

Orthoptic Visual Processing Difficulties Clinic



Orthoptic Visual Processing Difficulties Team
Department of Orthoptics

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Welcome to the Orthoptic Visual Processing Difficulties Clinic. The clinic has run for many years at Warrington Hospital and we run clinics at Warrington, Halton and Widnes.

This leaflet is designed to help you to understand the role of the Orthoptist in the assessment of children with visual processing difficulties (VPD).

The aim of the clinic is to diagnose and treat visual problems which may interfere with a child's education. The clinic is not intended to replace the expertise of the teachers, the SENCOs, the specialist teachers or the Educational Psychologists and neither can we give any diagnoses of dyslexia or any other educational problems.

Our Orthoptic expertise lies in the area of Visual Processing Difficulties such as ocular motility problems, visual stress/discomfort, deficiencies in eye tracking movements and visual perception difficulties. Visual processing difficulties and dyslexia do not necessarily go hand in hand however the child may well have some characteristics of dyslexia and an underlying visual problem coexisting. Treating any area of visual difficulty will not be a cure for the dyslexia/learning issue but it will help the child manage their problem in a better way and enable them to better access the information needed to learn.

If the student has seen an educational psychologist or had any specialist teaching assessments it would be very useful if parents could bring any reports they have. I will be in contact with the schools and the other professionals involved in the child's care prior to or following the appointment.

It would be very useful if you could advise the child to visit a local Optometrist (Optician) for a glasses test prior to the appointment. All eye services for children are free. Please will parents bring a copy of the prescription if the child is already wearing glasses.

The clinical assessment is broken up into 4 sections.

In the first section we assess the ability of the child to use their eyes together as a pair, **binocular vision** and the focussing mechanisms of the eyes. For example, a child may be struggling to see clearly for near (accommodation insufficiency). This can be treated with exercises or glasses. The child may have a squint which is interfering with what they see and causing double vision. It is very important to get a baseline visual assessment by our Orthoptic team before progressing onto the more specialised areas.

The second section of the assessment looks specifically at saccadic eye movements. These are the very small eye movements required for reading. A difficulty with a child's voluntary saccades can lead to **tracking eye movement problems**. The child will mix words up, reverse letters, numbers or words, they will

find it very hard to copy from any source and they will lose their place when reading, skipping lines or re reading the same line twice.

Tracking eye movement problems will severely affect a child's reading and comprehension. They may exhibit signs of 'head bobbing' when reading (so the head is making the movements rather than the eyes) rubbing their eyes and feeling uncomfortable when reading or fatigue with prolonged reading. Tracking problems can be treated with a series of exercises aimed at improving these eye movements.

The third section of the assessment looks at **Visual Stress/discomfort**. This leads to difficulties with fine vision tasks such as reading. This eye condition is known to affect reading ability. It is triggered by patterns or stripes, flickers from lights or VDUs and glare from light sources. The child will show signs of visual stress such as excessive eye rubbing, blinking, and watering and general signs of discomfort. They may complain that the words shimmer or move about on the page or are blurred or even that the words jump out at them or the white spaces between each word may make patterns or 'rivers' running down the page. The condition affects about 20% of the general population as well as patients with dyslexia, epilepsy, migraine sufferers, ME and MS, stroke and others.

Visual stress (or pattern related visual stress) is thought to be stimulated by the striped effect of the writing which overstimulates the visual cortex in the brain and produces symptoms. An overlay may be advised with a tint unique to each child. The overlay is thought to redistribute the wavelengths of light entering the eye to the brain and dampen down these symptoms of visual stress.

Like dyslexia, it is not curable but can be treated, and significant improvements can be made.

The symptoms of visual stress such as blurring or moving print and signs such as excessive blinking or watering eyes can be a sign of a binocular vision difficulty. This is why it is so important that a child see an Orthoptist to ensure a full eye examination prior to any assessments for coloured filters

The fourth section of the assessment looks at **Visual Perception**. We diagnose and provide exercises for children who have any of these difficulties. This section is broken down into subsections. This includes sections such as looking at a child's visual memory if that is what they struggle with for example struggling to copy from the board.

Because of the nature of the testing and the difficulties that we are looking for, we do not normally accept referrals for children below the age of 7. This is because most of the difficulties that we look for are normal for younger children to experience (such as losing their place when reading). If there is any concern that a child cannot see prior to referral at age 7, we would suggest that they are referred to a local optometrist for a glasses test in the first instance. If glasses are not needed and/or if the difficulties do not resolve with glasses then they can be referred into the Orthoptic VPD clinic early. Children age 7 and above can be

directly referred using the screening tool which is available on the Warrington and Halton Hospital Website <https://whh.nhs.uk/services/orthoptics/orthoptic-visual-processing-difficulties-clinic>

General parent comments about the VPD clinic

- *"Without this help following my daughters diagnosis I am not sure that she would have improved the way she has with her school work. This I believe has allowed her to now go onto college and study A-levels"*
- *This service has been of great value to my daughter, it has enabled her to receive further support and understanding from teachers in school. It has also helped her to understand why she finds some tasks difficult and now she can improve her reading skills to help her. Thank you*
- *The support provided and advice given has helped my child's school understand his needs and better accommodate him. Ensuring he is seated in correct place, using coloured paper and overlay. This has reduced some of the stress my child feels at school when writing/reading. Highlighting this problem has been vital in understanding his problems and seeking solutions where possible.*
- *Thank you for all your help. I really feel it has made a huge difference to my Son's school work and most importantly his confidence. I am sure helping him so much at this age will make a difference to all his schooling.*
- *My child was continually assessed and we felt that her difficulties although maybe minor compared to other diagnoses, the department were thorough, consistent and approachable. My Daughter was made to feel important and was helped to achieve her potential at school. I feel that although she has been discharged should we have any difficulties in the future, the department would still be there for us for any support/advice. Thank you.*
- *Thank you for providing such a worthwhile and important service at Warrington. I will and already have recommended your service to others. My son is dyslexic, it is easy to get swamped and lost in a sea of trying to help but your report has proved pivotal in getting my Son's high school involved and the recommendations are clear and achievable. Thank you.*

Finally I would like to share some facts with you:

- *80% of children struggling with reading and writing showed poor binocular vision, poor tracking and poor eye movement control (Northway 2005)*
- *80% of children with visual symptoms associated with reading have problems that Orthoptists can treat. (Fowler 2002)*
- *Of children who performed poorly (and below teacher's expectations) in their SATs, 60% had defective binocular vision. Compared with only 20% of the high achievers. (Shayler 2003)*

Orthoptic Visual Processing Difficulties Clinic Information for Patients

- Our patient information reference: pinfo 2012_5_03_01 Ratified: 25/01/2017 Review date: 25/01/2021
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