

Is low vitamin D linked to military suicide?

Posted on January 10, 2013 by John Cannell, MD

The authors studied 495 cases of suicide among active duty military personnel who had their blood drawn within 2 years of their suicide. They compared them to 495 matched cases controls.

[Umhau JC et al. Low Vitamin D Status and Suicide: A Case-Control Study of Active Duty Military Service Members. Plos One](#)

More than 30% of the soldiers had vitamin D levels lower than 20 ng/ml, even in the summer. When sampled in the winter, more than 60% of the soldiers had levels less than 20 ng/ml. They then grouped the soldiers in octiles; in other words, they divided the soldiers into 8 equal groups by grouping them according to vitamin D levels. **They found that soldiers with the lowest levels of vitamin D were twice as likely to complete suicide as were soldiers with higher levels.**

The authors made the following points in their paper:

- Sunlight may exert benefits over and above that of making vitamin D. For instance, sunlight is involved in melatonin physiology and melatonin can affect mood.
- Low vitamin D status has recently been connected with, low cognitive performance, psychotic-like symptoms, and depression.
- A depressive episode does not always precede suicide. The development of suicidal thoughts can be sudden and occur within 10 minutes of a suicide attempt. Impulsivity plays a major role in military suicides.
- Low serotonin occurs during the winter; and as most know, serotonin is popularly thought to be central to feelings of happiness. This fact may confound the relationship between vitamin D levels and risk of suicide.
- **→A recent study found the vitamin D levels of soldiers in basic training in South Carolina fell at the end of 8 weeks of basic training due to the heavy clothing worn by soldiers. ←**

Dr. Umhau and colleagues concluded,

“Studies are urgently needed to develop an appropriate strategy to insure that service members do not suffer the ill effects of a preventable deficiency of vitamin D.”

We agree but would add that the military should take immediate steps to treat vitamin D deficiency that is rampant among their soldiers.