

**PUBLISHED STUDY FINDS ADVANCED VISION TESTING SYSTEM HIGHLY EFFECTIVE IN  
DETECTING DEFICITS IN PRE-VERBAL CHILDREN**

Clinical results of a new pediatric vision test, the Enfant™ Pediatric Vision Testing System, show a 97 percent sensitivity in detecting vision deficits in children as young as six months of age, according to a study published in the December 2004 issue (Volume 8, Number 6) of the Journal of the American Association for Pediatric Ophthalmology and Strabismus (AAPOS).

The Enfant, a non-invasive, child-friendly, medical device that tests for visual deficits using Visual Evoked Potential (VEP) technology, records the brain's response to light and can detect vision problems, such as amblyopia, early in a child's life when these conditions are correctable.

According to John W. Simon, M.D., chief of pediatric ophthalmology at the Lions Eye Institute of Albany Medical Center, one of the five medical sites that participated in the Enfant Phase IV clinical trials now published said, "The device measures the health of the circuitry of the nerves (visual pathways) that send signals to the brain. The Enfant provides a series of sweeps of each eye and utilizes synchronized data collection to provide quick, objective analyses of the child's eyes to determine if there are any irregularities."

Each year, approximately 200,000 children in the United States are born with visual deficits, making this condition more common than other pediatric health issues. Dr. Simon stresses that early detection leads to better treatment, so a device like the Enfant, that accurately tests pre-verbal children, is a major step forward in improving children's vision health.

**SIDEBAR: JOURNAL OF AAPOS STUDY ABSTRACT Introduction:** With a prevalence of 3-5%, amblyopia represents a major public health problem. Effective treatment depends on early detection, and a broad consensus of professional opinion supports vision screening of infants and young children. No single method of screening has been demonstrated to be superior in detecting amblyopia and all methods have significant limitations. **Methods:** We assessed a new, "child-friendly" visual evoked potential (VEP) system (ENFANT(TM) II, Diopsys Corp., Pine Brook, NJ) for use in screening. We studied 122 children, aged 6 months to 5 years, comparing test results in a masked fashion to results of standard ophthalmologic examinations. A statistical program analyzed VEP differences between fellow eyes to determine a "pass" or "fail" for each child. For verbal patients, clinical amblyopia was defined as an interocular difference of two or more lines in best-corrected visual acuity. For preverbal patients, clinical amblyopia was defined by the clinician's decision to treat with occlusion or atropine penalization. Preverbal children with significant refractive errors or structural eye pathology were also considered clinically abnormal. **Results:** The test was completed by 94% of the study group, each child requiring an average of 10 minutes to complete testing of both eyes. The sensitivity was 0.973, the specificity 0.808, the positive predictive value 0.706, and the negative predictive value 0.984. **Conclusion:** With its easy electrode placement and rapid, attractive stimulus, the new system overcomes technical difficulties, which were associated with older VEP techniques. The test shows promise as a screening tool for detecting amblyopia and other visual deficits in young children.

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