

# Low birth weight may lead to poor growth rate in children with kidney disease

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The lower the birth weight, the greater the chance of poor growth rate in children with chronic kidney disease (CKD), according to a new study appearing in an upcoming issue of the *Clinical Journal of the American Society of Nephrology (CJASN)*.

In the general population, [low birth weight](#) is not an important cause of poor growth and short stature. To determine whether low birth weight is a risk factor for poor growth in children with CKD, Larry Greenbaum, MD, PhD (Emory University and Children's Healthcare of Atlanta, Atlanta, GA) and his colleagues analyzed results from the [Chronic Kidney Disease](#) in Children Prospective Cohort (CKiD) study. Study participants included 426 out of the 586 children enrolled in the CKiD study, all of whom had mild to moderate CKD and were in 48 pediatric nephrology centers across North America.

"This is the first study showing an association between low birth weight and poor growth in children with CKD," explains Dr. Greenbaum. "The study also demonstrates that children with CKD are more likely to be born with low birth weight than the general population. This occurs in children who are born with kidney disease and those who acquire kidney disease during childhood. It is possible that low birth weight is a risk factor for the development of kidney disease during childhood."

Limitations: This study shows an association between low birth weight and poor growth in children with CKD but does not prove that the low birth weight causes poor growth. The study also does not indicate why

low birth weight may lead to poor growth in children with CKD.

Take-away message: Additional research is needed to determine if being born small increases the risk of developing kidney disease during childhood. Previous research has shown that adults who were smaller at birth were more likely to have kidney disease.

**More information:** The article, entitled "The Association between Abnormal Birth History and Growth in Children with CKD," will appear online on October 28, 2010, [doi:10.2215/CJN.08481109](https://doi.org/10.2215/CJN.08481109)

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