

Written by Dentistry Today

According to researchers, the immune system's T cells rely on vitamin D to become active. These "killer" cells remain dormant and unable to fight pathogens if vitamin D is lacking in the blood. Dr. Carsten Geisler of the Copenhagen University's Department of International Health, Immunology and Microbiology, stated that, "When a T cell is exposed to a foreign pathogen, it extends a signaling device or antennaknown as a vitamin D receptor, with which it searches for vitamin D. This means the T cell must have vitamin D or activation of the cell will cease. If the T cells cannot find enough vitamin D in the blood, they won't even begin to mobilize." Dr. Geisler's team published their findings online March 7 in *Nature Immunology*. Although researchers have long known of the importance of vitamin D for calcium absorption, and the link between levels of vitamin D and diseases such as cancer and multiple sclerosis, until now they didn't know how vital vitamin D is for activating the immune system. Most vitamin D is derived from exposure to sunlight, but it is found in certain foods and can be taken as a supplement. Nearly half the world's population has suboptimal levels of vitamin D, and this problem is worsening because people spend more time indoors. This study offered much needed information about the immune system and would be of particular use when developing new vaccines. Although there are no definitive studies on the optimal daily vitamin D dose, experts recommend 25 to 50 mg.

(Source: *Reuters*, March 8, 2010; accessed via MDlinx.)