

Screening for Retinopathy of Prematurity (ROP)

For parents of all babies less than 32 weeks' gestational age or birthweight under 1500 grams.



What is Retinopathy of Prematurity?

The retina is the delicate tissue lining the back of the inside of the eye which detects light and allows us to see. Retinopathy of Prematurity (ROP) is an eye condition which affects the blood vessels of the retina.

This diagram illustrates how ROP develops, usually progressing over time from normal to Stage 1 through Stage 2 to Stage 3. Mild ROP of stages 1 and 2 are very common and can settle on their own. Only a small proportion of babies develop Plus disease and Stage 3 which is more serious.

The white oval in the centre is the optic nerve and the dark area towards the right of it is known as the macula. The macula is the part of the eye that allows us to see fine detail. The grey lines are the arteries and the black lines are the veins.





What is ROP screening?

ROP Screening is the eye examination by an Ophthalmologist (or eye specialist) to look for any signs of ROP. All babies weighing less than 1500 grams at birth or born at less than 32 weeks gestation will need at least one eye examination.

How common is ROP?

ROP is common in premature babies affecting about 65% of babies less than 1251grams birth weight. The condition is usually very mild and settles on its own without treatment. In a few babies, the ROP does not get better and treatment is needed. If not treated severe ROP can seriously affect a baby's sight and even cause blindness.

Why does ROP occur?

Being born early is thought to be the most common cause of ROP, as the retinal blood vessels are not fully developed. However other contributing factors include the amount of oxygen your baby has received and the baby's overall general condition (infection/anaemia/nutrition)

When will the screening be done?

The first screening examination will be done when your baby is between 4 and 6 weeks old. Some babies will only need one examination although most babies need at least two.

How is the screening carried out?

One hour prior to the examination, eye drops will be put into your baby's eyes (to dilate the pupil allowing the Doctor to see the back of the eyes). Paracetamol will be given to your baby as it is recognised as an uncomfortable procedure.

Your baby will be wrapped and supported throughout the examination by yourself or a Nurse. Your baby will be offered a pacifier (with your permission). Paracetamol will be given to your baby as it is recognised as an uncomfortable procedure.

Anaesthetic eye drops will be used by the Doctor.

The Ophthalmologist, wearing a special piece of equipment on his head (ophthalmoscope) will examine your baby's eyes with the aid of a speculum (to hold the eyes open) and an indentor (to gently rotate the eye to achieve a better view)

What happens if ROP is found?

This depends on how serious it is.

If ROP is mild, your baby will probably have a follow up examination in 1 - 2 weeks. If the follow up examination shows it has not become worse, the ROP will settle on its own.

More severe ROP will require an earlier re-examination, usually in a week.

In a very few cases the ROP may be severe enough to require treatment. If your baby requires treatment at any stage the Ophthalmologist will talk to you to explain exactly what will happen.

Will screening finish before my baby goes home?

Your baby will be discharged as soon as they are well enough to go home. This might be before the last eye screening. If this is the case, staff will arrange an outpatient appointment before you take your baby home.

More information

The Dyson Centre For Neonatal Care, Princess Ann Wing, Royal United Hospital, BATH, BA1 3NG. Tel. 01225 821850

This leaflet has been produced to accompany a guideline for the screening and treatment of ROP developed by the Royal College Of Paediatrics and Child Health, the British Association of Perinatal Medicine and the Royal College of Ophthalmologists

Other references include the BLISS website www.bliss.org.uk.

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