

Re: Edward K

12/03/2010

DOB:

I had the pleasure of seeing Edward K for a visual efficiency and information processing evaluation on 11/30/2010. Previous eye examination revealed that his ocular health was normal. The following is relevant history acquired at the time of evaluation.

1. Edward is in the 7th grade at Stone Bridge Middle School where he has had difficulty with reading comprehension, spelling, writing, memory, attention/concentration as well as a slow working pace.
2. Edward tends to skip small words while reading and occasionally reverses letters.
3. Edward reports that his eyes become tired especially later in the day.
4. Edward has been diagnosed with Attention Deficit Disorder and a processing delay. He is currently treated with medication and has an IEP in school where he is allowed extra time when taking tests.

The results of the evaluation are enclosed. They indicate that Edward has the following visual conditions.

Convergence Excess and Left Hyperphoria (fusional instability or eye teaming difficulties).

A skill that is important for reading is eye-teaming ability. Eye coordination, or the ability to use the two eyes together as a team, was evaluated and I found that this skill was inadequate for Edward, as he displayed convergence excess and a **left hyperphoria**. Patients with convergence problems and hyperphoria often rub their eyes, blink excessively, or cover one eye when reading. Other symptoms may include blurred or doubled vision while reading, inability to clear vision at distance after reading and fatigue or headaches while reading. Edward may also tilt his head to the right to help focus and accommodate for the hyperphoria and he may also avoid reading or have trouble concentrating rather than suffer discomfort.

Oculomotor dysfunction (eye tracking deficiency)

Eye tracking, or the ability to track a moving target and switch fixation from one target to another, permits accurate visual scanning and exploration. It is also an important skill for reading and copying from the blackboard. Inadequate eye movement control may cause Edward to lose his place when scanning visual stimuli and when reading. He may also have difficulty copying from the blackboard and be unable to sustain at a visual task for any prolonged period of time.

Mild Accommodative Infacility (focusing difficulties)

Another skill, which is important for maximum academic efficiency and comfort, is focusing ability. This skill allows rapid and accurate shifts of attention from one distance to another with instantaneous clarity, such as when copying from the blackboard. It also permits the student to maintain focus at the reading distance. Deficient accommodative skills may result in discomfort or redness of the eyes, headaches, rapid fatigue, or difficulty shifting between the chalkboard and desk as well as occasional blurring of vision.

Visual Intake-Visual Memory Deficit

Obtaining maximum visual information in the shortest possible time provides for optimal academic and athletic performance. The ability to retain this information over an adequate period of time is essential for proficiency in reading comprehension and spelling.

The Visual Memory sub-test of the PTS measures the ability to remember a single form. The Visual Sequential Memory sub-test measures the visual ability to remember information in specific sequence. Edward scored in the 13th percentile on the Visual Memory sub-test and in the 14th percentile on the Visual Sequential Memory Subtest.

Recommendations

1. Vision Therapy

A program of vision therapy is recommended to remediate the visual conditions discovered during the evaluation. I anticipate an active vision therapy program of about four months, 32 sessions, to remediate the vision conditions documented in the report. Edward will be re-evaluated periodically to assure that he is making progress in his vision therapy program.

The goals and hoped for benefits of the vision therapy are summarized below:

- a. **Improve divergence and eye teaming abilities** which would have the effect of improving visual comfort as well as making reading and studying more efficient.
- b. **Improve visual tracking skills** which would reduce loss of place and skipping or words while reading and the secondary benefit of improved selective and sustained visual attention.
- c. **Improve accommodative (focusing) ability** which should serve to make it easier to focus quickly and accurately to the blackboard and the paper and reduce blurred distance vision after reading.
- d. **Improve short term visual memory**, which will help retention of visual information (such as reading) for retrieval and use afterwards.

Accommodations

I recommend a compensatory approach be adopted as the first step in limiting the effects of these lags. During the initial stages of vision therapy Edward should be encouraged to:

- Be seated near the blackboard.
- Use a finger or a straight edge to track words until the oculomotor status improves.
- Minimize chalkboard to desk copying and where possible substitute desk copy work.
- Be allowed extra time on tests and assignments. Edward requires extra time to reread information to avoid errors and to provide an accurate measure of his capability.

It is a pleasure to participate in the care of this delightful young man. If you have any questions or need additional information, please feel free to contact me.

Sincerely,

Barry M. Tannen, O.D., FAAO, FCOVD
Board Certified in Vision Development and Therapy

Amy M. Bartal, O.D.
Resident in Vision Therapy and Rehabilitation

Patient: Edward
DOB:
DOE: 11/30/2010

Vision Efficiency and Processing Evaluation

Test	Exam Result	Normal Range	Interpretation
Best corrected visual acuity	RE: 20/20 LE: 20/20	20/20	Normal
Refractive Status	RE: -0.50 LE: -0.50	N/A	Mild Myopia
Distance Phoria	orthophoria	0-2 exophoria	Normal
Near Phoria	5 exophoria	0-6 exophoria	Normal
Near Vertical Phoria	1 left hyperphoria	isophoria	Hyperphoria
Nearpoint of convergence	3 inches	3 inches	Normal
Near Convergence range	10 pd	18-24 pd	Fusional Instability
Near Convergence recovery	4 pd	7-15pd	Fusional Instability
Near Divergence range	8 pd	18-24pd	Convergence Excess
Near Divergence recovery	4 pd	10-16pd	Convergence Excess
Vergence Facility	6.5 cpm	15cpm	Fusional Instability
Accommodative Facility	RE: 10 cpm LE: 12 cpm	12 cpm	Mild Accommodative Infacility RE
WIAT-II Pseudoword Decoding Subtest	58 st %ile	38 th %ile or better	Normal
Gardner Test of Reversal Fluency- Recognition Subtest	40 th %ile	38 th %ile or better	Normal
Beery Visual Motor Integration Subtest	87 th %ile	38 th %ile or better	Normal
PTS Tachistoscope Test	13 th %ile	38 th %ile or better	Visual Memory Deficit
PTS Visual Span Test	14 st %ile	38 th %ile or better	Visual Memory Deficit
Test of Silent Word Reading Fluency	27 th %ile	38 th %ile or better	Reading Fluency Deficit
Developmental Eye Movement Test	Speed: 47 th %ile Errors: 76 th %ile	38 th %ile or better	Normal
Visagraph Reading Eye Movement Test	2.3 grade level	7.0 or greater grade level	Ocular Motor Dysfunction

Pd= prism diopters cpm cycles per minute OD=right eye OS=left eye OU=both eyes