

20/20 is not enough by Art Seiderman & Steve Marcus (1989)

Snellen chart is only designed to see what we can see 20' away. 20/40 means that one sees at 20' what a normal eye sees at 40'. Nearsighted (myopic) people tend to be introverted & farsighted (hyperopia) people tend to be outgoing. Evaluate your vision on pages 12-14 & 57-58. Strabismus is when one eye turns differently than the other. Binocular vision allows us to see in 3D (one eye alone cannot perceive depth). Look for red flags in a child (clumsy, hyper, poor reading, troubles in school, headaches, tired, hates school, irritable, poor depth perception, short attention span, poor handwriting, low self-esteem, aggressive, poor retention). Vision (what the brain interprets what we see) is learned & therapy can improve it.

Therapy can also improve peripheral vision, reaction time, strabismus, nearsighted, concentration, visual memory, headaches, double vision, convergence (hold eyes on a target) & lazy eye). Vision Therapy may be controversial & may not be covered under insurance. Optometrists prescribe glasses and ophthalmologists treat eye disease & surgery. A child's vision needs stimulation & nutrition. In the 50's, 20% of the kid's vision was not ready for school, now it is 40% due to too much TV & video games (2D). 73% of reading-disabled kids suffer from vision disorder. Kids don't begin to reason as adults do until they are 11-14. Up to age 7, kids believe anything they see (great for magicians). About the same age, he can perceive that different shapes can contain the same volume. A student with poor figure-ground perception cannot concentrate. 80% of juvenile delinquents have learning disorders.

Avoid reading stress (book or monitor) by looking away from time to time and take an hourly break. It is harder to read on a monitor than on a printed page. Visual fatigue leads to physical stress and more susceptible to illness. A driver with 20/40 by daylight might have 20/200 at dark. We should have 180 degree peripheral vision (<140 is hazardous) and it decreases with speed. While driving, avoid staring, keep eyes moving. Loss of visual field is usually the result of disease. Older people need stronger lighting. Natural lighting is best. Avoid shadows and glares. "Keep your eye on the ball" improves eye-hand coordination. Concentration is both a state of mind and a visual skill.

Vision tests: Snellen chart (static acuity), tachistoscope (ability to absorb & reproduce visual info), Winter Haven Visual Copy Forms test (eye-hand coordination), cheiroscope (separates images to each eye), reading eye camera (records eye movement while reading), visual scaling (scanning effectiveness), Brock string (eye convergence), dominate eye (look thru "O" of thumb & finger with both, then separate eyes), peripheral vision, Accommotrac (biofeedback to relax the eye & focus), Southern California test (figure-ground perception) & others.

Books: Your Child's Vision (Richard Kavner), Vision & Highway Safety (Merrill Allen), The Umpire Strikes Back (Ron Luciano), The Ultimate Athlete (George Leonard), A Sense of Where You Are (John McPhee), Better Eyesight Without Glasses (William Gates), The Art of Seeing (Aldous Huxley),

Quotes: "If the key to a better society is a better education, then the key to a better education is better vision" (Luci Johnson).

Links: www.add-adhd.org ; www.visionstherapy.org ; www.allaboutvision.com ; www.childrensvision.com ; www.covd.org ; www.eyecanlearn.com