Wardale Williams
THE OPTICIANS

INDEPENDENT • EXPERIENCED • PROFESSIONAL

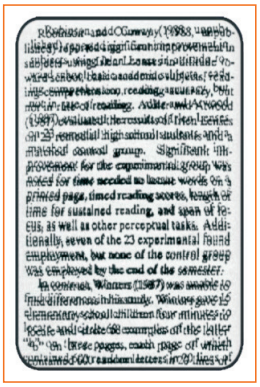
+ Share with a friend

Colorimetry

Using colour can help to relieve the symptoms of visual stress

Many children and adults find reading rather difficult or uncomfortable because they experience visual discomfort or stress when looking at a page of text. Symptoms of visual stress can include:

- Words moving
- Blurring of print
- Squashed-up print
- Words changing shape or size
- Print fading or becoming darker
- Words running into each other
- Patterns of "white rivers" appearing in-between the words
- Rapid tiring when reading
- Sore eyes or eyestrain
- Headaches.



Simulation of one type of visual stress symptom

Any of these symptoms can affect reading fluency and comprehension despite otherwise normal good vision and intelligence. Signs that your child may be experiencing visual stress can include a poor reading ability, skipping words or lines, inattention and restlessness when reading, excessive rubbing or blinking of eyes or avoidance of reading altogether.

Visual stress is also sometimes known as Meares-Irlen Syndrome or Scotopic Sensitivity Syndrome. This is not the same as dyslexia which can be described as an unexpected problem in learning to read and spell in people who seem otherwise capable and intelligent.

Visual problems are not the cause of dyslexia, although visual stress can contribute to reading difficulties and is often also found in dyslexics as well as many other conditions such as autism, ADHD, brain injuries, photosensitive epilepsy and photosensitive migraine.

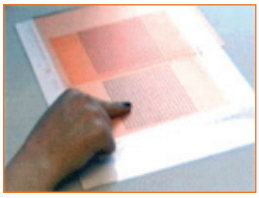
Scientific research has shown that the symptoms of visual stress can be alleviated by the use of colour. Coloured overlays can be placed over a page of text or Precision Tinted Lenses can be worn in spectacles. The specific colour required is different for each person and needs to be carefully assessed by a fully trained practitioner. The optimum colour for an overlay is not always the same as that needed in spectacles. Children with reading difficulties are usually given a coloured overlay initially and if they continue to use the overlay voluntarily over a period of several weeks they are likely to benefit from wearing tinted glasses. Anyone suffering from photosensitive migraine or epilepsy may benefit immediately from Precision Tinted Lenses as certain stressful patterns can be found in our everyday lives that may trigger attacks and this effect is reduced by wearing the Precision Tinted Lenses.

Anyone who is having difficulty with reading or experiencing symptoms of visual stress should firstly have a full eye examination with a qualified optometrist to rule out any other problems with vision such as myopia (short-sightedness), hyperopia (long-sightedness), astigmatism or difficulty using the two eyes together (binocular vision). These problems can be usually helped with prescription spectacles or simple eye exercises (vision therapy). All children under the age of 16 are entitled to a free annual NHS eye examination and those between 16 and 19 but still in full time education are entitled to a free biennial NHS eye examination (once every 2 years). Vision therapy is not covered under the NHS eye examination and will incur a private fee.

Continued >>>

Coloured Overlays Assessment

A coloured overlay assessment determines the optimal colour to use over a page of text to alleviate symptoms of visual stress. Many different colours are compared and a simple test is used to determine whether the chosen coloured overlay affects reading fluency. The chosen overlay can then be taken away and used for reading. Coloured overlays are, however, not suitable for written work or for reading words on white boards or computer screens. If the coloured overlays are found to be beneficial for reading, then coloured spectacles may be considered which are much more convenient for writing, computing and board work.



Comparison of two different coloured overlays

Colorimeter Assessment

The optimum colour for Precision Tinted Lenses is determined by a machine called an Intuitive Colorimeter. This machine was developed by Professor Arnold Wilkins of the University of Essex together with the Medical Research Council. The Intuitive Colorimeter systematically measures the 3 different parameters of colour; hue, saturation and brightness. By independently changing each parameter, the precise tint required to alleviate visual stress is determined. The exact details of the tint are then sent to a specialist laboratory to produce the Precision Tinted Lenses which can be incorporated into a normal spectacle frame. It is then advisable to have an annual colorimetry check as a change in the optimal colour can occur over time.

The Intuitive Colorimeter

Suffering from visual stress or dyslexia is no barrier to achieving excellence in all walks of life. Famous people that have, or did have, dyslexia include Strictly Come Dancing's Kara Tointon, actors Tom Cruise and Orlando Bloom, musicians Cher and John Lennon, Olympian rower Steve Redgrave, artists Andy Warhol and Leonardo da Vinci, author Agatha Christie, Prime Minister Winston Churchill, head of the Virgin empire Richard Branson, the filmmaker Walt Disney and even the great Albert Einstein.