

# RETINOPATHY OF PREMATURITY EXAMINATION AND DIAGNOSIS

**Information for  
parents and carers**



**Oxford Newborn Care Unit**



# What is retinopathy of prematurity (ROP)?

You have been given this leaflet because your baby was born at less than 32 weeks or because they weighed less than 1,500g (3lbs 5oz) at birth.

Babies who are born early or are small at birth are at risk of developing an eye condition called retinopathy of prematurity (ROP). When these babies are born, the blood vessel supply to the back of their eye (the retina) will not have fully developed. As a result, in the first few weeks after birth their eye may grow new, disorganised blood vessels. This can lead to problems with the baby's eyesight.

All babies at risk of developing ROP have their eyes examined regularly, to make sure ROP can be identified early and they can receive prompt treatment.

## When is the eye examination carried out?

If your baby was born at less than 27 weeks, they will have their first eye examination when they reach 30-31 weeks gestational age.

If your baby was born at 27 weeks or more, they will have their first eye examination 4 to 5 weeks after birth.

After their first eye examination, your baby will be examined again every 1 to 2 weeks until they reach around 37 weeks gestational age.

# How is the eye examination carried out?

Shortly before the eye examination, your baby will be given dilating eye drops to make their pupils bigger and anaesthetic eye drops for pain relief.

An eye doctor (ophthalmologist) will examine your baby's eyes and may take photographs, to compare changes from week to week.

During the examination, the ophthalmologist will use a piece of equipment called an ophthalmoscope (which they wear on their head). This allows them to look closely at your baby's eye.

Your baby's eyelids will be held open with an instrument called a speculum. An indenter (small probe) will be used to help position their eye, to make sure their retina can be clearly seen.

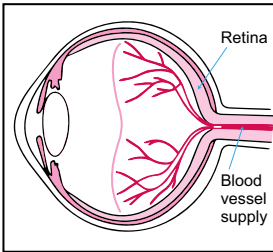
Babies can find the eye examination unpleasant, but the clinical team will try to keep your baby as comfortable as possible during the procedure.

After the procedure your baby's eyes may be red and puffy, but this should improve within a few hours. You may also notice that your baby is more unsettled that day. If you have any concerns, please speak to the nurse or doctor looking after your baby.

# Stages of retinopathy of prematurity

The doctors who are looking after your baby will explain to you whether your baby has developed ROP, and what stage it is at.

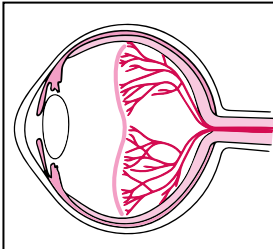
Stage 1



There are signs that the blood vessel supply to the retina has not fully developed.

Babies with Stage 1 ROP usually do not require treatment and develop normal vision.

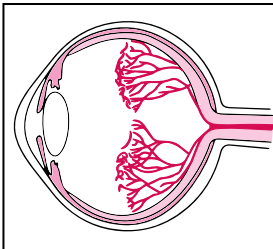
Stage 2



There are early signs of new disorganised blood vessel growth.

Babies with Stage 2 ROP usually do not require treatment and develop normal vision.

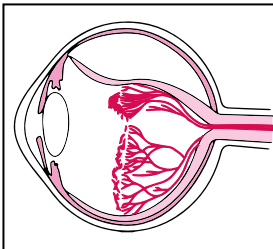
Stage 3



There are definite new disorganised blood vessels.

Some babies with Stage 3 ROP do not require treatment and develop normal vision. Some babies with Stage 3 ROP do require treatment and their visual development may be affected.

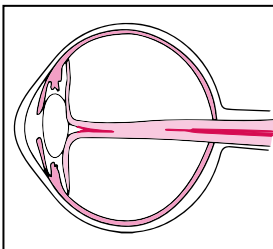
Stage 4



There are signs that the blood vessels have begun to pull the retina away from the wall of the eye (known as a retinal detachment).

Visual development is likely to be affected in babies with Stage 4 ROP and they will require treatment.

Stage 5



The retina has become fully detached.

Visual development will be affected and the baby will require treatment.

## How is ROP treated?

Stages 1 and 2 are common and the ROP usually recovers on its own. Treatment is usually needed for Stages 3, 4 and 5.

The most common treatment is laser therapy, which targets the areas of the retina where the blood supply has not fully developed. This stops new disorganised blood vessels from growing and causes them to shrink away.

Other treatments that may be needed include:

- eye injections, to stop the new blood vessels from growing and bleeding
- eye surgery, to stop the retina from detaching further
- eye surgery, to re-attach a detached retina.

If your baby needs treatment, the doctors will explain which treatment is needed and how it will benefit your baby.

## What if my baby is allowed home or transferred to another hospital?

ROP examinations are usually completed while your baby is in hospital. However, when your baby is discharged from hospital they may continue to have eye examinations in an outpatient clinic.

If your baby is transferred back to your local hospital, the medical team will note when the next ROP examination is due to take place in the discharge letter. Your baby will be followed up at a service nearer to you.

# USEFUL INFORMATION

## **BLISS**

Website: **[www.bliss.org.uk](http://www.bliss.org.uk)**

This is a national charity that supports premature and sick newborn infants and their parents.

Their website is a good source for information for both during and after your baby's stay on the Newborn Care Unit.

Helpline: **0808 801 0322** (Freephone)



If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.



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