

NHS Diabetic Eye Screening Programme



Information for Health Professionals

All people with diabetes aged 12 and over should receive regular eye screening as one of their essential free NHS checks and services.

The NHS Diabetic Eye Screening Programme aims to reduce the risk of sight loss by the early detection and treatment, if needed, of diabetic retinopathy and maculopathy. Research has shown that screening could prevent sight loss in more than 400 people with diabetes per year.

The screening process

Screening is offered every year to people with diabetes (type 1 and type 2) aged 12 and over

Each person should receive at least one invitation and one reminder to attend



Visual acuity test



Mydriatic agent applied to dilate the pupils



Digital photographs taken of both retinas



Images graded for signs of diabetic retinopathy and diabetic maculopathy using the RxMx grading system



Screening results sent to the patient and their GP within six weeks

Structure and delivery

The NHS Diabetic Eye Screening Programme is coordinated and led nationally as part of Public Health England. Screening is delivered locally by a variety of NHS and private providers in line with national quality standards and protocols.

All patients on the GP diabetic register aged 12 and over should be enrolled in their local diabetic eye screening programme. The local service organises the call and recall process, screening and surveillance clinics, results letters and hospital referrals.

Screening result letters are sent to the patients and their GPs.

Prevalence

- around 4,200 people are at risk of blindness caused by diabetic retinopathy in England every year
- around 1,280 new cases of blindness are caused by diabetic retinopathy in England every year

Risk factors

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

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

'Diabetes resolved' patients

Once there is or has been a definite diagnosis of diabetes, excluding gestational diabetes, patients should be screened for diabetic retinopathy annually for life.

Patients with a read code of 'Diabetes resolved' should therefore continue to be offered screening.

Screening during pregnancy

Pregnant women with type 1 or type 2 diabetes are offered additional tests for diabetic retinopathy at, or soon after, their first antenatal clinic visit and also after 28 weeks of pregnancy. This is because there are risks to both mother and baby associated with diabetic retinopathy.

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

The RxMx grading system

- R0 = No retinopathy**
- R1 = Background retinopathy**
- R2 = Pre-proliferative retinopathy**
- R3A = Active proliferative retinopathy**
- R3S = Stable proliferative retinopathy**
- M0 = No maculopathy**
- M1 = Maculopathy**

Photographs of the patients' retinas taken at screening are graded according to national protocol using the RxMx grading system definitions (left).

A lead clinician in each local screening service determines the final grade and outcome for the patient. The patient is then either returned to annual screening, referred to a digital surveillance clinic for more frequent monitoring or referred to hospital eye services for more tests and possible treatment.

Screening outcome

Role of primary care

No retinopathy or maculopathy

Possible result: R0M0	Follow-up: Reinvited for routine annual screening in 12 months' time
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Continue to advise patient on good management of diabetes, including blood glucose, blood pressure and lipid levels.

Background retinopathy

Possible result: R1M0	Follow-up: Reinvited for routine annual screening in 12 months' time
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Ensure patient attends routine diabetes checks at GP practice.

Referral to digital surveillance clinic

Possible results: R2 M1 R3S	Follow-up: Screened in surveillance clinic every 3, 6 or 12 months depending on progression of disease.
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Provide additional advice on good management of diabetes, including blood glucose, blood pressure and lipid levels.

Referral to hospital eye services

Possible results: R3A R2 M1	Follow-up: Referred by the local programme to hospital for diagnosis, possible follow-up tests and treatment. Patients are suspended from screening by the local programme while under the care of hospital eye services for diabetic eye disease. They are returned to routine screening or surveillance after discharge.
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Ensure patient attends routine diabetes checks.

Invite for additional checks if diabetic control indicates.

Refer to diabetologist if indicated.

Further information for patients

- **national leaflets** – all people with diabetes aged 12 and over receive a copy of the leaflet, *Your guide to diabetic eye screening*, with their screening invitation
- **local diabetic eye screening programme** – the phone number for the local screening programme is on the screening invitation letters
- **NHS Diabetic Eye Screening Programme** www.nhs.uk/diabeticeye
- **Diabetes UK** – www.diabetes.org.uk

Further information for health professionals

- **NHS Diabetic Eye Screening Programme** diabeticeye.screening.nhs.uk
- speak to your **local diabetic eye screening programme manager**
- **Map of Medicine** – the care pathway for the NHS Diabetic Eye Screening Programme is published on Map of Medicine. See healthguides.mapofmedicine.com
- **GP Notebook** – online medical information available at www.gpnotebook.co.uk