

COVID-19: Patients with malnutrition may be more likely to have severe outcomes

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Adults and children with COVID-19 who have a history of malnutrition may have an increased likelihood of death and the need for mechanical ventilation, according to a study published in *Scientific Reports*.

Malnutrition hampers the proper functioning of the immune system and is known to increase the risk of severe infections for other viruses, but the potential long-term effects of [malnutrition](#) on COVID-19 outcomes are less clear.

Louis Ehwerhemuepha and colleagues investigated associations between malnutrition diagnoses and subsequent COVID-19 severity, using [medical records](#) for 8,604 [children](#) and 94,495 adults (older than 18 years) who were hospitalized with COVID-19 in the United States between March and June 2020. Patients with a [diagnosis](#) of malnutrition between 2015 and 2019 were compared to patients without.

Of 520 (6%) children with severe COVID-19, 39 (7.5%) had a previous diagnosis of malnutrition, compared to 125 (1.5%) of 7,959 (98.45%) children with mild COVID-19. Of 11,423 (11%) adults with severe COVID-19, 453 (4%) had a previous diagnosis of malnutrition, compared to 1,557 (1.8%) of 81,515 (98.13%) adults with mild COVID-19.

Children older than five and adults aged 18 to 78 years with previous diagnoses of malnutrition were found to have higher odds of severe COVID-19 than those with no history of malnutrition in the same age groups. Children younger than five and adults aged 79 or above were found to have higher odds of severe COVID-19 if they were not malnourished compared to those of the same age who were malnourished. In children, this may be due to having less medical data for those under five, according to the authors. The risk of severe COVID-19 in [adults](#) with and without malnutrition continued to rise with age above 79 years.

The authors suggest that public health interventions for those at highest risk of malnutrition may help mitigate the higher likelihood of severe COVID-19 in this group.

More information: Long term effects of malnutrition on severity of COVID 19, *Scientific Reports* (2021). [DOI: 10.1038/s41598-021-94138-z](https://doi.org/10.1038/s41598-021-94138-z) , www.nature.com/articles/s41598-021-94138-z

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