

UNDERSTANDING Retinopathy of Prematurity

ROP



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 eyes develop rapidly during the last 12 weeks of pregnancy. As a result, premature babies have eyes that are not fully developed. This may cause **retinopathy** of prematurity, or ROP. Retinopathy is abnormal growth of blood vessels in the back of the eye (retina).

About half of all premature babies who weigh 1250g or less at birth may have ROP.

Does ROP cause permanent damage to the eye?

Most cases of mild 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.

How is ROP diagnosed?

Premature and low-birth-weight babies are routinely screened for ROP. The first exam is usually 4 to 6 weeks after birth.

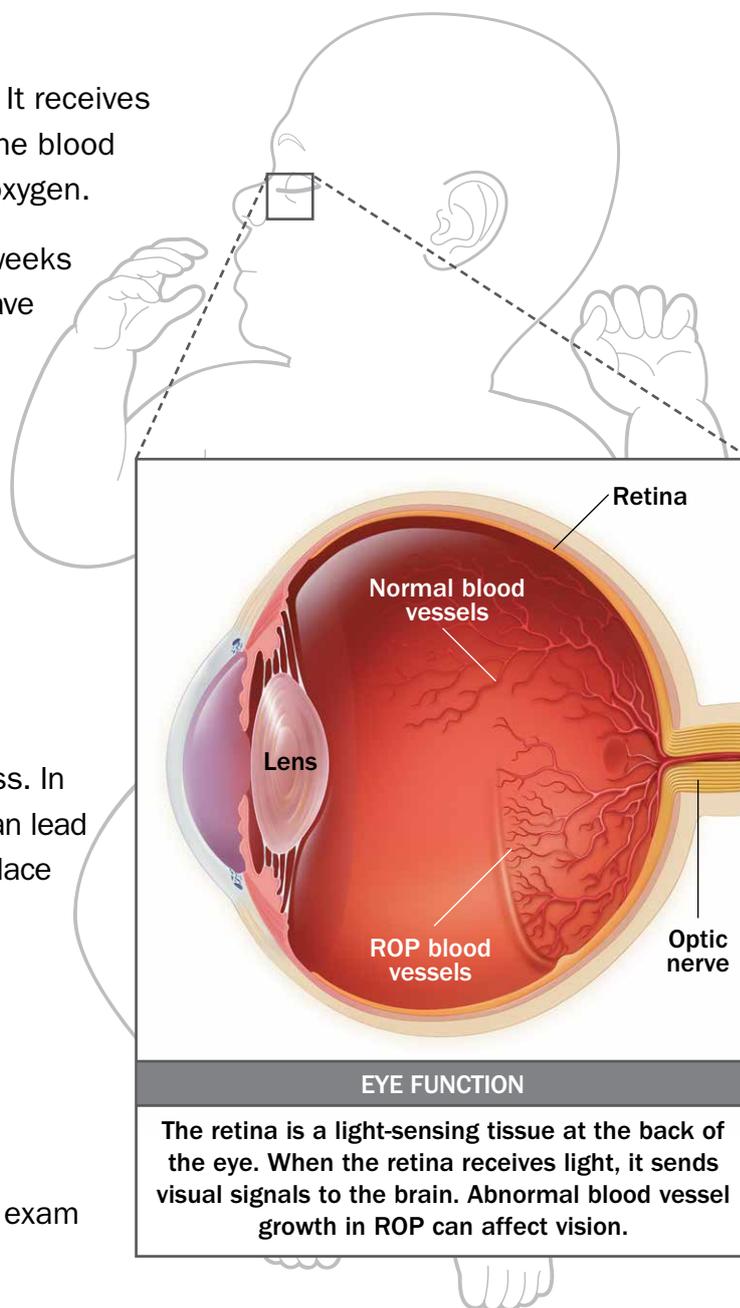
- Premature babies should have the ROP exam before they leave the hospital.
- Some premature babies go home before the retina is fully developed. These babies will continue to need exams for ROP until their eyes are fully developed.

Follow-up exams are critical.

What happens during an eye exam?

Before the exam, a nurse will use eye drops to dilate the baby's eyes. Then the eye doctor (**ophthalmologist**) will use a special head lamp to look at the baby's eyes. Although the exam may be uncomfortable, it is necessary.

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



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 blood 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?

Stage 1, stage 2, and some cases of stage 3 ROP usually resolve on their own. This means the blood vessels in the retina go back to normal and no vision loss occurs.

With stage 4, stage 5, and some cases of stage 3 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 exams after you leave the hospital are important. These follow-up exams 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

Retina – back part of the eye that receives light and sends visual signals to the brain

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

Ask the health care team when you have questions—they are there to help.

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Issued by: _____ Date: _____ Time: _____