Keith HOLLAND & ASSOCIATES optometrists

In the Press

A selection of articles re-printed from regional and national press

In The Press

Gloucestershire's Child Magazine

Can your child really see to learn?

By Keith Holland FCOptom, FAAO, DipCLP

Jack started school at five, full of enthusiasm, articulate and full of questions. He loved learning, loved looking at books, and his parents were full of hopes for his future. But two years later his parents were worrying that he no longer enthused about learning, and was in the bottom third of his class. He loved TV, and could always recount information he had picked up from documentaries, yet he was becoming reluctant to read, and hated writing. The clue to what was wrong came when he was seen to rub his eyes in class; after a careful eye examination he was found to have vision related learning difficulties. A combination of glasses and some eye exercises soon had Jack interested in books again.

As our children move towards the annual round of exams and tests, have you considered whether your child can see properly to learn? Research in the USA has shown that an incredible 1 in 10 children do not see well when working up close - yet have good sight for long distances. Studies have also shown that these same children may get mistakenly diagnosed as suffering dyslexia, dyspraxia or ADHD.

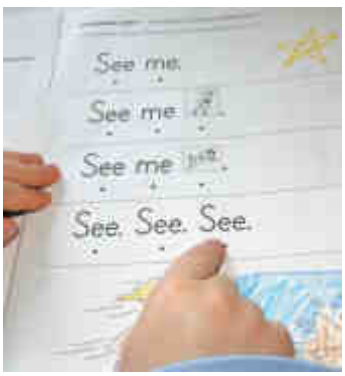
"Ah, yes! But my children get their eyes tested at school, so I have no need to worry"

Sorry, but that is no longer the case, and even in the days of regular school eye checks, they did not look at vision problems associated with studying. Unless you have your children's eyes regularly checked throughout their school career, there is a real chance that they may under-perform because of subtle problems with their vision. So how can you spot the early warning signs - and what can be done to help?

Optometrists have produced checklists to help spot the early signs of visual problems, and it is a good idea to run through such a list with your child. Many children experience symptoms associated with close work but never comment on them, assuming they are normal and they just have to get on with things.

So why do so many children have vision problems, and what goes wrong? The causes of vision problems can be complex, but usually involve difficulties with one or more of the following abilities.

CONVERGENCE CONTROL: it is vital that the eyes effectively work together at close distances since difficulties in maintaining accurate convergence are probably the most common single factor that optometrists identify in children or adults with reading difficulties.



FOCUSING: Poor focus makes it hard to maintain attention at close distances and may cause print to seem blurred, or may cause a tendency to 'switch off' when working. Children with focus problems frequently complain of difficulty in switching focus from one distance to another, for instance when copying from a blackboard or whiteboard; and have problems with tiredness associated with sustained reading. Not only must the eyes both focus and converge, but they must do so at the same point, and many of the children with vision related learning difficulties find it hard to integrate these two systems. Whilst they may 'get it together' for short periods, they are unable to keep this up over time, and may show quite rapid deterioration in the quality of their reading over a short period of time.

EYE MOVEMENTS: Accurate and precise control of eye position as we move along a page of text is a very complex task and involves a number of abilities. Breakdown in control affects the ability to track or scan well, and cause us to lose place easily.

PERIPHERAL AWARENESS: At any moment in time we are only attending to a fairly small area of our visual space world, and the size of this 'attention span' is crucial in determining how we process and take in information. A reduced span means more eye movements are needed, and there is more chance for errors to be made.
Much current research is centred around the way that the brain integrates peripheral and central vision, and this seems to affect not only the visual system but the auditory system as well.

A child whose brain is less able to perform this integration may have a genetic cause, and may also be affected by their diet, and its affect on brain chemistry. This is perhaps one of the most exciting areas for future research. For example, it has been found that taking certain food supplements that supply key fatty acids known to help brain chemistry helps many children with either visual or auditory problems.

If you suspect that your child may be suffering from a visual problem, what should you do?

In the same way that some dentists specialise in orthodontics whilst others don't, so there are some optometrists who specialise in children's eye care. Unfortunately, there is no easy means of identifying who they are. One route is to look for members of The British Association of Behavioural Optometrists, who have undergone extensive postgraduate training in the fields of vision and learning - see the Association's website at www.babo.co.uk.

Even if you do not suspect that your child has a problem, it is important to ensure they have their eyes checked out regularly throughout childhood. Professional advice is that they should be checked annually until the age of sixteen (and this is paid for by the NHS), and then bi-annually after that. And don't think that your child must be able to read before they can be checked! No child is too young to be seen, modern techniques mean that even babies' vision can be checked out.

A routine eye examination will typically take about twenty-five minutes; it is painless - and great fun! But note that if vision problems affecting learning are present the examination may take a lot longer, and is not then usually paid for by the NHS.

