

Eye health

Key facts

Information for health care providers
to assist their everyday practice

Diabetic retinopathy among Aboriginal and Torres Strait Islander people

Diabetic retinopathy (DR) is a serious eye problem that can develop in people with diabetes and can lead to vision loss and blindness. It can damage the eye before people know they have diabetes or experience any problems with their vision.

The good news is:

- Up to 98% of severe vision loss and blindness from DR can be prevented if people receive recommended eye checks and treatment.
- Aboriginal and Torres Strait Islander people with diabetes are now more likely to receive yearly eye checks than in the past and are less likely to experience vision loss due to DR.

But despite signs of progress:

- Aboriginal and Torres Strait Islander people are still at greater risk of developing diabetes and DR than non-Indigenous people.
- For Aboriginal and Torres Strait Islander people with diabetes, only half will have received their last yearly eye check for DR, and a quarter will never have had one.

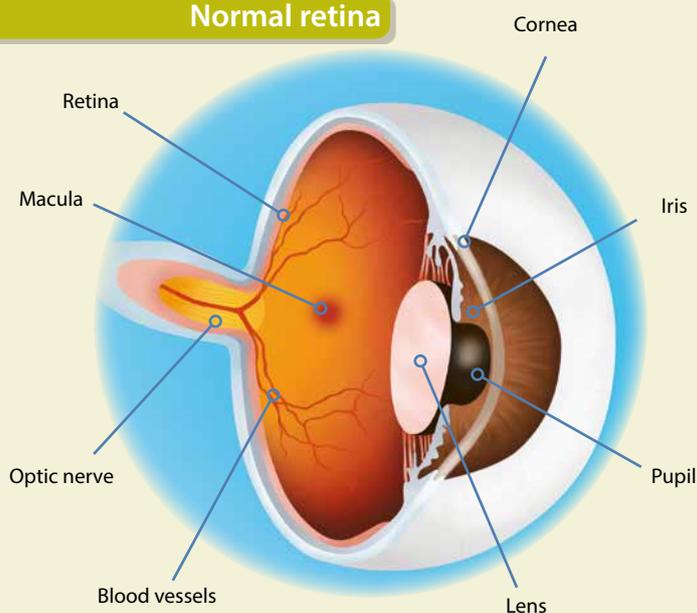
Now it is important that:

- Aboriginal and Torres Strait Islander people are supported to manage their diabetes and get yearly eye checks so that DR is detected early.
- Yearly eye checks include: a medical history, vision test, retinal examination, and referral if specialist eye care is needed.
- People with DR are given information about eye care pathways and are supported to seek specialist treatment at the right time.

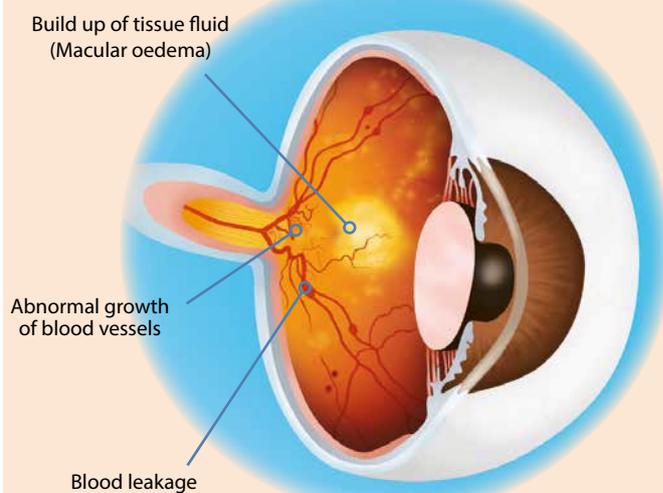
How does diabetic retinopathy occur?

- DR occurs when chronic high blood sugar levels result in changes in blood flow that damage small blood vessels in the retina of the eye. The blood vessels can leak and bleed, abnormal blood vessels can grow, and retinal detachment can occur.
- DR usually affects both eyes and progresses over time through the early (non-proliferative) stages—which are usually asymptomatic (have no symptoms)—to the late (proliferative) stage when severe vision loss can occur.
- When symptoms of vision loss occur they include: spots, floaters, blank areas or dark areas in the visual field.
- DR can lead to an eye condition called diabetic macular oedema that can cause blurry vision at any stage of DR.

