



American Optometric Association

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**New Hand-Held 3D Gaming Devices May Help Uncover Undiagnosed Vision Problems**  
*American Optometric Association Advises Moderation in Use, No Evidence Yet of Harmful Effects*

St. Louis, January 5, 2011 -- The American Optometric Association (AOA), representing America's family eye doctors (optometrists), says 3D in movies, TV and even 3D on Nintendo's 3DS isn't necessarily bad for adults or children. In fact, optometrists, professional health care providers committed to children's vision and eye health, say 3D viewing may actually help uncover subtle disorders that, left uncorrected, often result in learning difficulties.

In this context, it is not enough to have 20/20 visual acuity. Eye muscles must be coordinated well enough to experience single, clear and comfortable vision by maintaining alignment of both eyes. The brain must also match appropriate accommodative or focusing power with where the eyes are aimed. Often, subtle problems with these vision skills can lead to rapid fatigue of the eyes and loss of 3D viewing, but also loss of place when reading or copying, reduced reading comprehension, poor grades and increased frustration at school. Difficulties with appreciating 3D in movies, TV and Nintendo's 3DS, or discomfort when engaging in these activities may be an important sign of undetected vision disorders. Parents should be aware that current vision screening technologies employed in schools and pediatricians' offices cannot substitute for comprehensive eye exams that detect and treat these problems.

Nintendo has issued a warning that children under 6 should not use the 3DS in 3D mode. While studies on the effects of prolonged 3D viewing on young children remain to be done, leaning toward the side of caution is advisable in guiding children to use these devices in moderation. Since vision develops from birth, it is crucial to uncover the type of vision disorders that may interfere with Nintendo 3D viewing at an early age. Although success can be attained in treating conditions such as amblyopia (lazy eye) and strabismus (eye turn) beyond age 6, the outcome is always better when children are treated as soon as signs of these problems are detected. Accordingly, children younger than 6 can use the 3DS in 3D mode if their visual system is developing normally.

The AOA and the American Public Health Association (APHA) both encourage a regular comprehensive eye examination schedule so that all children have eye exams performed at approximately age 6-12 months, 2-3 years, and by 5 years of age.<sup>1</sup> Although recommended, the Centers for Disease Control and Prevention (CDC) reports that less than 15% of all preschool children receive a comprehensive eye exam.<sup>2</sup> If children experience the "3Ds of 3D viewing"—discomfort, dizziness, or lack of depth—it is crucial to have a comprehensive eye examination by a doctor of optometry.

<sup>1</sup> <http://www.apha.org/advocacy/policy/policysearch/default.htm?id=240>

<sup>2</sup> [http://www.cdc.gov/visionhealth/publications/vhi\\_report.htm](http://www.cdc.gov/visionhealth/publications/vhi_report.htm)

About the AOA:

*The American Optometric Association represents approximately 36,000 doctors of optometry, optometry students and paraoptometric assistants and technicians. Optometrists serve patients in nearly 6,500 communities across the country, and in 3,500 of those communities are the only eye doctors. Doctors of optometry provide two-thirds of all primary eye care in the United States.*

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