



Basic Questions and Answers about Retinopathy of Prematurity (ROP)

1. What is the retina of the eye? The *retina* is the back part of the eye. The eye focuses visual images onto the retina, and the retina sends this information to the brain. This is what allows us to see.

2. What is ROP, and what causes it? The retina contains many blood vessels, which usually finish developing before babies are born at full term. In babies born *prematurely*, these blood vessels have not yet finished developing. These immature blood vessels often begin growing abnormally, rather than maturing normally. When this occurs, the abnormal growth of blood vessels is a disease called *Retinopathy of Prematurity (ROP)*. ROP is a leading cause of childhood blindness in the United States and throughout the world.

3. Who is at risk for ROP? Premature infants who weighed less than *1500 grams at birth*, or who were born before *30 weeks gestational age*, are at high risk.

4. How is ROP diagnosed? All of these high-risk babies are examined in the NICU by an ophthalmologist (eye doctor). This requires that the eyes are *dilated* using eye drops. The examination takes approximately 10 minutes, and allows the ophthalmologist to determine whether any ROP is present. Some babies may experience side effects such as episodes of mild apnea and bradycardia for several hours after the examination.

5. How many high-risk babies actually develop ROP? Approximately 60% of high-risk babies develop some degree of ROP.

6. When ROP occurs, how is it classified and who needs to be treated? If ROP is present, the ophthalmologist will categorize the appearance of disease using an international classification system. The *initial eye examination* is usually performed when babies are between 31-33 weeks corrected age. Depending on the initial examination findings, babies generally receive *follow-up eye examinations* every 1-2 weeks.

- a. In 90% of babies who develop ROP, the disease is *mild* or *moderate*. In these cases, the ROP gradually disappears within several months, without needing any treatment other than careful monitoring by an ophthalmologist. The vision in these babies develops normally, as long as no other eye problems occur.
- b. In the remaining 10% of babies who develop ROP, the disease is *severe* and may cause problems such as retinal detachment which can result in blindness. These cases of severe ROP may be treated with laser and other surgical procedures, which can significantly decrease the risk of visual loss. However, visual loss and blindness can still occur even when severe ROP is diagnosed and treated properly.

7. What if I have more questions? Please feel free to ask your infant's physicians or nurses for more information if you have any questions about ROP. The ophthalmologist may use a special camera to take pictures of your baby's retina, which you are welcome to look at.