Normal retina



Diabetic retinopathy



Source: [Indigenous Eye Health](#)

For more info: [Diabetes eye health: a guide for health care professionals](#) (International Diabetes Federation and The Fred Hollows Foundation, 2015)

Who gets diabetic retinopathy?

- All people with type 1 and type 2 diabetes are at risk of developing DR and the longer they have diabetes the greater the risk.
- Aboriginal and Torres Strait Islander people are three times more likely to have diabetes, which puts them at greater risk of developing DR.
- People with poorly controlled blood sugar, blood pressure and cholesterol levels are more likely to develop DR.

For more stats: [The National Eye Health Survey 2016 report](#) (Foreman, et al., 2016)

Aboriginal and Torres Strait Islander adults with diabetes are

2X

as likely to have vision impairment from DR as non-Indigenous adults with diabetes.¹

Up to

98%

of severe vision loss from DR can be prevented by detecting DR early and treating it at the right time.²

How to prevent vision loss from diabetic retinopathy

People with diabetes need:

- education and lifestyle advice to encourage healthy eating habits and regular exercise
- eye checks when diabetes is diagnosed and regular eye checks afterwards
- medication, if prescribed by a medical practitioner, to control blood sugar, blood pressure and blood cholesterol levels
- early detection of DR and treatment at the right time.

Communities need education about DR.

For more info: [Diabetes eye health: a guide for health care professionals](#) (International Diabetes Federation and The Fred Hollows Foundation, 2015)



healthy eating



regular exercise



prescribed medication



regular eye checks

How to detect diabetic retinopathy

- There are no symptoms in the early stages of DR, so regular eye checks are needed for detection before it progresses to a stage when serious vision loss and blindness can occur.
- [NHMRC guidelines](#) recommend that Aboriginal and Torres Strait Islander people with diabetes have an eye check every year (eye checks for non-Indigenous people are recommended every two years).
- As DR progresses and damage to the retina increases, people may need to have their eyes checked more often.
- Retinal examinations can be carried out by a health worker, nurse or doctor in a primary health care setting if there is a special digital camera available that takes photographs of the retina.
- Retinal examinations can also be carried out by eye specialists (optometrists or ophthalmologists) using a digital camera, ophthalmoscope or slit-lamp.

For info about DR screening: [Check Today, See Tomorrow: diabetic retinopathy screening card](#) (Indigenous Eye Health Unit, 2015)

1. Based on crude figures for Indigenous adults aged 40 years and over and non-Indigenous adults aged 50 years and over.

2. Taylor HR, National Indigenous Eye Health Survey Team (2009) [National Indigenous eye health survey: minim barrng \(tracking eyes\): summary report](#). Melbourne: Indigenous Eye Health Unit, The University of Melbourne

Images of the retina



Normal



Abnormal



Sight-threatening

Source: [Indigenous Eye Health](#)

How to treat diabetic retinopathy

- ⦿ At all stages of DR, people need to manage their diabetes and get regular eye checks.
- ⦿ During the early stages of DR, no treatment is needed unless diabetic macular oedema occurs.
- ⦿ Laser treatment (photocoagulation) is the main form of treatment when DR progresses.
- ⦿ If a person has already lost sight from DR, laser treatment will only help to maintain the sight that is left—it cannot restore lost sight.
- ⦿ More complicated cases may need eye surgery (vitrectomy).
- ⦿ Injection of medication into the eye (intravitreal injection of anti-VEGF medication) is a relatively new treatment option for some cases.



Source: Lions Outback Vision

For more info: [Diabetes eye health: a guide for health care professionals](#) (International Diabetes Federation and The Fred Hollows Foundation, 2015)



MBS item 12325 is now available for yearly retinal examinations

- ⦿ Since 1 November 2016, primary health care services have had access to an Aboriginal and Torres Strait Islander specific [MBS item \(12325\)](#) to support screening for DR using a retinal camera.
- ⦿ The [Integrated Team Care \(ITC\) Program](#) helps Aboriginal and Torres Strait Islander people access culturally appropriate primary health care and provides care coordination services to people who need multidisciplinary care for chronic disease, including DR.
- ⦿ Outreach optometry and ophthalmology services are delivered to people living in regional, rural and remote areas through the [Visiting Optometrists Scheme \(VOS\)](#) and the [Rural Health Outreach Fund \(RHOF\)](#).

