



# Laser Eye Surgery

## Parent/Caregiver/Whānau Information – Neonatal Services

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The aim of laser eye surgery is to treat retinopathy of prematurity (ROP) to give your infant the best chance of being able to see. ROP is a condition where the blood vessels in the retina grow abnormally and randomly in the eye. These vessels tend to leak or bleed, leading to scarring of the retina, the layer of nerve tissue in the eye that lets us see. Laser surgery can stop the growth of the abnormal vessels.

With laser surgery small laser beams (one twentieth of a millimetre in diameter) are used to treat the back of the eye in the peripheral retina (the sides of the retina) to stop the abnormal growth of blood vessels and stop them pulling on the retina. Because treatment focuses on the peripheral retina, some peripheral vision may be lost. However, by preserving the central retina, the eye can still do vital functions, for example seeing straight ahead, distinguishing colours, reading, etc. Studies have shown that early treatment gives good results and 50-80% of treated babies have good eyesight.

The ophthalmologist (eye doctor) will explain the procedure and answer any questions you may have before you sign a consent form for the surgery.

Before the surgery, eyedrops are put into your infant's eyes to make the pupils larger. The pupils need to be large to make the surgery easier.

Laser surgery is done under general anaesthetic in an operating theatre. Your baby's breathing will be supported by a ventilator (breathing machine) and there will be complete monitoring of your baby during the procedure. The anaesthetist will talk to you about the anaesthetic and obtain your consent before surgery.

A neonatal nurse, and a doctor if required, will take your baby to theatre and remain during the procedure which generally lasts over an hour. On returning to the neonatal intensive care unit your baby may or may not be ventilated depending on whether the 'wake up' from general anaesthetic has occurred in theatre.

After surgery, your baby's eyes and eyelids may be red or a little swollen. This is normal and will resolve within 24-48 hours.

Please ask your nurse or doctor if you have any questions or concerns.

To make sure the eyes heal properly and that ROP hasn't returned, the ophthalmologist will arrange a follow-up eye examination.

Your baby will be given regular eye checks as they grow up so that any vision problems can be picked up. It is important to attend these examination appointments because research has shown that babies with ROP are more likely to be short-sighted or develop a squint than those without. In babies with severe ROP needing treatment, these problems can be more serious. So, it is possible your baby will need glasses later on.