who did not take statins. The study, the largest to date on the topic, is published in the October issue of *Ophthalmology*, the journal of the American Academy of Ophthalmology.

Dr. Stein's study was sparked by growing evidence that statin use may protect the optic nerve and retinal [nerve fibers](#), structures that are essential to good vision and are damaged by [glaucoma](#). His team used healthcare claims data for a diverse population of Americans aged 60 and older who took statins to control high blood levels of unhealthy fats, a condition known as hyperlipidemia, between 2001 and 2009. The researchers assessed patients' risk for open-angle glaucoma (OAG). Unlike earlier studies, their analysis adjusted for patients who also had diabetes and/or hypertension to prevent distortion of the results.

Several of the study's findings suggest that statin use may be most important before glaucoma is diagnosed, or in the early stages of the disease. Dr. Stein's research may lead to new preventive treatments that could especially benefit groups at increased risk, including African-Americans, Hispanics and those with a family history of glaucoma.

Glaucoma affects more than 2.7 million Americans age 40 and older . If untreated, glaucoma causes vision loss or blindness by damaging the eye's optic nerve. The optic nerve sends signals from the retina—a layer of light-sensitive tissue at the back of the eye—to the brain, where these signals are interpreted as the images we see. Only about half of the people who have glaucoma know it, since symptoms are rarely noticed in the early stages and [vision loss](#) is very gradual in most cases.

"Statins' apparent ability to reduce glaucoma risk may be due to several factors, including improved blood flow to the [optic nerve](#) and retinal nerve cells and enhanced outflow of the aqueous fluid, which may reduce intraocular pressure," said Dr. Stein. "While more research is needed, we hope our results may contribute to saving the sight of thousands who are predisposed to glaucoma."

Dr. Stein cautioned that the study results apply only to patients with [hyperlipidemia](#), and that further study is needed to determine whether statins also protect patients who don't have this diagnosis or have other characteristics that differ from the study population.

Provided by American Academy of Ophthalmology

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