Retinopathy of Prematurity or ROP is a disease of the developing retina (the light sensitive membrane lining the eye) that affects some small preterm babies. It consists of abnormal retinal vessels that grow mostly in an area where normal vessels have not yet grown in the retina. These abnormal vessels can later cause vision problems and require careful monitoring.

Babies most at risk of ROP are those born before 28 weeks gestation however screening by an experienced ophthalmologist (eye doctor) is performed on all babies born at less than 30 weeks gestation or less than 1250g. This will first be done around 32 weeks of corrected age and will continue fortnightly until the retinal vessels have sufficiently developed. If ROP is detected, more frequent examinations will be required. About an hour before the examination your baby will have eye drops put in to dilate the pupil for best viewing of the retina. Your baby will remain in the usual humidicrib or cot for the examination and every effort is made to ensure that your baby remains comfortable during the examination. Results of the eye examination will be discussed with you.

ROP is graded into stages. Grades 1 and 2 usually resolve spontaneously however some babies with grade 3 and beyond will require treatment. The ophthalmologist will monitor your baby’s eyes closely. The usual treatment for severe ROP is laser. Laser treatment aims to prevent retinal scarring and detachment that may lead to visual impairment. Laser is required infrequently, and is usually only done a few times per year at RPA Newborn Care.

If your baby needs laser treatment he/she will be transferred to the intensive care area of the nursery. The procedure can take several hours and will require your baby to spend a few days in intensive care while he/she is recovering.

<table>
<thead>
<tr>
<th>Stage 1 Retinopathy</th>
<th>Stage 2 Retinopathy</th>
<th>Stage 3 Retinopathy</th>
<th>Stage 4 Retinopathy</th>
<th>Plus disease</th>
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</thead>
<tbody>
<tr>
<td>Demarcation Line</td>
<td>Ridge</td>
<td>Fibrovascular Proliferation</td>
<td>Retinal Detachment</td>
<td>This involves other eye pathology and signifies worsening disease.</td>
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</tbody>
</table>

A thin white line, or demarcation line, can be seen between the vascularised and non vascularised retina.

A ridge, which has definite height and width, replaces the demarcation line and projects into the vitreous (gel in centre of the eye).

New vessels can be seen projecting from the ridge into the vitreous. This can cause scarring and traction on the retina. Some degree of retinal detachment may occur.

This is a rare occurrence where partial or complete detachment of the retina occurs. Stage four is associated with blindness.