

Would you

recognise it?



What is retinoblastoma (Rb)?

Around 50 children a year in the UK are diagnosed with retinoblastoma, a rare form of eye cancer that typically affects babies and children under the age of six. Although 98% survive, almost half of children diagnosed will lose an eye as part of their treatment, and most will suffer some degree of vision loss.

Opticians' referral protocol for suspected retinoblastoma

It is essential to ensure **all practice staff**, including receptionists and dispensing opticians, are aware of the most common signs of retinoblastoma (a white or abnormal pupil reflex in a photo or a new onset squint) and the need for urgent assessment by a GP / optometrist.

If a parent attends or contacts the practice with a child and reports noticing a white 'glow' in the pupil of an eye, or a pale pupil reflex in a photo:

- Parent must be told that the child must be examined urgently by an optometrist, ophthalmologist or GP to rule out a serious eye condition.
- If your practice does not examine babies and small children, ensure the parents understand that urgent arrangements must be made for the child to be examined elsewhere (another optometrist or ophthalmologist who does examine young children, or their GP).

The main signs of retinoblastoma are:

- A white reflex in the pupil ("leukocoria") or an abnormal pupil reflex in flash photos
- A recent onset squint
- A change in the colour of the iris
- A deterioration in vision

Rarely retinoblastoma may present as a red, sore or swollen eye without other signs of infection such as discharge.

Any of these in isolation can indicate retinoblastoma.

If a parent continues to have concerns about their child's eye, the child should be taken back to the GP / optometrist.



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Importance of the fundal (red) reflex test in the diagnosis of cancer

The photographs below depict the asymmetry or absence of fundal (red) reflex that can occur in several serious eye conditions, including Rb. Fundal reflex examination is essential at post-natal, 6-week and routine development examinations, and at any consultation where a parent is anxious about their child's eyes, vision and/or eye appearance.

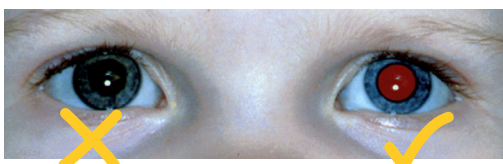
It is vital to note a child with Rb may appear well, apart from one or more of the signs noted below. Signs of Rb can be very subtle and difficult to describe.

Technique

In a darkened room sit in front of the child and parent at arm's length; use a light ophthalmoscope set close to zero focused on the parent's eyes. This shows the test is non-invasive and offers recognition of the normal fundal reflexes in that particular ethnic group. Then examine the child. The corneal reflex can be checked at the same time.



Normal fundal reflex and corneal reflex - The colour and brightness of the fundal reflex, and the location of the small white corneal reflex, is identical in each eye.



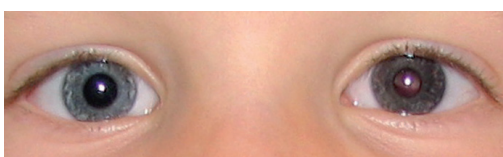
Fundal reflex absent - An absent fundal reflex in one or both eyes demonstrates serious eye disease (such as cataract or Rb) requiring urgent referral.



Fundal reflex is abnormal - A fundal reflex that is the wrong colour or brightness in one or both eyes suggests serious eye disease (such as cataract or Rb) requiring urgent referral. In some ethnic groups the healthy reflex may be orange or even pale, so where possible check against the parent as above.



Fundal reflex with a squint - A squint is a common indicator of Rb. Always do a fundal reflex test on a child presenting with a squint in order to rule out serious eye disease. An abnormal fundal reflex with squint requires urgent referral.



Other signs of Rb - A change in colour to the iris can occur. This may be in one iris or one part of the iris. One or both eyes can become, red, sore or swollen without any infection. A child may have deterioration in their vision or they may have had poor vision from birth.

A fundal ('red') reflex test should be done for any of the symptoms above.

What to do next: If a child presents with any of the symptoms above or has a family history of Rb, and you are unable to confidently rule out eye cancer with a fundal reflex test, an urgent referral should be made to the local ophthalmology department.

NICE guidelines state you should: Consider urgent referral (for an appointment within two weeks) for ophthalmological assessment for Rb in children with an absent fundal reflex test. We recommend you call through to alert them to this case and to find out the speed with which their urgent referrals are seen (in some cases it can be longer than two weeks).

What Childhood Eye Cancer Trust (CHECT) do:

We are the only charity in the UK solely dedicated to helping anybody affected by retinoblastoma (Rb).

At the heart of what we do is our belief that by driving early diagnosis through raising awareness, funding vital research, and offering lifelong support to those affected, we can lessen the impact of Rb, now and in the future. Find out more at www.chect.org.uk.

What optometrists can do:

- Share the opticians' referral protocol with your team
- Display signs and symptoms leaflets - order for free at www.chect.org.uk/shop
- Share our awareness posts on social media

How you can get involved:

Your support means the world to us! Encouraging your employees and community to take part in fundraising events, challenge events, volunteer opportunities and awareness campaigns makes a truly meaningful difference. For more information, please reach out to us at fundraising@chect.org.uk – thank you so much!

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