

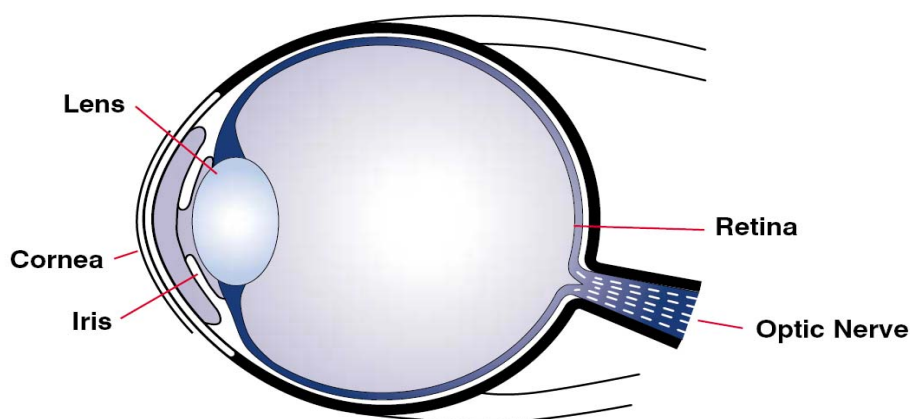
## OPTIC NERVE HYPOPLASIA

What we see is in fact made in the brain. The brain makes sight from signals given to it by the eyes.

### What is the normal structure of the eye?

The eye is made of three parts.

- A light focusing part at the front (cornea and lens).
- A light sensitive film at the back of the eye (retina).
- A large collection of communication wires to the brain (optic nerve).



## What is Optic Nerve Hypoplasia?

Optic Nerve Hypoplasia is a condition present from birth in which the eye does not have all of the usual communication wires between the eye and brain, to transfer information about the visual world.

The loss of this wiring can vary greatly. In cases where one eye is affected more than the other, a squint or lazy eye (amblyopia) may occur. In some cases the child may also have a small pituitary gland which may affect the child's overall growth.

Most cases of Optic Nerve Hypoplasia occur by chance.

## How does this affect the way my child sees?

- If only one eye is affected and the vision of the other eye is normal there should be **very little effect** in the way the child sees.
- If both eyes are affected the vision will depend on **how much of the wiring** has failed to develop.
- **Visual loss** could be central, peripheral or both.
- **In severe cases** the child may only see bright light and large shapes.
- Some children develop **wobbly eyes (nystagmus) or roving eye movements**.

## What can be done to help?

There is no cure for Optic Nerve Hypoplasia. However there are ways to help the child get the best out of their vision.

- **Your child may need glasses.** These should be worn as advised by your child's Orthoptist, Optician or Eye doctor.
- If there is a lazy eye vision may be improved by using **patches**.

## How can parents, family, friends and teachers make a difference?

What needs to be done will depend on the level of visual loss. Many children do not need additional help.

- **Near work.** A close reading position may be preferred and should not be discouraged.
- For some children, **adaptation and modification of materials** may be necessary eg. large print, desk copies of board work and adapted ICT display.
- **School equipment.** Some children may benefit from using some type of **magnifier**. This enlarges print making reading less tiring. It may sometimes be helpful to provide a desk stand or a copyholder, which will bring work to eye level and prevent discomfort and poor posture.

Your eye specialist or Specialist Support Teacher can advise what is best for your child.

## Useful contacts.



### **Birmingham Focus on Blindness**

Tel: 0121 478 5200

### **RNIB**

Tel: 0845 766 9999

### **LOOK (for families with visually impaired children)**

Tel: 0121 428 5038

### **SOD/ONH Support Network**

Corpus Christi Barge

Meadow Lane

Oxford OX4 4BJ

Tel: 01865 790706

E-mail: [arvatec@tesco.net](mailto:arvatec@tesco.net)

Web Site: <http://www.focusfamilies.org>

This information is intended to describe most aspects of the condition but each child is different and there will always be exceptions.

## **Acknowledgements**

This leaflet was compiled by a multidisciplinary team from the eye departments at Birmingham Children's Hospital and Birmingham Heartlands Hospital, Birmingham Focus on Blindness and Birmingham Specialist Support Services.