



Visual Decline in Diabetic Retinopathy: A Slow Shift in Sight

Adrian Rellford*

Department of Ophthalmic Sciences, Bellmere University, Halifax, Canada

DESCRIPTION

Diabetic retinopathy is a condition that impacts individuals living with long-term diabetes. It stems from prolonged periods of elevated blood sugar levels, which affect the small vessels in the retina. The retina is responsible for processing visual input and sending information to the brain. When these vessels become damaged, they can leak fluids or bleed, leading to visual disturbances and, in more advanced cases, loss of vision.

In the early stages, diabetic retinopathy may not cause any noticeable symptoms. The process often begins with mild changes, such as swelling in the blood vessels or the formation of small bulges known as micro aneurysms. Over time, if blood sugar remains poorly managed, the condition can advance. As it progresses, the vessels may close off, restricting blood flow to the retina. This can lead to areas of the retina receiving less oxygen, encouraging the growth of new, abnormal vessels in a process called neovascularization.

These newly formed vessels are often fragile and prone to bleeding. If bleeding occurs in the central part of the eye, known as the vitreous, it can obscure vision significantly. In some cases, scar tissue develops as a result of abnormal vessel growth and bleeding. This scar tissue can pull on the retina, increasing the risk of a retinal detachment, which can lead to severe vision loss if not addressed quickly.

The condition is more common in people who have lived with diabetes for many years. However, the rate at which it develops can vary depending on several factors. Blood sugar control plays an important role. Individuals who maintain stable glucose levels are generally less likely to experience rapid progression. High blood pressure and elevated cholesterol can also affect the health of the retina and may contribute to the development of this condition.

Pregnancy, kidney disease, and poor diabetes management can further increase the risk. Regular eye examinations are recommended for individuals diagnosed with diabetes, even if no symptoms are present. These examinations typically involve the use of eye drops to dilate the pupil, allowing the clinician to

view the retina in more detail. Photographs may also be taken to monitor changes over time.

Treatments vary depending on the severity of the disease. In earlier stages, active monitoring and improving blood sugar control may help limit progression. In more advanced stages, treatments can include laser therapy to reduce or eliminate abnormal vessels. Another common method involves the use of injections into the eye to limit swelling and prevent vessel growth. These injections, which often contain anti-VEGF medication, are administered at regular intervals under sterile conditions. In cases where bleeding into the vitreous is severe or when scar tissue threatens the structure of the retina, surgery may be required to remove the vitreous and repair the damage.

Living with diabetic retinopathy often involves consistent medical care and ongoing attention to systemic health. Individuals are encouraged to monitor their blood sugar, take medications as prescribed, and attend regular appointments with both their primary care providers and eye specialists. Lifestyle choices, including maintaining a healthy diet and exercising regularly, can contribute to better outcomes. Avoiding tobacco and managing other conditions like high blood pressure may also benefit overall eye health.

Public health awareness of this disease has grown, yet many people still remain unaware that it can develop without early symptoms. Since vision is something most people take for granted until it is affected, regular screening is essential. Eye health professionals emphasize the importance of yearly exams for anyone with type 1 or type 2 diabetes. In pregnant individuals with diabetes, even more frequent exams may be needed due to hormonal changes that can influence blood vessels in the eyes.

CONCLUSION

Technology has allowed for better detection and monitoring of diabetic retinopathy. Imaging techniques can track small changes in the blood vessels of the retina, making it possible to intervene

Correspondence to: Adrian Rellford, Department of Ophthalmic Sciences, Bellmere University, Halifax, Canada, E-mail: adrian.rellford@bellmereuniv.ca

Received: 01-Sep-2025, Manuscript No. JEDD-25-30057; **Editor assigned:** 03-Sep-2025, PreQC No. JEDD-25-30057 (PQ); **Reviewed:** 17-Sep-2025, QC No. JEDD-25-30057; **Revised:** 24-Sep-2025, Manuscript No. JEDD-25-30057 (R); **Published:** 01-Oct-2025, DOI: 10.35248/2684-1622.25.10.289

Citation: Rellford A (2025). Visual Decline in Diabetic Retinopathy: A Slow Shift in Sight. J Eye Dis Disord. 10:289.

Copyright: © 2025 Rellford A. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

earlier than before. These tools provide valuable data for managing the condition effectively over time.

Despite the challenges posed by diabetic retinopathy, many individuals are able to retain functional vision with timely diagnosis and proper treatment. The outlook depends heavily

on how early the condition is identified and how well diabetes is controlled over the long term. For those affected, staying informed and engaged with their medical care can make a meaningful difference in their ability to maintain visual independence throughout life.