

Retinopathy of Prematurity

What is Retinopathy of Prematurity?

Retinopathy of Prematurity (ROP) is caused by an abnormal growth of blood vessels in the retina at the back of a premature baby's eye. About 30-60 % of babies less than 1500 grams develop retinopathy, of which only 5% are severe. The severe form is rare, but if it is not treated, it may progress to blindness.

How does it happen?

The retina lines the inner wall of the eye.

Babies who are born prematurely have blood vessels in the retina that are not fully formed. These blood vessels can grow abnormally into the vitreous (jelly) of the eye instead of along the wall of the retina and can cause problems with bleeding and/or scarring of the retina leading to retinal detachment and blindness.

Why do some babies get Retinopathy of Prematurity?

We don't fully understand why some babies develop ROP and others escape without any problems. The main risk factors are prematurity and the need for extra oxygen. It is the smallest and sickest babies who may have needed extra oxygen for a long time that are most likely to develop ROP.

How is it detected?

All babies born before 32 weeks gestation (up to 31+6) and or less than 1.5 kg (up to 1501kg) are checked by a specialist eye doctor (an Ophthalmologist) between 4-6 weeks of age. This involves putting some eye drops into a baby's eyes which makes it easier for the doctor to look into the back of the eye. The doctor uses a special torch called an 'indirect ophthalmoscope' to look at the baby's eyes. Premature babies are usually checked every 2 weeks until the doctor is happy that they have not developed any eye problems.

What does it mean if my baby has Retinopathy of Prematurity?

Many premature babies develop a mild form of ROP (called stage 1 or stage 2) which will need to be checked regularly. Treatment is not needed for these stages and it resolves without any problems.

Some babies have a more severe form of the condition called stage 3 ROP. These babies will need more frequent eye checks and sometimes need treatment to stop the growth of abnormal blood vessels. The Ophthalmologist will decide whether a baby has severe ROP and which babies require treatment.

It is very important for babies to attend regular check-ups by the Ophthalmologist. ROP can get worse quite quickly in some babies **and if an appointment is missed, the chance to prevent blindness may be lost.**

How is Retinopathy of Prematurity treated?

Severe ROP is treated using an injection of a drug or a 'laser', which is a special type of light. Using this laser treatment on the eye reduces the chances of any more abnormal blood vessels developing in the rest of the eye.

What will happen if a baby with severe Retinopathy of Prematurity is not treated?

Severe ROP can lead to blindness if it is not recognised and treated properly. This is why it is so important for all premature babies born before 32 weeks to be checked regularly.

Are there any long term effects of Retinopathy of Prematurity?

Premature babies (especially those with ROP) need to wear glasses in early childhood more often than babies who were not born prematurely. Some babies with ROP can develop a squint. Babies with severe forms of ROP may suffer some loss of vision, even with treatment.

What is likely to happen if your baby needs treatment?

Your baby will be sedated and the breathing supported with a ventilator during the procedure. The procedure itself usually takes one to two hours. Following the procedure your baby is likely to remain on the ventilator for 12 to 18 hours.

How long is your baby likely to stay in hospital if admitted for the treatment?

If your baby was admitted to Liverpool Women's Hospital (LWH) from another hospital for laser treatment, he or she is likely to stay for a maximum of 3 days in LWH.

Where can I find out more about Retinopathy of Prematurity?

The nurses and doctors looking after your baby will be able to tell you more about Retinopathy of Prematurity.

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