

# New study shows link between ADHD and vision impairment in children

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Dawn DeCarlo is part of a new study that shows a link between noncorrectable vision problems and ADHD in children.

Attention deficit/hyperactivity disorder is one of the most frequently encountered neurodevelopmental disorders of childhood, and a new study from researchers at the University of Alabama at Birmingham recently published in *Optometry and Vision Science* shows a relationship between ADHD and vision impairments in children.

Results from a large survey of 75,000 children suggest an increased risk of ADHD among children with [vision](#) problems that are not correctable with glasses or contacts relative to other children with 15.6 percent of children with vision impairment also having an ADHD diagnosis, compared with 8.3 percent of children with normal vision. These types of vision problems could range from color vision deficiency to a lazy eye but would also include children with vision impairment. The study included children ages 4 to 17 enrolled in the National Survey of Children's Health.

This finding suggests that children with vision impairment should be monitored for signs and symptoms of ADHD so that if present, this dual impairment of vision and attention can best be addressed.

Director of the UAB Center for Low Vision Rehabilitation, Dawn DeCarlo, O.D., was the lead investigator on the study. She says just because vision problems that are not correctable with glasses or contacts are associated with ADHD that does not mean that one causes the other.







## Vision problems and ADHD


According to new UAB research, the prevalence of ADHD is higher in children with **vision problems not correctable with glasses or contacts**. The study included more than 75,000 children ages 4 to 17 years with data from the National Survey of Children's Health.

**15.6 percent** of children with vision problems also had an ADHD diagnosis, compared with **8.3 percent** of children with normal vision.

Children with **vision problems** should be **monitored for signs and symptoms of ADHD**, the researchers say.

 <p><b>Symptom: INATTENTION</b></p> <p><b>Signs:</b></p> <ul style="list-style-type: none"> <li>• difficulty paying attention, daydreaming</li> <li>• does not seem to listen</li> <li>• easily distracted</li> <li>• makes careless mistakes</li> <li>• often forgets things</li> </ul>	 <p><b>Symptom: HYPERACTIVITY</b></p> <p><b>Signs:</b></p> <ul style="list-style-type: none"> <li>• in constant motion</li> <li>• cannot stay seated</li> <li>• frequently squirms and fidgets</li> <li>• talks too much</li> </ul>
 <p><b>Symptom: IMPULSIVITY</b></p> <p><b>Signs:</b></p> <ul style="list-style-type: none"> <li>• acts and speaks without thinking</li> <li>• has trouble taking turns</li> <li>• cannot wait for things</li> <li>• calls out answers before the question is complete</li> <li>• frequently interrupts others</li> </ul>	 <p>If your child has shown symptoms of <b>ADHD</b> on a regular basis for more than <b>6 months</b>, discuss this with your pediatrician.</p>

Source: American Academy of Pediatrics


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The national study was produced in response to patients of DeCarlo exhibiting vision impairment and ADHD. A previous paper reported an increased prevalence of ADHD among the children in her vision rehabilitation clinic.

"Because we do not know if the relationship is causal, we have no recommendations for prevention," DeCarlo said. "I think it is more important that parents realize that children with vision problems may also have attention problems and that both require professional diagnosis and treatment."

So if your child has vision problems, should you be worried about them developing ADHD?

"I wouldn't worry about them developing ADHD," DeCarlo said. "But if they seemed to have symptoms of ADHD I'd make sure that all of their vision needs are addressed through proper eye care and vision rehabilitation and would have them evaluated by an expert in attention disorders."

**More information:** Dawn K. DeCarlo et al. Prevalence of attention-deficit/hyperactivity disorder among children with vision impairment, *Journal of American Association for Pediatric Ophthalmology and Strabismus* (2014). DOI: [10.1016/j.jaapos.2013.10.013](https://doi.org/10.1016/j.jaapos.2013.10.013)

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