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**Are gestational age at birth and symptoms of ADHD associated?**

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**Bottom Line:** Early premature birth at less than 34 weeks was associated with symptoms of attention-deficit/hyperactivity disorder (ADHD) in preschool-age children and inattention symptoms in school-age children.

**Why The Research Is Interesting:** Prior research suggests an association between prematurity and ADHD but it's uncertain the extent to which that might be explained by genetic and environmental risk factors. This study, which investigated the association between gestational age at birth and symptoms of ADHD in preschool and school-age children, used sibling comparison to account for unmeasured genetic and environmental risk factors.

**Who and When**: 113,227 children, including 33,081 siblings

**What (Study Measures and Outcomes)**: Children and siblings in different gestational age groups: early preterm (delivery at 22-33 weeks), late preterm (delivery at 34-36 weeks), early term (delivery at 37-38 weeks), deliver at week 39, a reference group (for comparison) with delivery at week 40, delivery at week 41, and late term (delivery after week 41) (exposures); ADHD symptoms in children at age 5 reported by mothers and symptoms of inattention and hyperactivity/impulsivity at age 8 (outcomes)

**How (Study Design)**: This was an observational study. Researchers were not intervening for purposes of the study and cannot control all the natural differences that could explain the study findings.

**Authors:** Helga Ask, Ph.D., of the Norwegian Institute of Public Health, Oslo, Norway, and coauthors

**Results:** Early premature birth was associated with increased risk of symptoms of ADHD in children at age 5 and symptoms of inattention at age 8, with the association at preschool age most pronounced among girls.

**Study Limitations:** Participation rate, attrition, and maternal reports of ADHD symptoms are among the limitations

**To Learn More:** The full study is available on the For The Media [website](https://media.jamanetwork.com/).

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