

# Retinopathy of prematurity (ROP)

The Royal Women's Hospital Fact Sheet / [www.thewomens.org.au](http://www.thewomens.org.au)



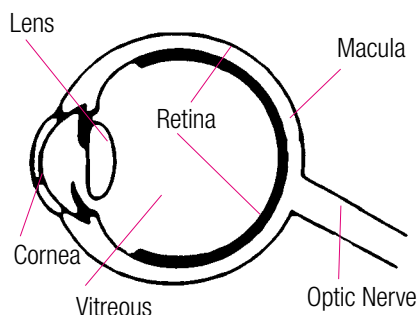
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Retinopathy of prematurity (ROP) is an eye problem that happens to some very premature babies. Most very premature babies do not develop any ROP and in babies who do develop ROP it is usually mild and goes away by itself, without causing any problems with vision.

## What is ROP?

ROP is a problem with the way the blood vessels develop on the surface of the retina in the weeks after birth. (The retina is the layer at the back of the eye that is like a film in a camera – see figure 1.) When a baby is born very prematurely, these blood vessels are immature like the rest of the baby. In most very premature babies, the retinal blood vessels grow properly, however in some, the blood vessels start to grow the wrong way. Instead of branching like a tree, the vessels link up side to side and in some cases grow away from the retina towards the centre of the eye. The severity of ROP is graded from stage one to stage five. Stage one is the mildest and stage five the most severe.

**Figure 1: Major parts of the eye**



## Why do premature babies get ROP?

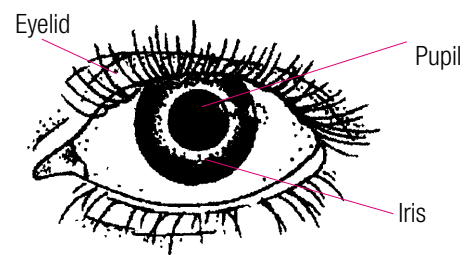
We do not understand why some babies develop ROP and others do not. Much research continues to be done to solve this mystery. Serious ROP is very rarely

seen in babies weighing more than 1,250 grams at birth. Many years ago ROP was more common and was linked to excessive use of oxygen. Now the supply of oxygen to premature babies is very closely monitored and the amount of oxygen given to your baby is very carefully calculated and controlled. As a result, ROP is less common but it still occurs. It is well known that the sicker and smaller a baby is the more likely it is that ROP will develop.

## How will I know if my baby is getting ROP?

We cannot predict which babies will develop ROP. All babies weighing less than 1250 grams at birth will have regular eye examinations after their gestational age reaches 30 to 31 weeks. These examinations are done by a medical eye specialist (ophthalmologist). The specialist will use eye drops to dilate the pupil (black circle in the middle of the coloured part at the front of the eye – see figure 2) which helps them to look at the back of a baby's eyes. The examination only takes a couple of minutes. Your baby may be minimally upset by these examinations and will settle very quickly once the eyes have been checked. After each examination a result sheet will be left to tell you if any ROP was found and if it was found how severe it was. This sheet will also indicate if the ROP is getting better or worse.

**Figure 2: Eye drops make the pupil larger so the retina can be examined**



## **If my baby has ROP, what happens?**

In most babies, ROP is mild and over a period of weeks the ROP gradually disappears.

The ophthalmologist will check your baby's eyes every one or two weeks and you will be told the result of each examination.

## **Can ROP be treated?**

Yes, but remember very few babies develop ROP that is bad enough to need treatment. At the Royal Women's and Royal Children's Hospitals only about 2% of babies checked for ROP actually need treatment. Mild ROP does not need treatment as it almost always goes away by itself. If your baby needs treatment, treatment options will be discussed with you. The treatment is generally done with laser and in 90% of babies needing treatment, the ROP disappears and sight is preserved.

If your baby needs treatment, more information will be given to you and you can discuss the situation with the paediatricians and ophthalmologist caring for your baby.

## **Who can I talk to about ROP?**

The nurse or doctor taking care of your baby are always the first people to ask. If they cannot answer your questions they will arrange a time for you to discuss your baby's eye problems with the ophthalmologist.

## **Will my baby need to have eye checks after leaving hospital?**

All babies who are small enough to have their eyes checked while in hospital will be offered an eye examination at one year of age. A small number of these children are found to have turned eyes

or need glasses for clearer vision, even if they did not have any ROP while in hospital. It is strongly recommended that you make sure your baby has an eye examination at about one year of age.

## **Remember**

Only some babies with birth weights less than 1250 grams develop ROP and in most of these babies the ROP is mild and goes away without treatment. Only a very few babies develop severe ROP and treatment is successful in most cases.

## **For more information**

### **Recommended website**

The Royal College of Ophthalmologists, UK - Retinopathy of Prematurity Information Booklet can be downloaded from <http://www.rcophth.ac.uk/docs/publications/paed-patient-information/ROPLEaflet.pdf>

### **Women's Health Information Centre**

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