

Diabetic Retinal Screening, Grading, Monitoring and Referral Guidance: Information for primary care teams

The Ministry of Health has developed new guidelines for diabetic retinal screening.

Key points

- The screening interval may be extended from two- to three-yearly for those:
 - without any diabetic retinopathy (DR) detected
 - with no clinical risk factors
 - whose HbA1c has consistently been less than or equal to 64 mmol/mol.
- Good control and a stronger focus on self-management is essential if DR occurs or progresses.
- General practice is recognised as the health care home for people with diabetes, which includes accessing electronic information and ensuring enrolment with the diabetic retinal screening programme. This is especially important when a person with diabetes shifts to a different district health board area.
- Monitoring by optometrists for certain categories of retinopathy.

When to start diabetic retinal screening

- People with newly diagnosed type 1 diabetes should be enrolled in the DR screening programme with screening to start five years after diagnosis.
- For children with type 1 diabetes, screening can be delayed until age 10 or until five years after diagnosis, whichever occurs first.
- People with newly diagnosed type 2 diabetes should be enrolled in the diabetic retinal screening programme at the time of diagnosis of their diabetes, as DR is often present then.
- People with secondary diabetes, such as new onset diabetes after transplant (NODAT), postpancreatectomy, chronic pancreatitis and cystic-fibrosis-related diabetes should be treated as per type 1 diabetes when there is a defined date of onset.

- People with uncertain types of diabetes or without a definite date of onset should be treated as if they had type 2 diabetes with immediate screening.

Pregnancy

- All pregnant women with established diabetes (type 1 or type 2) should be screened in the first trimester of their pregnancy.
- Pregnant women, previously not known to have diabetes but found to have an HbA1c of 50 mmol/mol or greater at the time of booking their antenatal blood tests are likely to have had diabetes at conception. These women should also be screened in the first trimester of pregnancy or within four weeks of detection of their diabetes.
- Those who have no DR and no modifiable risk factors can continue with their normal two- or three-yearly screening.
- Women with gestational diabetes do not need to be screened.

Risks for diabetic retinopathy

The risk of developing, and the rate of progression of, DR increases with:

- poor blood glucose control over time (HbA1c > 64 mmol/mol)
- duration of diabetes
- poor engagement with the health system
- rapid and marked improvement in blood glucose control (over a period of three to four months)
- uncontrolled hypertension
- renal impairment
- non-healing foot ulcers.

Good management of the modifiable risk factors, such as glycaemic control and blood pressure control, reduces the risk of DR occurrence and progression.

Retinal screening pathway

