

# First pediatric study to look at the role of vitamin D in critical illness

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Vitamin D is increasingly being recognized as important for good health. Vitamin D is a hormone made in the skin following sun exposure or acquired from diet and supplement intake. Previous medical research has shown that low body levels of vitamin D make people more susceptible to problems such as bone fractures, poor mental health and infections like the common cold. Until recently, there had been little consideration given to the role of vitamin D in more severe diseases, which is why Dr. Dayre McNally's recent publication in the esteemed scientific journal *Pediatrics* is so compelling.

"This is the first study to report on [vitamin D](#) levels in a large group of critically ill children," said Dr. McNally, a clinical researcher and intensivist at the Children's Hospital of Eastern Ontario (CHEO) and assistant professor in the Department of Pediatrics at the University of Ottawa.

The study, led by Dr. McNally at the CHEO Research Institute, included over 300 children and teenagers at six hospitals in Ottawa, Toronto, Hamilton, Edmonton, Saskatoon and Vancouver. These children were admitted to an [Intensive Care Unit](#) (ICU) with severe infections, significant trauma or conditions requiring major surgery, such as [congenital heart defects](#).

Their study found that in three of every four critically ill children, blood vitamin D levels were below the target considered safe by many experts and medical societies. Further, those with lower vitamin D levels were

noted to be sicker, requiring more life-sustaining therapies (breathing tubes, medications to support [heart function](#)) and staying in the ICU for longer periods of time.

"Although these findings are of concern, we are very encouraged because we've discovered something that is modifiable," explained Dr. McNally. "There are simple ways to prevent this problem, and it may be possible to rapidly restore vitamin D levels at the time of severe illness."

**More information:** [pediatrics.aappublications.org ...  
ntent/130/3/429.full](http://pediatrics.aappublications.org/content/130/3/429.full)

Provided by Children's Hospital of Eastern Ontario Research Institute

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