

Title: Vitamin D deficiency and Depression

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Abstract: Many studies are currently looking at the relationship between vitamin D deficiency and depression, as well as other illnesses. This PET is designed to inform patients about the basics of vitamin D and explain its relationship to depression as it is known thus far.

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# VITAMIN D AND DEPRESSION



*A Patient education tool*

*University of Minnesota Primary Care Clerkship*

## **What is vitamin D?**

Vitamin D is actually a hormone. It is activated by the sun's rays. It helps your body to absorb Calcium and build strong bones. You can get vitamin D in your diet by eating such foods as fish, eggs, vitamin D milk, and cod liver oil.

## **How does it affect my health?**

The most well-known diseases that result from low levels of vitamin D are rickets and osteomalacia. Children get rickets, which results in skeletal deformities. Adults get osteomalacia, which results in muscular weakness in addition to weak bones. Right now, doctors are studying vitamin D and finding out that it may help prevent cancer, osteoporosis and even depression.

## **Who is at risk of vitamin D deficiency?**

The elderly, obese individuals, exclusively breastfed infants, and those who have limited sun exposure – like those who live in the Northern states of the USA – may be at risk for vitamin D deficiency.

Also, individuals who have fat malabsorption syndromes (e.g., cystic fibrosis) or inflammatory bowel disease (e.g., Crohn's disease) are at risk. If you have one of these conditions, talk to your doctor and see if you should have your vitamin D level measured or start vitamin D supplements.



*People who have darker skin and/or live in the Northern states of the USA may be at high risk for vitamin D deficiency because they don't get enough sun!*



### **I'm depressed. Could I have vitamin D deficiency?**

Studies show that people with depressive disorders sometimes have low vitamin D levels. Many more studies need to be done before we can say whether low vitamin D is actually part of the cause for depression. If you are depressed, talk to your doctor to see if you are at risk for low vitamin D and should have your vitamin D level measured.

### **I'm depressed. Should I take vitamin D supplements?**

A few studies have shown that people treated with high doses of vitamin D had less depressive symptoms than people who did not receive any vitamin D. Some of these people had normal vitamin D levels, but still benefited from taking high doses of vitamin D. Talk to your doctor about whether it is safe for you, and whether you might benefit from taking extra vitamin D.

#### **For more information regarding vitamin D:**

<http://dietary-supplements.info.nih.gov/factsheets/vitamind.asp>

<http://www.nlm.nih.gov/medlineplus/ency/article/002405.htm>

#### **For more information regarding the symptoms of depression:**

<http://www.nlm.nih.gov/medlineplus/ency/article/000945.htm>

<http://www.nimh.nih.gov/health/publications/depression/complete-index.shtml>