

# Test allows early detection of vision problems in infants with hemangiomas of eyelids

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In children with vascular birthmarks around the eye, even partial blockage of vision can lead to visual loss due to amblyopia. Now a simple test can detect early evidence of amblyopia in infants too young for conventional vision testing, reports a study in the April issue of the *American Journal of Ophthalmology* published by Elsevier.

Led by Dr. William V. Good of Smith-Kettlewell Eye Research Institute, San Francisco, the researchers performed the early [vision](#) test in four infants with vascular birthmarks, or hemangiomas, on the upper or lower eyelids. These birthmarks generally resolve over time without treatment. However, if they are blocking part of the field of vision in the affected eye, they can lead to permanent reductions in vision, called amblyopia.

The test, called "sweep visual evoked potential vernier acuity," works by monitoring brain responses to changes in the alignment of two lines. None of the four infants had had any clinical evidence of amblyopia.

However, the vernier acuity measurements identified early visual abnormalities in the eyes with birthmarks. Brainwave responses to the shifting lines were significantly reduced in the eyes affected by hemangiomas, compared to the fellow eyes.

Vascular birthmarks occurring in the area around the eye have the potential to cause significant [vision loss](#) before the abnormality resolves, or before the child is old enough for conventional vision testing. Dr. Good commented, "Many congenital ocular or eyelid abnormalities

present physicians with a management conundrum: Is treatment for potential amblyopia necessary?"

The new results show that vernier visual acuity measurements are a promising tool for early detection of "amblyopia-like effects" in children with eyelid hemangiomas, who can then be targeted for treatment. "This study has implications for the management of children with intermittent [occlusion](#), who may develop amblyopia even when the clinical assessment is negative," added Dr. Good. "It is likely that these findings extend to other eyelid problems, including congenital ptosis [drooping eyelid], where amblyopia may be present even in the absence of clinical features for amblyopia."

More information: <http://www.elsevier.com/locate/ajo>

Source: Elsevier

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