

# Eye Reviews

## Parent information

### Eye reviews are recommended for babies at risk of developing Retinopathy of Prematurity (ROP). Babies at risk are:

- Preterm babies born weighing less than 1250 grams and/or babies born before 31 weeks.
- Babies who have medical conditions which can be associated with eye problems. If your baby needs an eye test your doctor will discuss this with you.

### What is Retinopathy of Prematurity (ROP)?

Retinopathy of Prematurity (ROP) occurs when the blood vessels of the retina in the eye don't grow normally. The retina is the delicate, light sensitive part at the back of the eye which receives and transmits light messages to the brain so that we can see. In premature babies the growth of the blood vessels in the retina is interrupted by early birth which may lead to abnormal growth. The blood vessels can begin to swell and twist causing bleeding and sometimes pulling on the retina. If the retina is pulled enough, it can come away (detach) and this may cause blindness.

**Screening allows for early detection and helps prevent blindness.**

ROP is described in Stages and Zones, this tells us how badly (stage) and where (zone) in the retina the blood vessels are affected. The earlier and/or smaller a baby is born, the higher their risk of developing ROP.

### What is the risk that my baby may develop ROP?

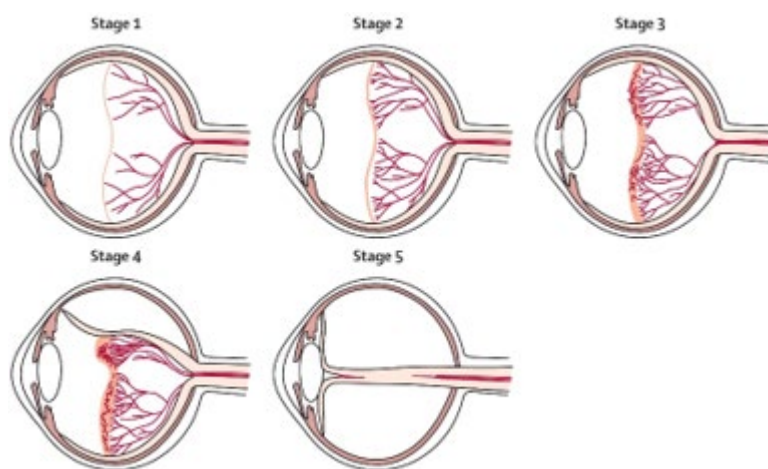
In babies born at less than 32 weeks gestation,

- 75% of babies had **NO** ROP
- 20.5% had stage 1 or 2 ROP
- 4% had stage 3 ROP
- 0.5% had stage 4 or 5 ROP

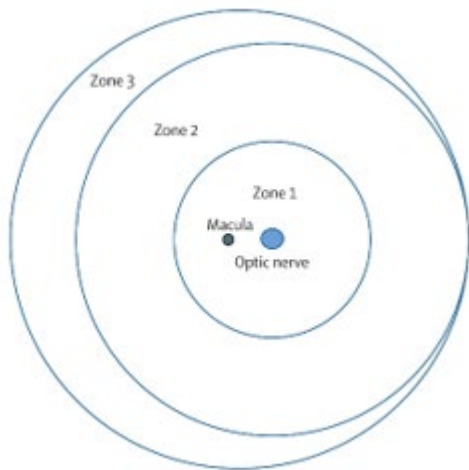
**While the risks are relatively low, early detection of ROP can lead to better treatment and decrease the likelihood of ROP progressing.**

### STAGES and ZONES

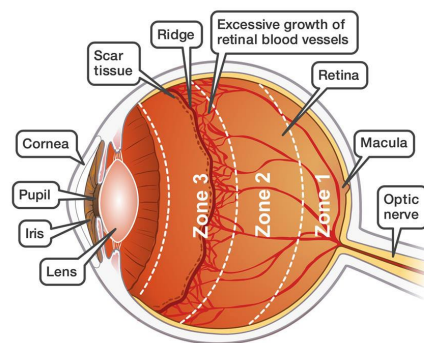
- Stage 1 and early Stage 2 is very common and most often this resolves with no effect on the baby's vision or need for treatment.
- Stage 2 and Stage 3 are less common. Early treatment for Stage 2 or 3, reduces long-term visual problems.
- Stage 4 and Stage 5 are very rare. This is when the retina partially or completely detaches. If the eye is not treated the baby can have severe visual impairment or blindness.



Consumers contributed  
to this information.



The ophthalmologist (eye doctor) divides the eye into **Zones** to describe where in the eye any retinopathy is occurring. Zone 1 is at the back of the eye around where the macula and optic nerve entry is located. Zone 2 is the middle section of the eye and Zone 3 is towards the front of the eye.



## When will my baby's eyes be reviewed?

- Preterm babies having eye reviews for ROP will have their first eye review at around one month of age. The eye examination is done in the nursery or at your home hospital if eye services are available there.
- Babies having an eye review for medical reasons will have their test done at the request of your baby's doctor, usually in the nursery prior to any transfer taking place.

## Parents can be present for the eye examination.

## How many eye reviews are required?

- This will depend on the individual baby and the reason for the eye review.
- For ROP reviews, babies are usually seen every 1-2 weeks until they are at least 37 weeks, however review can continue past 40 weeks.

## How is it done?

- The eye review takes place in your baby's cot or incubator.
- A nurse is always present to comfort and support your baby.
- The ophthalmologist (eye doctor) or eye review nurse uses a speculum (blunt clip) to hold the eye lids open and then a special camera called a RetCam is used to take pictures of the inside of the eye. Sometimes a lighted instrument called an ophthalmoscope is used and the ophthalmologist looks through a lens to see into the eye.
- 2 different eye drops are used during the procedure.
  - One for dilating the eyes - these are put into each eye 1 hour before the review, and
  - The second is a local anaesthetic to numb the eyes; these are put in just before the examination.
- Sucrose, a sugar solution given orally, is also used to provide pain relief and your baby will be swaddled to help them feel secure.
- The anaesthetic eye drops, and sucrose provide very good pain relief for the procedure; however, the bright light can be unsettling for the babies until the dilating drops effects wear off.
- After the procedure it is common that your baby's eyes may look slightly red and swollen, this settles very quickly.
- We will discuss the results with you straight away.

## What treatments are available?

- Very few babies require any treatment for ROP. However, if your baby does require treatment the ophthalmologist and neonatal medical team will discuss the options available with you. There are currently 2 treatment options: Laser therapy or injections.

## Any further questions?

- This fact sheet provides general information.
- If you have any questions about your baby's care, we encourage you speak to the nursing and medical staff.