

# MECHANISMS IN ENDOCRINOLOGY: Vitamin D and COVID-19

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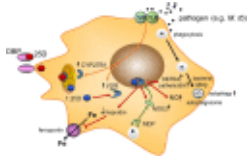
## Abstract

The SARS-CoV-2 virus responsible for the COVID-19 pandemic has generated an explosion of interest both in the mechanisms of infection leading to dissemination and expression of this disease, and in potential risk factors that may have a mechanistic basis for disease propagation or control. Vitamin D has emerged as a factor that may be involved in these two areas. The focus of this article is to apply our current understanding of vitamin D as a facilitator of immunocompetence both with regard to innate and adaptive immunity and to consider how this may relate to COVID-19 disease. There are also intriguing potential links to vitamin D as a factor in the cytokine storm that portends some of the most serious consequences of SARS-CoV-2 infection, such as the acute respiratory distress syndrome. Moreover, cardiac and coagulopathic features of COVID-19 disease deserve attention as they may also be related to vitamin D. Finally, we review the current clinical data associating vitamin D with SARS-CoV-2 infection, a putative clinical link that at this time must still be considered hypothetical.

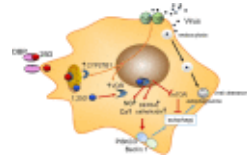
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## Figures

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**Figure 1** Antimicrobial actions of vitamin D...



**Figure 2** Autophagy and antiviral actions of...



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