If problems are found, there are two common approaches taken. Firstly, spectacles may be recommended, either for full-time wear, or just for study and close work. Modern frame designs are fun and fashionable, and are a far cry from the old black, brown or blue NHS frames of yesteryear.

Most of the 'fashion' names that are recognised by children are also associated with spectacle design - so coordinated trainers and glasses are now possible!

Exercises (also known as vision therapy) may also be used to develop long lasting visual control; this is probably the most permanent approach, one that can change the entire system, not only affecting reading, but helping general co-ordination skills, thinking skills and the speed with which information is processed in the brain as well.
Is there anything that can be done to help prevent vision problems from occurring in the first place? Some researchers think that the increase in eye problems that are seen today is connected with the amount of time spent working close-up; they advocate increased amounts of sport and outdoor activities. Other researchers have also suggested that starting reading and writing too early in life can also be a factor. But one thing is for sure: in these days of increased expectations of our children, the need for good eye care for our children is more important than ever.

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In The Press

THE TIMES

Children need to focus

Underachievers might benefit from eye exercises, says Celestria Noel

Extra lessons for many children will help them if they are struggling at school. For others, eye exercises may be all they need. "One of the major causes of educational underachievement in this country is unrecognised visual difficulty," says optometrist Keith Holland. "It sounds like a sweeping statement, but we tested nine children who had been excluded from school here in Cheltenham and found that eight showed quite severe types of problems with vision."

Holland is not talking about myopia, which tends to get picked up in routine eye examinations, but poor convergence and focusing.

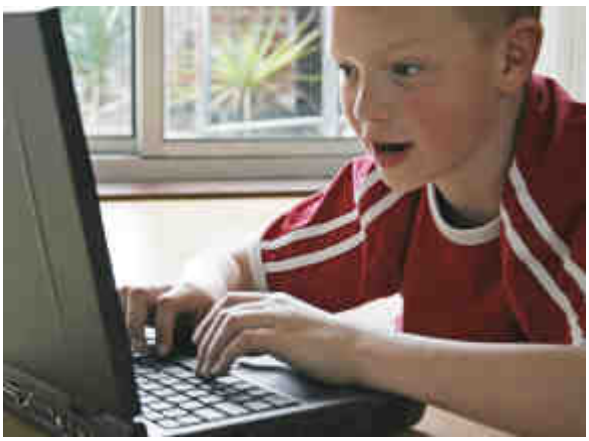
The eyes must focus on a point to produce a clear image on the retina of each eye, and the two eyes must co-ordinate so they are looking at the same point, using the convergence mechanism. Two separate muscle systems are involved.

"In this country we tend to look at how eyes work and tests on how eyes 'team up' can be quite rudimentary, whereas in Australia and America such tests are commonplace," Holland says.

The optometrist says he has come across a number of children who suffer from acute stress simply because their eyes do not align and they are not tested properly. Many of them will get blurring or headaches. Others will rub their eyes and often almost lie on top of their writing books. Some try so hard to correct their problem that they may develop myopia, while others give up on close work because it actually hurts. As the sufferers get older they may develop the attitude of "I don't like school".

Edward Vigors is 12 and was classed as severely dyslexic. Before treatment, he could just about copy numbers from a blackboard but not words.

Then his mother took him to see Holland. After his assessment he was given a pair of glasses and then booked in for 12 one-hour sessins of vision therapy. "I loved it," says Edward grinning. "Almost straight after I got the glasses I noticed a difference."
The exercises, carried out in a large room on the first floor of the Georgian house where the practice is based, involve gadgets, from computers to balls which bounce back at funny angles and peg boards that are spun round. The exercises are done with the naked eye and then wearing glasses which change the focus.



Edward can now read - his first book was Bernard Cornwell's - Sharpe's Fortress. He is still slightly dyslexic and does most of his written work on a computer, but words make sense to him now.

"I like their patterns," he says. "It's funny seeing how a word like 'your' actually looks." He has become confident and cheerful. "In fact, after last week's session he sang in the car the way home," says his tired, but delighted mother.
"The golden age is 12," says Holland. "Old enough to see the point, but not at the grunt stage. However, we also see children from eight upwards."

He lectures on vision therapy all over the world and has patients from every country in Great Britain and 50 foreign countries. But his is no longer the lone voice it was ten years ago; today the British Association of Behavioural Optometry can recommend a growing number of practitioners.

I would like to see some more research funded here - it is all done in America," says Holland. "There is resistance to vision therapy in the medical profession, just because they know nothing about it, but you would be amazed at how many doctors' children I treat."

Taken from The Times Newspaper - Home Life Section, 24/7/1999