

# Retinopathy of Prematurity



## Description

Retinopathy of prematurity (ROP) is a disease of the retina (layer of light receptor nerve tissue that converts images into electrical impulses transmitted via the optic nerve to the brain) that can occur in premature babies and occasionally full-term infants.

The condition may develop after extended life-sustaining oxygen therapy is given to infants at birth. When infants are born prematurely, the eye is still developing, and blood vessel formation and growth on the outer parts of the retina are incomplete. In ROP, abnormal new blood vessels develop which can leak, scar and lead to retinal detachment.

Many factors influence the development of ROP, including oxygen exposure after birth, genetic predisposition, blood transfusions or low birth weight.

## Implications

Some cases of ROP are mild and correct themselves, but others require surgery to prevent vision loss or blindness. The condition is classified into five stages based on the identified severity ranging from mild vision loss to blindness.

ROP scarring may cause loss of peripheral vision and leaking blood vessels leading to retinal detachment.

ROP is frequently associated with reduced visual acuity, nystagmus (involuntary eye movement), strabismus (misalignment of the eyes), loss of peripheral visual field and high myopia (short sightedness). Glaucoma, optic atrophy, cortical vision impairment and cataracts are frequently associated with the condition.

If optic atrophy is present, colour vision discrimination may be affected and high contrast will be important for visual access.

Treatment options range from no treatment to laser treatment, to surgery. The need for treatment is determined by the location, extent, and stage of the condition.

## Accessing the curriculum

Reduce classroom environmental glare. Avoid whiteboard reflections, gloss laminate and instruction next to windows.

Consider seating to ensure the student has the best possible view of the teaching focus.

Reduce visual clutter by ensuring learning materials are well spaced and well organised on a page.

Remove unnecessary visual information. Ensure strong contrast.

Use bullet points rather than long narrative text when presenting information.

Provide additional verbal descriptions to support instruction and understanding.

Magnification aids, slightly larger print and the provision of dark lined paper may be beneficial.

If vision fatigue is evident, allow the student extra time to process visual information and to reduce visual fatigue. Consider eye rest time.

Modify physical activities and provide detailed verbal instructions of all actions, skills, and rules of the game, where necessary. Provision of verbal cues in catching and throwing activities may assist.

Click to see an [Interactive Eye Diagram](#) (web link)

**As this document contains generic information, please consult with the Vision Education Program in regard to individual educational needs.**

## References

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