# Nystagmus Information Pack



Part 1. Introduction: What is nystagmus?

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The different documents that make up the Nystagmus Information Pack can be downloaded or printed.

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This Nystagmus Information Pack has been developed by the Academic Unit of Ophthalmology and Orthoptics, University of Sheffield with funding from Nystagmus Network and the University of Sheffield.

#### INTRODUCTION

## This information pack about nystagmus has been developed for patients, parents and carers.

A diagnosis of nystagmus can be a shock. Each person's diagnosis and vision is individual and nystagmus is caused by many different things and affects individuals differently.

The following guide provides an information overview of what nystagmus is, what life can be like with nystagmus and most importantly the support that is available to you, your children, family, friends and community.

You will have many questions and it is our hope that this guide can answer some of these questions or point you in the right direction to find those answers. Living with nystagmus is a journey, there may be challenges but there are a wealth of adaptations, lots of support, technology and information available to help you fulfil your potential and lead an independent life.







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#### WHAT IS NYSTAGMUS?

Nystagmus is characterised by involuntary, repetitive, rhythmical movements of the eyes where they appear to wobble or flicker. The movement can be slow or rapid, side-to-side, up and down or circular. It is usually seen in both eyes but in rare cases, can affect only one eye.

Nystagmus leads to decreased vision and needing more time to try and see things. Due to the constant movement of the eyes, the eyes are not still when a person is trying to look at something. This means the image "slips" from the fovea - the area of the retina at the back of the eye, which provides the best level of vision.

As the eyes are constantly moving, the fovea has brief moments focussed on the image of interest. The brain then uses these brief glances to see, a process that takes longer and is often less clear in those who have nystagmus compared to someone whose eyes are still.

There are two main types of nystagmus, infantile (sometimes called congenital) and acquired. Infantile nystagmus is present at birth or within the first few months of life. One in 1000 children are born with infantile nystagmus, or with a condition that will lead to infantile nystagmus. Acquired nystagmus occurs later in life and is typically associated with neurological disorders or loss of vision.

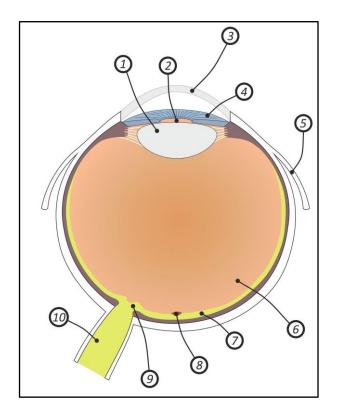






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Figure 1. A cross section diagram to show some of the structures within and around the eye.



- 1. Lens focuses the image onto the retina (7) and fovea (8) at the back of the eye
- 2. Pupil the hole in the middle of the iris (3), which changes size in different lighting conditions
- 3. Cornea the clear part at the front of the eye
- 4. Iris which is coloured
- 5. Extraocular muscles there are six muscles attached to the outside of each eyeball, which move the eyes
- 6. Vitreous clear jelly inside the eye
- 7. Retina the light sensitive layers of cells at the back of the eye, which are used to detect light
- 8. Fovea the small area of the retina (7) that is used for the best vision, as it contains lots of light sensitive cells
- 9. Optic disc where the optic nerve (10) connects to the eye
- 10. Optic nerve used to transmit visual information from the eye to the part of the brain used for vision







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