
Department of Ophthalmology

Paediatric Ophthalmology

Advice for parents of dyslexic children

This leaflet has been designed to inform and advise you relating to the support you can access for your child.

Dyslexia

Dyslexia affects about 5% of the population. It is a specific difficulty with reading which causes a poorer level of reading than would be expected for your child. It is a complex problem with no simple solution.

Children with dyslexia have particular difficulties reading and writing words, usually from the time they start school. Some children complain that the words and letters tend to jump around on the page. The problems can cause dyslexic children to become frustrated, have low self-esteem, show poor concentration at school and fall behind their classmates in reading-based subjects.

What causes dyslexia?

The eyes, vision and poorly coordinated eye movements are often blamed as the cause of dyslexia, whilst the evidence is that dyslexia results from an in-born difficulty the brain has with decoding and processing words. For instance, children with eye disease causing poor vision and/or disordered eye movements do not have the same specific reading difficulties that dyslexic children have.

Dyslexia can be inherited; about 40% of children with dyslexia will have an affected sibling or parent.

It is important that children with reading difficulties have a full orthoptic (testing eye coordination and movement) and optometric examination, with glasses given if needed. Most children with dyslexia will have a completely normal eye examination.

Eye movements and reading

Eye movements can be tracked using special devices. When we read, we do not move our eyes in a smooth movement across the line, but in a series of jerky movements called saccades. Children with dyslexia have disordered tracking, with more backward saccades and longer pauses, similar to the eye movements seen in young children just starting to read.

It is likely that the problems with eye tracking seen in dyslexic children are caused by the difficulties they have in understanding the words, rather than being the cause of it. Children with eye disease that causes their eyes to continuously wobble to-and-fro do not have the reading difficulties that dyslexic children have.

Therapies for dyslexia

Understandably, parents are very keen to explore any form of therapy that might improve their child's reading abilities. A number of therapies are currently available which, although lacking in scientific evidence, some families find useful (although expensive). Some, such as vision training, are considered controversial because of the lack of research evidence that they work.

Vision training

This training is available from behavioural Optometrists in the UK. The therapy involves eye muscle and visual tracking exercises. Training glasses containing a lower power prescription or low power prism are frequently used. Evidence does not support the claim that vision training improves reading. Although Ophthalmologists and behavioural Optometrists disagree about the value of vision training, all would agree that it is important to correct any refractive error and treat any focusing difficulty or squint the child may have.

Irlen tinted lenses – scotopic sensitivity syndrome

Coloured overlays and tinted lenses can be helpful in some children with dyslexia. Coloured overlays are often available for trial in schools. Colorimetry (to determine the tint needed in glasses) is available at some Optometrists. There is some research evidence to support the use of tints in some children but, once again, vision and eye movement disorders should be excluded first.

Educational Psychology and remedial therapy

Education Psychologists are an important support for dyslexic children and can arrange remedial therapy. This is the most successful therapy for dyslexia and there is good research evidence to support its use. Remedial therapy involves the therapist breaking down spoken words into units of sound called phonemes. This therapy is performed on a one-to-one basis and lasts years. It gives dyslexic children a strategy to start decoding words using the phonemes they contain, improving reading ability and speed.

Summary

Dyslexia is an in-born and often inherited brain condition which disrupts the processing and understanding of the written word. It is important to ensure that there is no underlying eye or eye movement problem (Orthoptic and Ophthalmic examination available in the NHS).

There are some expensive and as yet unproven therapies available. An educational Psychologist should be involved at an early stage; the school will be able to arrange a visit.

Remedial therapy seems to be the most useful way to improve a dyslexic child's reading ability. Dyslexia does not prevent high achievement – Leonardo de Vinci, Winston Churchill, Stephen Spielberg are just a few iconic examples!

If you are interested in accessing any of the resources mentioned in this leaflet please speak to your Ophthalmologist, either at your child's next out patient appointment, or via the contact information below.

Contacts and further information

Anglia Ruskin University has an Optometry Clinic (on East Road in Cambridge) which holds a visual stress clinic. Visual stress presents itself in various ways, including reading difficulties, headaches and eye strain, and can be experienced by people with dyslexia.

The Clinic is open from 09:00 to 17:00 Monday to Thursday and 09:00 to 16:30 on Friday.

Further information about the services they provide can be obtained by going along and dropping in to the Clinic, or by contacting staff via the following methods:

Telephone: 0845 196 2070

Email: eyeclinic@anglia.ac.uk

Website: www.anglia.ac.uk/optometry

If you have any concerns relating to your child's immediate health, please contact your General Practitioner (GP). Alternatively, if the matter is a query relating to your child's diagnosis and is non urgent, please be sure to ask your questions at your child's next outpatient appointment, or, contact one of the following:

Consultant Paediatric Ophthalmologist,

Department of Ophthalmology,

Clinic 3, Box 41,

Addenbrooke's Hospital,

Cambridge University Hospitals NHS Foundation Trust,

Hills Road, Cambridge, CB2 0QQ

Secretary: 01223 216700

Clinical Nurse Specialist Paediatric Ophthalmology,

Department of Ophthalmology,

Clinic 3, Box 41,

Addenbrooke's Hospital,

Cambridge University Hospitals NHS Foundation Trust,

Hills Road, Cambridge, CB2 0QQ

Tel: (01223) 596414



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Help with this leaflet:

If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk

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