

“You Can’t Hit What You Can’t See”

by Teresa Bowen



“Keep your eye on the ball!” The Little League coach yells to the batter. Another curve ball crosses the plate and another swing and a miss. “Strike 3,” the umpire yells. The batter drops his head, dejected, and walks toward the dugout. The coach shakes his head, wondering why the child does not listen to him. The parents sigh, disappointed that their athletic, talented son, strikes out yet again. What to do? More batting lessons? More time in the cage? A new bat? Maybe not.

The ability to hit a curve ball in youth baseball is not only very desirable, but a necessary skill at more advanced levels of play. The curve ball travels slower than a fast ball but is more difficult to hit because it changes direction suddenly as it crosses the plate. Often batters who are quite proficient at hitting a fastball have difficulty hitting a curve ball. Why? Because it requires higher level visual tracking skills, as well as the ability to see the rotation of the seams on the ball. Could it be that the child is striking out no matter how hard he tries to “watch the ball” because his visual system *cannot* accurately “see” where the ball is?

A little known fact outside the world of optometry is that many people are not really “looking” where they think they are looking. The child *is* watching the ball, and *is* swinging where he “sees” the ball, but that is not really where the ball is. When both eyes aim at the same object in space, they must turn in, or converge in order to create a single picture. Sometimes

because of muscle irregularities, the eyes may not converge directly on the object, but in front of or behind the object. When the object is moving, the eyes must not only aim accurately, but also focus, track and work as a team.

Can improving these visual skills help children to hit a curve ball?

A new vision exercise system called Exercise Your Eyes (E.Y.E.) was tested to see if it could. The E.Y.E system was created by Dr. Jacob Liberman, optometrist, pioneer in the field of color and light therapy, and author of two books: *Light: Medicine of the Future*, and *Take Off Your Glasses and See*. The E.Y.E. training system is designed to improve focusing, tracking, and teaming in a 10-minute daily routine. The system is more efficient than prior approaches to exercising the eyes because of its use of alternating red and blue lights. The E.Y.E. device is about 3 feet long and looks like a little like a space craft. The user sits in front of the E.Y.E. wearing red and blue glasses and allows his eyes to move from one light to the next. Dr. Liberman explains how it works. “Since viewing red and blue light creates opposing effects in the eyes, alternately looking at these colors creates a rocking action that stimulates and relaxes the eye’s aiming and focusing mechanism. Only the eye behind the red lens can see the red light and only the eye behind the blue lens can see the blue light. This system allows each eye to be trained individually to aim, track and focus, while simultaneously reinforcing the ability of both your eyes to work together as equal partners.” It is like training a batter to become a “switch hitter.”



In the fall of 2004, twelve players (age 12) in Davis, California were each thrown 40 curve balls from a pitching machine in a batting cage. The number of hits, fouls and misses were tallied. Then the players used the E.Y.E. training system for 10-minutes a day, six days per week, for a total of three weeks. The participants did not play baseball during this time. At the end of 3 weeks, the players were given the same pitches. The players improved an average of 34%. **Their**

hitting performance had improved without even touching a bat! A month later, this 12U tournament team, the Davis Mavericks, came out of the losers bracket to win their first league championship.

In 2003, there were more than 2.3 million children, worldwide, involved in Little League Baseball. Many of these children will lose interest because of poor performance. How many talented players will quit because of poor visual skills? Mont Hubbard, engineering professor at the Sports Biomechanics Laboratory at UC Davis, agrees that vision is an important aspect of hitting a baseball. In the *Science of Baseball*, UC Davis Magazine, Summer 2004, Hubbard states “If you see the ball well, that makes a lot of difference, especially for a hitter. The eyes are the control tower from which everything depends.” He would like to see visual training receive more scientific attention. The Davis Mavericks are convinced of the value of vision training.



Davis Mavericks Fall League Championship, November 2004.

This study was conducted by Teresa Bowen, a vision educator and avid baseball fan. She has coached her son's Little League team in Davis, California for 5 years. During this time, Teresa has watched many coaches yell at batters to watch the ball as they strike out time after time. She has also seen many talented players with great mechanics drop out of baseball because they are poor hitters. In April of 2004, as Dr. Jacob Liberman was demonstrating the E.Y.E. Training System (www.exerciseyoureyes.com) at a conference in San Francisco, she had an insight that the E.Y.E. might help children become better batters by improving their visual skills. She conducted this study as a result of that inspiration. Teresa offers vision training using the E.Y.E. to sports teams and individuals. For a complete copy of the study you may contact her at 530-757-6463, tbowen@sbcglobal.net, or visit her website at www.thebotree.com/naturalvision.html.