

# Diabetic Eye Screening

Information for health professionals



Northern Ireland

**Diabetic Eye  
Screening**

Programme

Everyone aged 12 years and over with diabetes should receive regular eye screening as one of their essential free health checks and services.

The Northern Ireland Diabetic Eye Screening Programme (DESP) aims to reduce the risk of sight loss by the early detection and treatment of diabetic retinopathy and maculopathy. Research has shown that screening could prevent sight loss in more than 15 people with diabetes in Northern Ireland each year.

## Structure and delivery

The DESP is coordinated and led by the Public Health Agency (PHA) in collaboration with Belfast Health and Social Care Trust. Screening is delivered locally in line with national quality standards and protocols.

All diabetes patients aged 12 years and over are eligible for screening. The only exception is people who have no light perception in either eye. To be invited, patients need to be on the primary care diabetes register. This includes those aged 12-18 years.

Patient data are extracted, with agreement, from GP systems on an annual basis. The DESP office should be notified of all new diabetes patients as soon as possible after diagnosis.

Screening results letters are sent to patients and their GPs.

There are around 83,000 people in Northern Ireland who have diabetes and are eligible for screening, as they are at risk of sight loss caused by diabetic retinopathy.



## Risk factors

Everyone with type 1 or type 2 diabetes is at risk, whether their diabetes is controlled by diet, tablets or insulin. Risk is increased by:

- the length of time a person has had diabetes
- poor control of blood sugar
- high blood pressure.

## Life-long screening

Once a person has been diagnosed with diabetes (excluding gestational diabetes), they should be screened for diabetic retinopathy annually for life.

Patients with a previous diagnosis of diabetes but whose glucose tolerance has reverted to normal (coded as 'diabetes resolved') should continue to be offered annual screening.

## Screening during pregnancy

Pregnant women with type 1 or type 2 diabetes are offered eye screening at, or soon after, their first antenatal clinic visit (unless they have already been screened within the previous three months) and at 26 weeks of pregnancy. This is because diabetic retinopathy can progress during pregnancy. If any retinopathy is present at booking, more intense surveillance is needed during pregnancy (usually outside the screening programme).

Pregnant women who develop gestational diabetes are not routinely offered diabetic eye screening.



# The RxMx grading system

Photographs of patients' retinas taken at screening are graded according to RxMx system definitions (see table below).

Expert staff in the screening service determine the final grade and outcome for the patient. The patient is then either:

- returned to annual screening;
- referred to a surveillance clinic for more frequent monitoring;
- referred to hospital eye services for more tests and possible treatment.

## RxMx grades

<b>R0</b>	<b>No retinopathy</b>
<b>R1</b>	<b>Background retinopathy</b>
<b>R2</b>	<b>Pre-proliferative retinopathy</b>
<b>R3A</b>	<b>Active proliferative retinopathy</b>
<b>R3S</b>	<b>Stable proliferative retinopathy</b>
<b>M0</b>	<b>No maculopathy</b>
<b>M1</b>	<b>Maculopathy</b>

<b>Screening outcome</b>		<b>Role of primary care</b>
<b>No retinopathy or maculopathy</b>		
<b>Possible result:</b> R0M0	<b>Follow-up:</b> Invited for routine annual screening in 12 months' time.	Continue to advise and support the patient on good management of their diabetes.
<b>Background retinopathy</b>		
<b>Possible result:</b> R1M0	<b>Follow-up:</b> Invited for routine annual screening in 12 months' time.	Encourage the patient to attend routine diabetes check-ups and follow advice on good management of their diabetes.
<b>Referral to surveillance clinic</b>		
<b>Possible result:</b> R2 M1 R3S	<b>Follow-up:</b> Screened in surveillance clinic every 3, 6 or 12 months depending on progression of disease.	Reinforce advice to patients on good management of all aspects of their diabetic care.  Encourage the patient to attend routine diabetes check-ups.
<b>Referral to hospital eye services</b>		
<b>Possible result:</b> R3A R2 M1	<b>Follow-up:</b> Referred to hospital for diagnosis, possible follow-up tests and treatment.  Patients are suspended from screening while under the care of hospital eye services for diabetic eye disease. They are returned to routine screening or surveillance after discharge.	Monitor and refer patients as diabetic control indicates.

## Further information for patients

- Everyone aged 12 years and over with diabetes receives a copy of the leaflet *Diabetic eye screening: an introduction* with their first screening invitation.
- Anyone who is diagnosed with diabetic retinopathy will receive the leaflet *Diabetic eye screening: what you need to know* with their results letter.
- The phone number for the Northern Ireland DESP is on the leaflets and screening invitation letters.
- Northern Ireland DESP website: **[www.publichealth.hscni.net/desp](http://www.publichealth.hscni.net/desp)**
- Diabetes UK website: **[www.diabetes.org.uk](http://www.diabetes.org.uk)**



## Further information for health professionals

[www.diabeticeye.screening.nhs.uk](http://www.diabeticeye.screening.nhs.uk)

GP Notebook – online medical information available at:

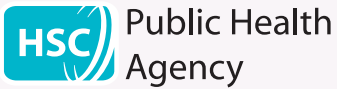
[www.gpnotebook.co.uk](http://www.gpnotebook.co.uk)



## Contact details for the Northern Ireland DESP

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