

# Study reveals potential immune benefits of vitamin D supplements in healthy individuals

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Research from Boston University School of Medicine (BUSM) shows that improving vitamin D status by increasing its level in the blood could have a number of non-skeletal health benefits. The study, published online in *PLOS ONE*, reveals for the first time that improvement in the vitamin D status of healthy adults significantly impacts genes involved with a number of biologic pathways associated with cancer, cardiovascular disease (CVD), infectious diseases and autoimmune diseases. While previous studies have shown that vitamin D deficiency is associated with an increased risk for the aforementioned diseases, these results go a step further and provide direct evidence that improvement in vitamin D status plays a large role in improving immunity and lowering the risk for many diseases.

Vitamin D is unique in that it can be both ingested and synthesized by the body with [sun exposure](#). It is then converted by both the liver and kidneys to a form that the body can use. An individuals' level of vitamin D, or their vitamin D status, is determined by measuring the level of 25-hydroxyvitamin D in the blood. [Vitamin D deficiency](#), which is defined as a status of less than 20 [nanograms](#) per milliliter (ng/mL) of 25-hydroxyvitamin D, can cause a number of health issues, including rickets and other musculoskeletal diseases. Recently, however, data suggests that vitamin D deficiency (

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