

Title: Vitamin D supplementation

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Abstract: Vitamin D supplementation is an inexpensive intervention that has many known benefits, including the maintenance of bone health. Given the current interest in the potential benefits of adequate vitamin D status, many patients are supplementing. A meta-analysis published in the *Archives of Internal Medicine* in 2007 indicates that vitamin D supplementation is not associated with adverse effects; in fact, there appears to be an associated decrease in all-cause mortality.

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Vitamin D Supplementation

Vitamin D performs many important roles in our bodies.

- Works with calcium to maintain strong bones
- May help the body use insulin properly
- May help decrease the growth of cells and blood vessels to protect against cancer
- May protect against high blood pressure
- May protect against autoimmune diseases

Sources of vitamin D

- The sun: humans make vitamin D when the skin is exposed to ultraviolet-B rays from the sun. People living in northern climates may not be in the sun enough to make adequate vitamin D.



- Foods such as fish and cod liver oil
- Also added to foods such as fortified milk and eggs
- Supplements: either D2 or D3 400-2000 IU. The current recommendations by the U.S.

Institute of Medicine of the National Academies are 2000 IU for all individuals under 50, 400 IU for individuals 50-70 years old, and 600 IU for those over 70. The Institute of Medicine is currently conducting a 24-month study on the adequacy and harmful effects of excess intake and will be relating their findings to chronic diseases. This consensus report should be available in summer 2010.

Safety: Vitamin D supplementation is considered safe when taken at the recommended dosages. Additionally, a large 2007 study indicated that vitamin D supplementation in the recommended dosages might be protective against death. Further research is needed to confirm these findings and to determine the underlying reasons for this.

For more information:

The U.S. Institute of Medicine of the National Academies: www.iom.edu

The Mayo Clinic:
www.mayoclinic.com/health/vitamin-d/NS_patient-vitamin-d