

Certain factors affect vitamin D levels in children with chronic kidney disease

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Researchers have identified certain modifiable and non-modifiable factors associated with vitamin D deficiency in children with chronic kidney disease (CKD). The findings, which appear in an upcoming issue of the *Clinical Journal of the American Society of Nephrology (CJASN)*, could help physicians protect the health of these young patients.

Vitamin D deficiency is common in children with chronic [kidney disease](#) (CKD). In an attempt to understand why, a team led by Anke Doyon, MD and Franz Schaefer, MD (University of Heidelberg, Germany) looked at how various factors relate to [vitamin](#) D levels in 500 children with CKD who were residing in 12 European countries.

Among the major findings:

- Two-thirds of the patients were classified as vitamin D deficient.
- Patients who took vitamin D supplements had vitamin D levels that were 2 times higher than those who did not take supplements, and they had a lower prevalence of vitamin D deficiency.
- Vitamin D levels were lower for certain kidney abnormalities, such as glomerulopathies
- Vitamin D levels were lower in winter months than at other times of the year.
- Certain genetic variants were also associated with vitamin D levels, but to a lesser extent than disease-associated factors and vitamin D supplementation.

"Vitamin D levels are influenced more strongly by seasonal factors, the type of disease and nutritional supplementation than by common variants in vitamin D regulating genes," said Dr. Doyon. "Supplementation practices should be reconsidered and intervention studies are needed to define guidelines how to monitor and treat vitamin D deficiency in children with [chronic kidney disease](#)."

More information: "Genetic, Environmental and Disease-Associated Correlates of Vitamin D Status in Children with CKD," *CJASN*, June 16, 2016, [DOI: 10.2215/CJN.10210915](https://doi.org/10.2215/CJN.10210915)

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