

Retinopathy of Prematurity



What is retinopathy of prematurity?

Retinopathy of prematurity is an eye problem that can happen to premature babies. The retina lines the back of the eye. It receives light as it comes through the pupil. From there, the optic nerve sends signals to the brain. Retinopathy of prematurity is a problem of the blood vessels of the retina. It occurs in stages. It can cause bleeding and scarring throughout the retina. This may cause the retina to detach. A detached retina can cause loss of eyesight.

What causes retinopathy of prematurity?

Healthcare providers don't know what causes this condition. Babies who are born too early (premature) or at a lower birth weight are more likely to get retinopathy of prematurity. In premature babies, the blood vessels of the retina may not have the chance to develop as they should.

Who is at risk for retinopathy of prematurity?

Babies who are born prematurely are most likely to get this condition. Babies who weigh less than 2 pounds, 12 ounces and are born before 31 weeks of the pregnancy are at greatest risk.

What are the symptoms of retinopathy of prematurity?

Retinopathy of prematurity has no signs or symptoms. The only way to find it is through an eye exam by an eye care provider.

How is retinopathy of prematurity diagnosed?

An eye care provider (ophthalmologist) will look at your baby's retinas. The eye care provider should have experience treating retinopathy of prematurity. Babies should be screened if they:

- Weigh less than 3 pounds, 5 ounces at birth. They should also be screened if they were born before 30 weeks of pregnancy.
- Weigh 3 pounds, 5 ounces to 4 pounds, 7 ounces at birth and have additional risk factors for the condition. They should also be screened if they were born after 30 weeks of pregnancy and have additional risk factors.

Eye care providers use a special system to describe retinopathy of prematurity. They use it to figure out treatment and the timing of follow-up exams. When the baby's eyes are checked, the eye care provider describes the stage and zone of the retinopathy. There are 3 different locations or zones of the retina where retinopathy can occur. There are 5 different stages of ROP. Eye care providers use these stages to keep track of how serious ROP is. The stages range from stage 1 (mild) to stage 5 (severe).

How is retinopathy of prematurity treated?

Your baby will be checked regularly, based on their condition. Many babies need to continue to have eye exams after discharge from the NICU. That is all most babies need. Mild cases of retinopathy of prematurity often go away without treatment.

If your baby needs treatment, the eye care provider can use a laser to stop the growth of abnormal blood vessels. This is called laser ablation. It's the most common form of treatment. Or the eye care provider may use cold therapy (cryotherapy). Some forms of the condition are treated with injections. But the long-term effects of these injections aren't yet known.

There are 2 surgeries that may be done for babies with partial or total retinal detachment:

- **Scleral buckling.** In this surgery, a band is placed around the eye to push a detaching retina back in place.

- **Vitrectomy.** In this procedure, the surgeon removes the gel-like substance inside the eye. This lets the surgeon better reach the back of the eye. They then inject a substance to hold the retina in place.

After treatment, your baby will be checked often. Your baby should have regular exams by an eye care provider. Despite treatment, your baby may still have permanent vision loss.

Can retinopathy of prematurity be prevented?

Preventing premature births is the key to preventing this problem. Finding the condition early and getting treatment can help prevent long-term vision problems.

Key points about retinopathy of prematurity

- Retinopathy of prematurity is an eye problem that happens to premature babies.
- The earlier babies are born and the lower their birth weights, the greater the risks for the condition.
- Most cases of retinopathy of prematurity go away without treatment. When needed, the eye care provider can use a laser to stop the abnormal growth of blood vessels in the eye.
- Ongoing follow-up with an eye care provider is very important.

Next steps

Tips to help you get the most from a visit to your child's healthcare provider:

- Know the reason for the visit and what you want to happen.
- Before your visit, write down questions you want answered.
- At the visit, write down the name of a new diagnosis and any new medicines, treatments, or tests. Also write down any new instructions your provider gives you for your child.
- Know why a new medicine or treatment is prescribed and how it will help your child. Also know what the side effects are.
- Ask if your child's condition can be treated in other ways.
- Know why a test or procedure is recommended and what the results could mean.
- Know what to expect if your child does not take the medicine or have the test or procedure.
- If your child has a follow-up appointment, write down the date, time, and purpose for that visit.
- Know how you can contact your child's provider after office hours, and on weekends and holidays. This is important if your child becomes ill and you have questions or need advice.

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