

# COVID-19 RESEARCH NEWSLETTER

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## Immune boosting role of vitamins D, C, E, zinc, selenium and omega-3 fatty acids: could they help against COVID-19?

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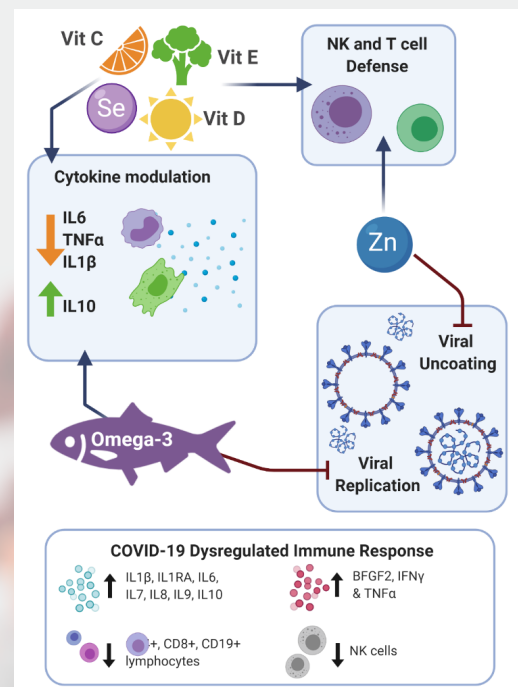
<https://doi.org/10.1016/j.maturitas.2020.08.003>

The COVID-19 pandemic has been the focus of an intense effort globally as researchers and clinicians attempt to find effective means to combat the disease. The lack of effective treatments or preventative strategies has directed the attention to the possible role of dietary components in the disease. Preliminary evidences suggest there might be some benefits of the supplementation of vitamins D, C and E, zinc, selenium and omega-3 fatty acids in COVID-19 patients.

A group of researchers from the Department of Food, Nutrition and Science at UAEU and international collaborators sought to explore the published literature on these nutrients in order to identify whether there is a likely benefit to their use in these patients. In total, 39 studies were identified, with the majority focusing on vitamin D. Vitamin D deficiency has repeatedly appeared to correlate with poorer COVID-19 outcomes, however no mechanistic evidence has been described as to how this may be occurring. High-dose vitamin C has also been suggested in a number of studies to improve symptom severity and reduce mortality, however more evidences are required to support this. The evidences surrounding zinc, selenium and omega-3 are even more limited, with mostly expert opinion pieces to support their use. The authors identified a large number of registered clinical studies currently investigating the use of these nutrients in COVID-19 patients, raising hope that stronger evidences will soon be available.

While evidence for the use of these nutrients might be lacking at present, given the well-known negative consequences of deficiency in both healthy and ill patients, the authors recommend effective identification of deficiency and appropriate dietary and supplementation interventions in these patients.

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