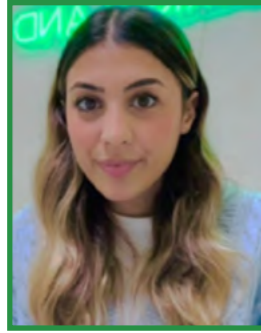


# Vitamin D and COVID-19: The Irrefutable Link



**Rita Younes**  
Chief Dietitian  
Saint Georges Hospital University  
Medical Center



**Caroline Mohamad**  
Licensed Dietitian  
NourishlandClinic  
NDU

Vitamin D is a fat soluble vitamin, vital for the optimal function of many human body systems and is responsible for the increasing intestinal absorption of calcium, magnesium and phosphate.

Vitamin D deficiency is on the rise worldwide and its prevalence depends on the various methods of measurement and the conflicting cutoff points used to define it. Hypovitaminosis D can be attributed to decreased dietary intake, limited sun exposure, decreased endogenous synthesis, and end organ resistance to vitamin D. In addition, many risk factors for vitamin D deficiency exist, such as obesity, race, hereditary, medications,



impaired intestinal absorption, pregnancy and lactation, dark skin, limited oral intake, and many more.

The Endocrine Society acknowledges a vitamin D deficiency for values < 20 ng/mL (< 50 nmol/L), an Insufficiency for values between 21 and 29 ng/mL (51–74 nmol/L) and a sufficiency for values ranging from 30 to 100 ng/ml (75–250 nmol/L).

During the covid-19 pandemic, many studies have assessed the relation between vitamin D deficiency and the severity of the COVID-19 viral infection and results have shown that vitamin D deficiency can be associated with an increased in COVID-19 severity, especially in the elderly, due to lower exposure to sunlight, lower 7-dehydrocholesterol concentration in the skin, and the occurrence of chronic diseases. High COVID-19 mortality rates have been reported in those older than 65 years and studies have shown that patients with severe COVID-19 tend to have inadequate vitamin D levels. Vitamin D concentration is inversely associated with pro-inflammatory cytokines such as IL-6, CRP, increased risk of acute respiratory distress syndrome and cardiac insufficiency. Thus, vitamin D is related to controlling the progression of COVID-19 and the prevalence of mortality due to the infection.

In addition, studies have reported that Vitamin D supplementation has been shown to be safe and effective against acute respiratory tract infections, thus people who are at higher risk for vitamin D deficiency during the covid-19 pandemic should consider supplementing with vitamin D to maintain normal levels.

Finally, people at higher risk of vitamin D deficiency should consider taking vitamin D supplements to maintain the circulating 25(OH)D in the optimal levels (30–100 ng/ml), also, getting enough sun exposure is vital- while respecting sun exposure recommendations- as well as maintaining adequate nutrition rich in proteins, polyunsaturated fats, vitamins B6, B12, C, D, E, folate and the minerals zinc, copper, and selenium.



We do Kitchens Differently



Hygiene is our responsibility and we never stop getting better"



Hot & Cold Tray Delivery System