- ⦿ Fully equipped vans—like the [Lions Outback Vision Van](#) in Western Australia and the [IDEAS Van](#) in Queensland—give rural and remote Australians access to specialist eye care. The vans are a mobile treatment centre offering comprehensive optometry and ophthalmology care, including the treatment of DR.

Delivering eye care for diabetic retinopathy

Primary health care can support patients to manage their diabetes and access care for their eyes by:

- ⦿ incorporating yearly eye checks into patient management plans
- ⦿ establishing a patient recall system to identify and remind all diabetes patients about their yearly eye checks
- ⦿ conducting [eye checks](#) (or referring patients to an eye specialist to have one)
- ⦿ referring patients with DR or vision impairment to an eye specialist for further assessment and management
- ⦿ supporting patients after referral to: make appointments, complete treatment, and attend appointments for follow-up and review
- ⦿ providing information about referral pathways to help people with DR get specialist care when they need it.



Source: The Fred Hollows Foundation

More information about eye care for diabetic retinopathy

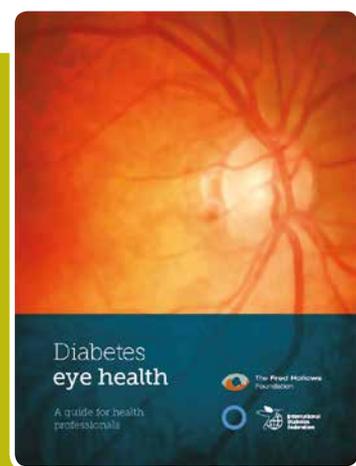
Health practice resources

[Check Today, See Tomorrow](#) [resource kit] (Indigenous Eye Health Unit, 2015):

- ◉ [Diabetes eye care flipchart](#)
- ◉ [Messages and adult eye check](#)
- ◉ [Diabetic retinopathy screening card](#)

[Diabetes eye health: a guide for health care professionals](#) [report] (International Diabetes Federation and The Fred Hollows Foundation, 2015)

[Guidelines for the management of diabetic retinopathy](#) [report] (National Health and Medical Research Council, 2008)



Source: The Fred Hollows Foundation



Source: Indigenous Eye Health

Training resources

[Diabetic retinopathy grading](#) [online course] (Indigenous Eye Health Unit and Centre for Eye Research Australia, updated 2016)

[Eye health and diabetes](#) [online module] (Remote Area Health Corps)

[Primary eye care checks](#) [online module] (Remote Area Health Corps)

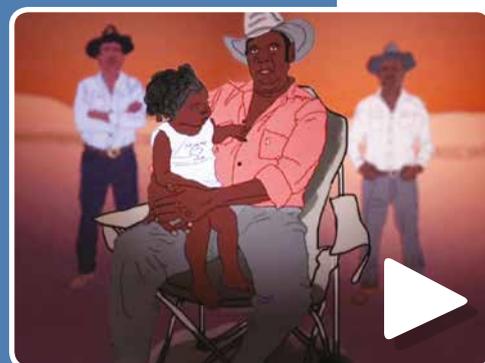
Health promotion resources

[Aunty Mary's story](#) [video] (Guide Dogs NSW/ACT, Hooker M, 2013)

[Bad sugars, bad eyes](#) [video] (Lions Outback Vision, 2012)

[Check Today, See Tomorrow](#) [resource kit] (Indigenous Eye Health Unit, 2015):

- ◉ [Diabetes eye care brochure](#)
- ◉ [Urban, rural and remote posters](#)
- ◉ [Multimedia resources](#)



Source: Lions Outback Vision

These key facts are available online at: www.healthinonet.ecu.edu.au/other-health-conditions/eyeworkers/diabetic-retinopathy/key-facts

The Eye Health web resource

- ◉ These key facts have been developed by the Australian Indigenous HealthInfoNet and The Fred Hollows Foundation and are available on the HealthInfoNet's Eye Health web resource: www.eyehealth.org.au.
- ◉ The Eye Health web resource provides health professionals with the latest information and research to inform their everyday practice. It includes an extensive collection of information and resources about the eye health of Aboriginal and Torres Strait Islander people, a [workforce portal](#) (a selection of plain language information for health care providers) and a [yarning place](#) (an online network to help people connect).
- ◉ The health workforce is encouraged to contribute to the development of the Eye Health web resource by sharing knowledge and experience and suggesting new materials for inclusion: www.healthinonet.ecu.edu.au/contact/share_info.

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Website: www.eyehealth.org.au