

# Understanding Retinopathy of Prematurity



## What is retinopathy of prematurity?

The back part of the eye is called the **retina**. It receives light and sends visual signals to the brain. The blood vessels in the retina help feed the eye with oxygen.

The eye develops rapidly during the last 12 weeks of pregnancy. A premature baby may have eyes that are not fully developed and are therefore at risk of retinopathy of prematurity or ROP. Babies with ROP have blood vessels that do not grow normally. Routine screening tests will detect this and help prevent damage.

**About half of all premature babies who weigh 9600grams or less at birth may have ROP.**

## How is ROP diagnosed?

Premature and low-birth-weight babies are routinely screened for ROP. The first exam is usually 2 to 6 weeks after birth depending on age at birth.

- Some babies have the ROP exam before they leave the hospital
- Most premature babies have their ROP examinations before they leave the hospital. Follow-up with an eye doctor (**ophthalmologist**) is usually recommended

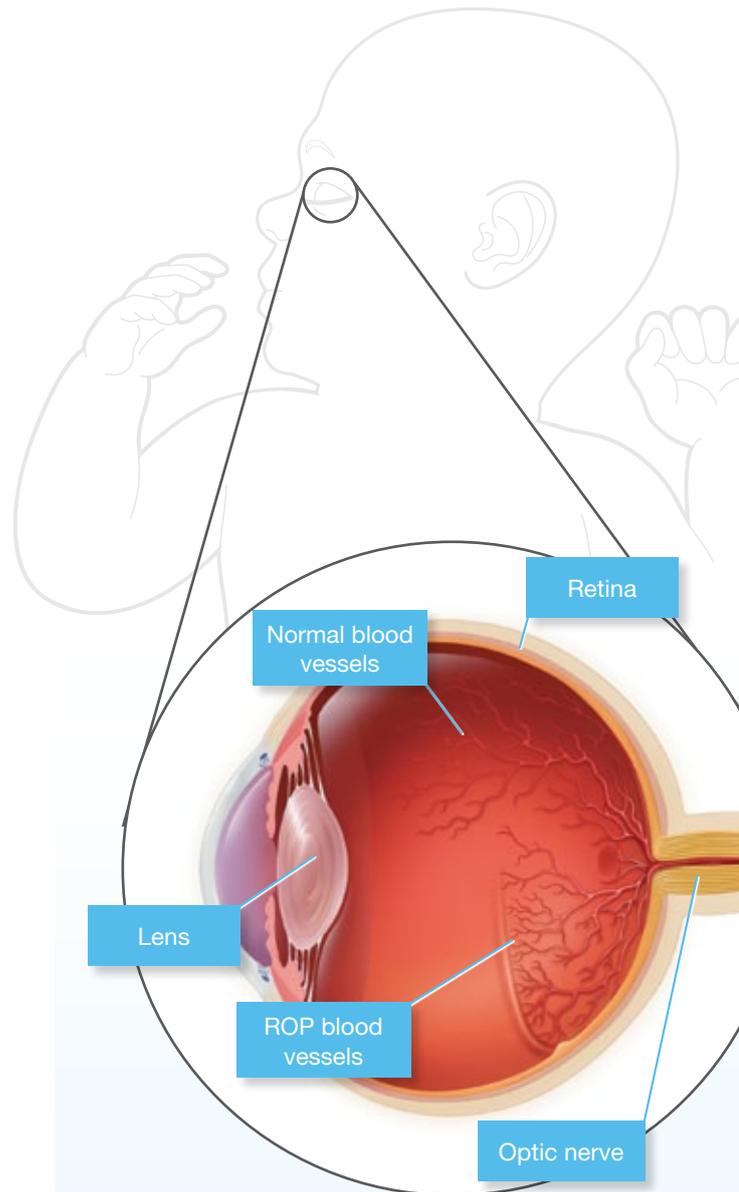
## Does ROP cause permanent damage to the eye?

Most cases of ROP do not cause vision loss. In some cases, abnormal tissue develops. This can lead to scarring. Scarring can pull the retina out of place (detached retina). This may cause vision loss.

## What happens during an eye examination?

Before the examination, a nurse will use eye drops to dilate the baby's eyes. Then the ophthalmologist will use a special head lamp to look at the baby's eyes. The examination is brief and most babies are not bothered by it.

**It is very important to keep your baby's appointments with the eye doctor. This may prevent blindness.**



## Eye Function

*The retina is a light-sensing tissue at the back of the eye. When the retina receives light, it sends visual signals to the brain. Abnormal blood vessel growth in ROP can affect vision.*

# Treating Retinopathy of Prematurity

## How serious is my baby's ROP?

Doctors divide ROP into five stages. ROP ranges from mild (stage 1) to severe (stage 5). Most babies with ROP have stage 1 or stage 2.

**STAGE 1** – mildly abnormal vessel growth

**STAGE 2** – moderately abnormal blood vessel growth

**STAGE 3** – severely abnormal blood vessel growth

**STAGE 4** – severely abnormal blood vessel growth that has caused part of the retina to pull out of place (detached retina)

**STAGE 5** – severely abnormal blood vessel growth that has caused the entire retina to pull out of place (detached retina)

## What treatment will my baby receive?

In most cases, ROP is at stage 1 or 2 and it resolves on its own. This means the blood vessels in the retina go back to normal and no vision loss occurs.

For severe cases of ROP, treatment may include:

- Laser therapy – treating the outer retina to stop the growth of abnormal blood vessels. Laser therapy helps prevent the retina from becoming detached. It also helps preserve as much vision as possible.

With stage 4 or 5 ROP, surgery is needed to repair the detached retina.

## What will happen next?

Mild cases of ROP often go away on their own. When treatment is needed, most babies respond well. All premature babies are at higher risk for other visual problems. They need regular eye exams in infancy and as they get older.

**Remember, follow-up examinations after you leave the hospital are important. These follow-up examinations may prevent blindness.**

## Glossary

### **Detached retina**

*when the retina pulls away from the back of the eye*

### **Laser therapy**

*treating the outer retina to stop the growth of abnormal blood vessels*

### **Ophthalmologist**

*a doctor who specialises in the medical and surgical care of eyes*

### **Optic nerve**

*sends visual information from the retina to the brain*

### **Retinopathy**

*abnormal growth of blood vessels in the back of the eye (retina)*

**Ask the healthcare team when you have questions – they are there to help.**

**IKARIA**<sup>®</sup>  
ADVANCING CRITICAL CARE

Ikaria Australia Pty Ltd.  
695 Burke Rd, Hawthorn East, VIC 3123

[www.ikariaaust.com](http://www.ikariaaust.com)