



What is Diabetic Retinopathy?

Diabetic Retinopathy is a complication of diabetes that damages the small blood vessels inside the retina at the back of the eye, which leads to vision loss.

There are three main types of Diabetic Retinopathy.

- Non-proliferative retinopathy – early form of the disease, where the retinal blood vessels leak fluid or bleed.
- Macular edema is a swelling of the macular. This is the leading cause of vision loss in diabetes.
- Proliferative retinopathy is an advanced form of the disease and occurs when blood vessels in the retina disappear and are replaced by new fragile blood vessels that bleed easily.

What causes Diabetic Retinopathy?

Diabetic Retinopathy is caused by high blood glucose levels over long periods of time.

The small blood vessels in the eye become blocked and the blood supply to the retina is cut off.

New blood vessels grow but because they are fragile they can leak easily.

Leaking blood vessels can cause a loss of vision and scar tissue may also develop, which pull the retina away from the back of the eye and possibly cause blindness.



Almost everyone with Type 1 diabetes and more than 60% of those with Type 2 diabetes will develop some form of diabetic eye disease within 20 years of diagnosis.

Diabetic Retinopathy

Risk factors, symptoms, prevention & treatment

Risk factors

A number of risk factors contribute to the development of diabetic retinopathy.

Anyone with diabetes is at risk of developing Diabetic Retinopathy.

The longer the person has diabetes, the greater the risk.

People with diabetes (Type1 & Type 2) are 25 times more likely to experience a vision loss than people without diabetes.

Poor control of diabetes and lack of proper treatment can result in Diabetic Retinopathy becoming more serious and causing loss of vision and blindness.

(source: <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/diabetic-retinopathy>)

Symptoms

What are the symptoms of diabetic retinopathy?

At first Diabetic Retinopathy may cause no symptoms or only mild vision problems, but if poor diabetes management continues it can result in blindness.

Symptoms of Diabetic Retinopathy include:

- sudden changes in vision
- blurred vision
- double vision
- seeing spots or floaters

(source: <http://www.healthinfonet.ecu.edu.au/uploads/key-facts/eye/diabetic-retinopathy-keyfacts.pdf>)

Prevention

4 preventive measures may reduce the chances of acquiring a vision loss

- Having good control of diabetes
- Having regular eye checks.
- Receiving timely treatment
- Follow a healthy diet and exercise

Treatment

The treatment for Diabetic Retinopathy will be different for each person depending on how long they have had diabetes, and its severity.

Diabetic Retinopathy may require laser surgery to repair leaking blood vessels or to prevent new leaky blood vessels from forming. Injections of medications into the eye may be needed to decrease inflammation or to stop the formation of new blood vessels.

A surgical procedure to remove and replace the gel-like fluid in the back of the eye (the vitreous) may be needed. If the retina has detached this may also require surgery.

(source: <http://www.healthinfonet.ecu.edu.au/uploads/key-facts/eye/diabetic-retinopathy-keyfacts.pdf>)

Early detection,
timely treatment
& appropriate
follow-up may
prevent vision loss
or blindness



bullet
proof

What does it mean to an 18-year-old man when you've been diagnosed with Type 1 diabetes and there are no noticeable health impacts on your life?

"At this age you feel invincible and bullet proof" says Tony Bailey, who was diagnosed with Type 1 diabetes on the brink of adulthood.

"You have very different priorities, and controlling diabetes isn't one of them. You want to be like everyone else and that involves not doing anything differently"

Tony Bailey, now in his 50's, who has a loving wife and seven children, ran a construction company in Newcastle until three years ago. His working life came to a sudden halt when he had a stroke whilst driving. The stroke affected his balance and spatial recognition, and forced him to re-evaluate his overall health and how to manage his diabetes. Unfortunately, after his stroke a number of other complications occurred.

Tony started noticing little floaters that he could see very clearly when staring at a blank wall. These were early signs that changes to his vision were occurring. The major change in his vision occurred 12 months ago. "I was lying in bed when I heard a loud bang. I went outside to have a look as I thought there had been a car crash, but when I tried to look outside it seemed as if the street light had blown. I went to bed not thinking much of it".

When Tony woke the next morning all he could see out of his left eye was red. Tony's retina had detached. The ophthalmologist tried to repair the damage but was unable to. Since then, Tony has lost more vision in his right eye due to diabetic retinopathy.

Although Tony's vision eventually stabilised, his confidence to travel around safely had dropped. A year ago he decided to contact Guide Dogs NSW/ACT. His close friend, who was blinded by the Bali bombings, recommended the organisation's free services. Tony is now working with an Orientation & Mobility Specialist from Guide Dogs NSW/ACT. He is learning how to use the long cane, how to cross roads safely, and how to travel with greater independence, which in turn gives him more confidence.

