

**Effect of Vitamin D, Zinc And Copper Supplements To Enhance Treatment Of Covid-19 Patients**

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Abstract

The 2019 Coronavirus disease caused by the severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) is one of the greatest global health challenges of recent times. To date, no known vaccine has been approved for its prevention and therapeutic interventions involve supportive care. Current preventive measures involve physical distancing, the use of face mask, regular hand washing, or the use of alcohol-based sanitizers. Several previous studies have reported potential antiviral properties of Vitamin D, Zinc, and Copper. Supplementation of these immunomodulators has the potentials to enhance the innate and adaptive immune response in immunocompromised and critically ill patients by the restoration of the depleted immune cell functioning or improvement in normal immune cell functions. Vitamin D administration protected against acute lung injury. Zinc is effective against hepatitis C viral replication and exposure to copper resulted in the loss of coronavirus 229E viral genome. In this review, we present evidence for the potential benefits of Vitamin D, Zinc, and Copper supplementation which may assist critically ill COVID-19 patients. **KEYWORDS:** Coronavirus, COVID-19, Innate Immunity, Adaptive Immunity, Supplements

Conclusion: The current global COVID-19 pandemic has ravaged global health and economy with no approved vaccines for its prevention. The effect of individual immunity as a protective shield against the contraction of the virus cannot be overemphasized. For immunosuppressed patients and the elderly, food supplements and micronutrients with proven antiviral property could be helpful as immunity enhancers against COVID-19. It is therefore important to determine the serum concentration of these micronutrients and vitamin before supplementation. Health authorities should follow the recommended daily allowance of these nutrients which are applicable in their territories since these daily allowances vary from country to country.