

SAULT AREA HOSPITAL

PATIENT INFORMATION

Retinopathy of Prematurity (RoP)

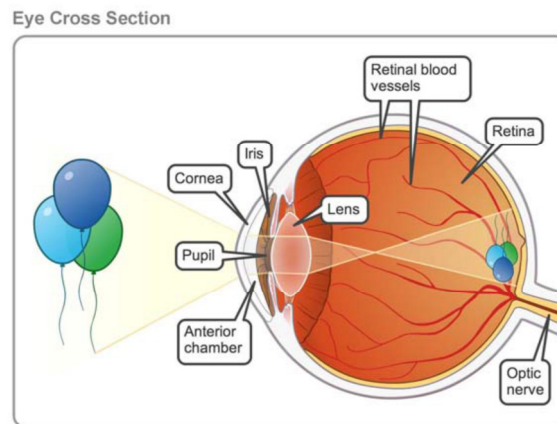
Dear Parents/Guardians/Visitors:

Your premature baby will require his/her eyes to be examined. This examination is important because premature babies are at risk of developing a condition called Retinopathy of Prematurity (ROP). The exam will be performed at Sault Area Hospital by a specially trained nurse.

An ophthalmologist from SickKids hospital in Toronto may watch your baby's eye examination via videoconference/secured closed circuit television. Once the examination is complete, the images are sent to the ophthalmologist for review.

What is the Retina?

The retina is the inside lining in the back of the eye. It is the part that absorbs the rays of light that enter the eye. The retina changes the rays into electrical signals. It then sends the signals to the brain as a picture. In this way, the retina is like a film in a camera: it turns the rays of light it receives into a picture that a person sees.



What is Retinopathy of Prematurity?

Retinopathy of Prematurity (ROP) happens in premature babies when abnormal blood vessels start developing at the back of the eye. The blood vessels that feed the retina start at the back of the eye and grow toward the front. They finish forming just before the baby is born at full term.

In a premature baby, these blood vessels have not finished forming. They continue to form after the baby is born. Most of the time, they will form normally and there will be no problem. But if smaller, abnormal vessels start developing, the condition is called ROP.

What can happen if a baby has ROP?

Abnormal vessels can lead to bleeding and scarring in the retina. They may also cause the retina to separate, or move, from its normal place in the eye. This is called retinal detachment. This could lead to poor vision or even blindness.

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How common is ROP?

Nobody really knows why abnormal blood vessels form. Some premature babies need oxygen to help them breathe. It is thought this oxygen treatment may play a part in ROP, even when it is closely monitored.

Not all premature babies have ROP. Babies who are born earlier than 31 weeks or with a birth weight of less than 1250 g are at a greater risk for ROP. The risk of ROP developing also depends on how well the retina has formed.

Checking your Baby for ROP:

The doctor will check your baby's images for any abnormal vessels. If these vessels are treated in time, it may help to stop retinal detachment. Here is what you can expect to happen during the exam:

- Your baby will have special eye drops to make the pupils bigger. The pupil is the dark area in the centre of the coloured part of the eye. The drops take 30 minutes to an hour to work, sometimes longer.
- Since your baby needs to be very still when his/her eyes are checked, he/she will be wrapped in a blanket and held down gently.
- The Nurse Technician will capture images of the retina using a special camera with a bright light called a Retcam. The camera will examine all four sides of your baby's eyes.
- Your baby will have eye drops to numb the surface of the eyeball. Once the eyeball is numb, the doctor will use an instrument called a speculum to hold your baby's eyelids apart. This is because your baby is too young to keep his/her eyes open.
- To get a good look at the eye, the doctor will also use an instrument called a depressor to gently move the eyeball.

Being held down and having a bright light shone in his/her eyes will make your baby uncomfortable. He/She may cry during the exam, but should not feel any pain.

Post Care:

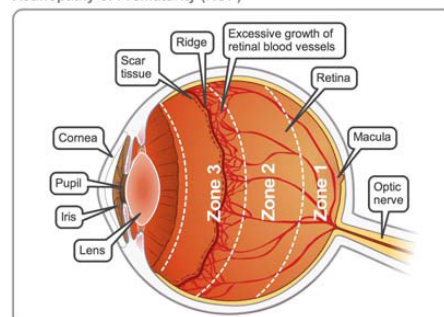
The eye drops used during the examination will make your baby's eyes sensitive to light. Keep your baby out of direct or bright light for up to eight (8) hours after the examination.

Explaining the Condition of your Baby's Eyes:

If there is disease, the doctor will explain the condition of your baby's eyes. The doctor will use the terms "zone" and "stage".

- The zone is graded from one to three. This explains how far the blood vessels have grown on the retina. Zone three is the best result and zone one is the worst.
- The stage explains the severity of the ROP. It is graded from one to five. Stage one is the best (least severe) and stage five is the worst (most severe).

Retinopathy of Prematurity (ROP)



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How often your baby's eyes will be checked:

Your baby's eyes need to be checked often. Sometimes they will be checked every two weeks or even every week. After each examination, the nurse will let you know when the next examination will happen. Once discharged from hospital, you will be asked to travel to SickKids eye clinic in Toronto to have your baby's eyes examined in person by the ophthalmologist.

Treating ROP:

If your baby has ROP, the treatment will depend on your baby's eye condition. Your baby may need laser treatment, freezing treatment, or even surgeries to repair retinal detachment. Your doctor will discuss the best treatment for your baby with you.

Caring for your baby's eyes in the future:

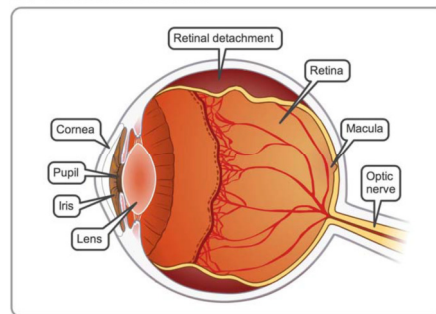
All premature babies need an eye examination by an ophthalmologist, preferably a pediatric ophthalmologist. An optometrist is not the right kind of doctor for premature babies.

If your baby's retinal vessels are normal your baby will still need to see an ophthalmologist regularly, but he/she will no longer need a retina specialist. The doctor may refer your child to a pediatric ophthalmologist in your area for check-ups.

If your baby has been treated for ROP:

Your baby will continue to see a pediatric ophthalmologist who also specializes in retinal problems. When your baby's retinal condition is stable, your doctor may refer him/her to a pediatric ophthalmologist in your area for continued check-ups.

ROP with Retinal Detachment



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Regular checkups are Important:

It is important that your child is seen by an ophthalmologist often. Even when the blood vessels are fully formed, there is a greater chance that a premature baby can have certain eye conditions in the future, such as:

- near-sightedness (myopia)
- cross eyes (strabismus)
- lazy eye (amblyopia), or
- a condition in which the rays of light are focused in each eye at a different point (anisometropia)

The ophthalmologist will want to check your child's eyes for these conditions. If an eye problem is found, your child's doctor may be able to treat it early.

Adapted from SickKids Website

www.sickkids.ca

If there is anything further we can help you with, let us know. We are here to help you.

The Neonatal Staff

Direct Line into the Neonatal Unit – **705-759-3632**

For further information call:

Manager, Women's and Children's Health Program

759-3434, Extension 5521