"Initially it was difficult to use the cane as I felt self-conscious, but I have since realised how much it benefits me", Tony said. "I no longer trip over uneven surfaces or bump into anyone. I used to have difficulty when walking in shadowy areas, but the cane assists with this. It has improved my life greatly and the training has made me feel more confident".

Diabetes can have a major effect on someone's health if not controlled. "Anyone with diabetes is at risk of developing diabetic retinopathy", says Tony. "Get your eyes checked regularly, even if you believe diabetes won't impact you."

Aunty Mary's story

Diabetes & vision loss



I'm Aunty Mary, and I'm a Bundjalung woman. I'm one of 12; eight in my family have diabetes. I am the only one who has vision loss from diabetes.

My eyesight changed from day to day, but when I lost my sight I was terrified of going outside. After listening to an ad on TV about Guide Dogs – that they offered cane training - not just dogs, I contacted them.

An instructor from Guide Dogs NSW/ACT came to my home to show me how to use a long cane. They taught me how to get to the shops, cross the road safely and move around my community on my own. They were able to help my family too.

I wouldn't have gained my confidence without the training and support from Guide Dogs NSW/ACT.

I have my cane in Aboriginal colours – it makes me feel proud.

For more information and useful resources about Aunty Mary and how best to assist someone with vision loss go to Australian Indigenous Health InfoNet.

<http://www.healthinonet.ecu.edu.au/key-resources/promotion-resources?id=25903>



Key facts

Around 1 in 16 Indigenous people have diabetes and of these, 1 in 3 has Diabetic Retinopathy.

Aboriginal and Torres Strait Islander communities are six times more likely to get vision problems

Source: <http://www.healthinonet.ecu.edu.au/other-health-conditions/eyeworkers/diabetic-retinopathy/key-facts>

Vision loss support services



Guide Dogs NSW/ACT provides a variety of supports and training for people with Diabetic Retinopathy that increase their independence, minimise the impact of vision loss and build capacity for education, employment & social participation.

For further information about how Guide Dogs NSW/ACT can support a person with Diabetic Retinopathy visit our website, guidedogs.com.au

Guide Dogs NSW/ACT is a registered Service Provider under the National Disability Insurance Scheme (NDIS). From July 1, 2016, the NDIS will begin to become available to those living in the Central Coast, Northern Sydney, South Western Sydney, Southern NSW and Western Sydney regions, along with the remaining populations in Hunter New England and Nepean-Blue Mountains.

Guide Dogs

NSW/ACT



Do you have a patient or know someone who struggles to read, recognise faces, drive and perform daily tasks?

Contact **Guide Dogs NSW/ACT** for a free functional vision assessment on **1800 484 333**

Related Websites

Guide Dogs NSW/ACT
guidedogs.com.au

Diabetes Australia
diabetesaustralia.com.au

Diabetes NSW
diabetesnsw.com.au

Eye and vision loss toolkit for indigenous australians
<https://academy.brienholdenvision.org/browse/resources/courses/eye-toolkit>

A guide to vision loss: Aunty Mary's Story
http://www.guidedogs.com.au/content/upload/files/Aunty_mary_brochure.pdf

Guide Dogs GPS app

Available in the iTunes App Store.

A fully accessible turn by turn GPS iPhone app with the normal navigation features of a GPS app plus unique features for users with vision impairments.

The app combines voice commands with physical actions, like shaking the phone to activate.



Image sourced from sendergroup.com

D-Life Diabetes NSW app

Available in the iTunes App Store and Google Play.

This app has been developed by Diabetes NSW, with funding from Newman's Own Foundation, to help young people with type 1 diabetes in the transition to adulthood. With detailed information on blood testing and insulin, the app also has the following great features to help you live your life without the complications of diabetes.

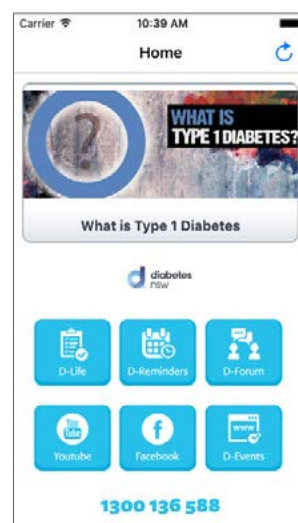


Image sourced from Diabetes Australia

contact us

Guide Dogs NSW/ACT provides all of its services, including mobility aids, at no cost. To refer someone to us, with their permission, please phone one of the offices below:

Sydney East	(02) 9412 9300	Lismore	(02) 6621 8475
Sydney West	(02) 9676 5802	Newcastle	(02) 4925 3066
Low Vision Clinic	(02) 9412 9342	Orange	(02) 6362 6625
ACT	(02) 6285 2988	Tamworth	(02) 6761 3152
Albury	(02) 6041 5201	Coffs Harbour	(02) 6652 7424
Wollongong	(02) 4225 9247		

Or visit our website guidedogs.com.au

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