Dyslexia/Dyspraxia

We have helped many adults and children with Dyslexia and/or Dyspraxia by working with them/their parents to create personalised nutritional programmes based upon their health history, symptoms and test results. If you would like to learn more about how we can help you, please click here.

Read on for more information on how Dyslexia and/or Dyspraxia can be influenced by nutrition.

Dyslexia causes difficulties in learning to read, write and spell. Short-term memory, mathematics, concentration, personal organisation and sequencing may also be affected. Dyslexia usually arises from a weakness in the processing of language-based information. Biological in origin, it tends to run in families, but environmental factors such as nutrition also contribute. Dyslexia can occur at any level of intellectual ability. It is not the result of poor motivation, emotional disturbance, sensory impairment or lack of opportunities, but it may occur alongside any of these. The effects of dyslexia can be largely overcome by skilled specialist teaching and the use of compensatory strategies.

Dyspraxia is generally recognised to be an impairment or immaturity of the organisation of movement. Associated with this may be problems of language, perception and thought. For the majority of those with the condition, there is no known cause. Current research suggests that it is due to an immaturity of neurone development in the brain rather than to brain damage. People with dyspraxia have no clinical neurological abnormality to explain their condition.

Around half the dyslexic population is likely to be dyspraxic, and vice versa. Current evidence suggests that up to 20 per cent of the population may be affected to some degree by one or both of these conditions.

Is your child affected?

Children with dyslexia experience specific problems in learning to read and write, sometimes because of subtle variations in visual perception. Difficulties in arithmetic and reading musical notation are also common, as are poor working memory, problems with deciphering the sounds of words, and a faulty sense of direction.

Around 5 per cent of the population is severely dyslexic, although many more are affected by milder forms of the condition. Many schools have special needs teachers who can assess your child thoroughly. If your child's school doesn't do this, contact the Dyslexia Institute, they can put you in touch with an educational psychologist who can carry out this assessment.

Getting your child assessed is useful on a number of counts: it helps them become aware that they have a difficulty, allows them to work with a special needs teacher to minimise the problem, and gives them special privileges such as more time for exams and the use of computers at
Recent research suggests that pure dyslexia - that is, substantially delayed reading and writing in otherwise bright children - may have to do with a subtle brain difference in how these children perceive the 'small sounds', or phonetical building blocks, of words. This makes it harder for them to both read and understand word meanings, as they simply don't have a good grip on the basics. Special teaching techniques to compensate for this can dramatically improve your child's reading and writing skills. The Dyslexia Institute can help you locate a teacher.

Less well-known but equally prevalent, dyspraxia involves poor coordination and difficulties in carrying out complex sequenced actions. Children with the condition find it hard catching a ball, tying up shoelaces or doing up buttons, but more seriously, their handwriting can be extremely difficult to read, and they can experience real difficulties with organisation, attention and concentration.

On top of assessments and tailored teaching, children with dyslexia and dyspraxia can benefit massively from the right nutrition. The most important factor to consider is:
- Essential fat deficiencies

To find out more about these factors read on, or click on our Action Plan to Overcome Dyslexia/Dyspraxia

**NUTRITION & DYSLEXIA/DYSPRAXIA – WHAT WORKS**

**INCREASE YOUR OMEGA 3 FATS**

Children with dyslexia, dyspraxia and learning difficulties are very often deficient in these essential fats and/or the nutrients needed to properly utilise them, and the benefits of increasing the intake of these fats have been clearly documented in many studies. A high concentration of essential fats is needed in the eyes before they can manage the very rapid movements associated with vision.

A study of 97 dyslexic children by Dr Alex Richardson and colleagues at Hammersmith Hospital in London revealed that essential fat deficiency clearly contributes to the severity of dyslexic problems. Those children with the worst essential fat deficiencies showed significantly poorer reading and lower general ability than the non-deficient children.

The Oxford-Durham trial, involving 117 children between the age of 5 and 12, all of whom were attending mainstream school and met the criteria for DCD/dyspraxia, found significant improvements in reading, writing and symptoms of ADHD after 3 months of taking eye q fish oil supplements from Equazen containing the omega-3 oils EPA, DHA and the omega-6 oil GLA versus placebo.

If your child has some of the outward symptoms of essential fat deficiency - rough dry patches on the skin, cracked lips, dull or dry hair, soft or brittle nails, and excessive thirst - it is fair to say that this could be an underlying factor in learning difficulties they might be experiencing, such as concentration or visual problems, mood swings, disturbed sleep patterns and in some cases behavioural problems. This is because dyslexia, dyspraxia, learning difficulties and ADHD all involve poor nerve cell communications in the brain, and essential fats are crucial in keeping neurons talking to each other.

To test the value of supplementing essential fats in
dyspraxia, Dr Jacqueline Stordy of the University of Surrey in the UK gave essential fat supplements containing DHA, EPA, AA and DGLA to 15 children whose performance on standardised measures of motor and coordination skills placed them in the bottom 1 per cent of the population. After 12 weeks of supplementation, they all showed significant improvements in manual dexterity, ball skills, balance and parental ratings of their dyspraxic symptoms.

Stordy also assessed the benefit of essential fat supplementation in dyslexia, and found that after just four weeks of supplementation with EPA and DHA, their night vision and dark adaptation (which are usually very poor in dyslexics) had completely normalised.

**Where's the evidence?** Enter 'omegas and 'dyslexia' or 'dyspraxia' into the search field for a summary of studies that demonstrate the effect of essential fats on dyslexia and dyspraxia.

**Side effects?** Rarely causes loose stools in sensitive individuals if you start on too high a dose.

**Contraindications with medication?** Essential fats may have a 'blood-thinning' effect and should not be mixed with 'blood thinning' medication.

See **action plan** for our recommendations.

**References:**

A. J. Richardson and J. Wilmer, Association between fatty acid symptoms and dyslexic and ADHD characteristics in normal college students, paper given at British Dyslexia Association International Conference, University of York, April 2001

M. H. Jorgensen et al., 'Is there a relation between docosahexaenoic acid concentration in mothers' milk and visual development in term infants?' J Pediatr Gastroenterol Nutr, Vol 32, 2001, pp. 293-6

A. J. Richardson et al., Fatty acid deficiency signs predict the severity of reading and related problems in dyslexic children, paper given at British Dyslexia Association International Conference, 2001


