

Common Cholesterol-Lowering Drug Found to Slow Vision Loss in Diabetes Patients

First-of-Its-Kind Study Shows Fenofibrate Reduces Eye Disease Progression by 27%

ORLANDO, FL. (JUNE 21, 2024) – Today, findings from the Lowering Events in Non-proliferative retinopathy in Scotland (LENS) Trial revealed that fenofibrate, a medication used for many years to reduce blood fat levels, significantly reduces the progression of diabetic retinopathy, a diabetes-related eye disease. Delivered by Oxford Population Health, this is the first large-scale trial specifically designed to investigate the effect of this drug on eye outcomes in people with early diabetic retinopathy. The results were presented at a symposium during the American Diabetes Association’s (ADA) 84th Scientific Sessions in Orlando, FL, and were simultaneously published in *NEJM Evidence*.

Diabetic retinopathy is a [leading cause of visual loss globally, with increasing prevalence in many regions of the world over the last 30 years](#). The condition is caused by high blood sugar levels damaging the blood vessels in the retina, leading to vision problems and even blindness. Effectively managing blood glucose levels is important to reduce the risk of disease progression, but this can be difficult to achieve for many patients and there are no other treatment options available for people with early retinopathy. The LENS Trial sought to address this challenge by evaluating the impact of an existing solution for high cholesterol on diabetic retinopathy outcomes.

This randomized controlled trial was conducted within Scotland’s Diabetic Eye Screening (DES) program, a national scheme that provides regular retinal imaging to all patients with diabetes, aged 12 years or more, across the country. The trial included 1,151 adults with early diabetic retinopathy or maculopathy. They were assigned to receive either 145 mg fenofibrate tablets or placebo. The primary outcome was a composite measure of developing referable diabetic retinopathy or maculopathy (i.e. a grading of diabetic eye disease that warrants specialist ophthalmic review) or requiring treatment with laser, intravitreal injection or vitrectomy.

Results indicate that fenofibrate may be an effective option for people with early diabetic retinopathy. Over 4 years, participants taking fenofibrate saw a 27% reduction in the progression of their eye disease compared to those taking the placebo (22.7% vs. 29.2%), a result that was highly statistically significant ($p=0.006$). Additionally, fenofibrate reduced the chance of any progression of retinopathy and it cut the risk of developing macular edema (swelling in the retina).

“Diabetic retinopathy remains a leading cause of visual loss and we need simple strategies that can be widely used to reduce the progression of diabetic eye disease,” said Dr. David Preiss, MRCP, FRCPath, PhD, Associate Professor at Oxford Population Health. “Results from the

LENS trial suggest that fenofibrate may provide a valuable addition to treat people with diabetic retinopathy.”

Running the trial in partnership with the Scottish DES has also allowed the LENS investigators to collect 9,000 retinal images and these will be analyzed using machine learning tools to better understand the effect of fenofibrate in the diabetic eye. Participants' progress will continue to be tracked through linkage to national health records to understand the long-term impacts of fenofibrate therapy on health.

Research presentation details:

Dr. Preiss will present the findings during the following symposium:

- Symposium: The Effect of Fenofibrate on Progression of Diabetic Retinopathy—Results from the LENS Trial
- Presented on Friday, June 21, 2024, at 3:45 PM EDT.

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About the ADA’s Scientific Sessions

The ADA's 84th Scientific Sessions, the world's largest scientific meeting focused on diabetes research, prevention, and care, will be held in Orlando, FL on June 21-24. More than 11,000 leading physicians, scientists, and health care professionals from around the world are expected to convene both in person and virtually to unveil cutting-edge research, treatment recommendations, and advances toward a cure for diabetes. Attendees will receive exclusive access to thousands of original research presentations and take part in provocative and engaging exchanges with leading diabetes experts. Join the Scientific Sessions conversation on social media using #ADAScientificSessions.

About the American Diabetes Association

The American Diabetes Association (ADA) is the nation’s leading voluntary health organization fighting to bend the curve on the diabetes epidemic and help people living with diabetes thrive. For 83 years, the ADA has driven discovery and research to treat, manage, and prevent diabetes while working relentlessly for a cure. Through advocacy, program development, and education we aim to improve the quality of life for the over 136 million Americans living with diabetes or prediabetes. Diabetes has brought us together. What we do next will make us Connected for Life®. To learn more or to get involved, visit us at diabetes.org or call 1-800-DIABETES (1-800-342-2383). Join the fight with us on Facebook ([American Diabetes Association](https://www.facebook.com/AmericanDiabetesAssociation)), Spanish Facebook ([Asociación Americana de la Diabetes](https://www.facebook.com/AsociaciónAmericanaDeLaDiabetes)), LinkedIn ([American Diabetes Association](https://www.linkedin.com/company/AmericanDiabetesAssociation)), Twitter ([@AmDiabetesAssn](https://twitter.com/AmDiabetesAssn)), and Instagram ([@AmDiabetesAssn](https://www.instagram.com/AmDiabetesAssn)).