



## Metabolism Matters

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### Make your D an A+

#### Who should supplement with Vitamin D during the winter?

Last November my 8 month old daughter smiled as the leaves from the large sycamore in front of our home swirled around and into her stroller. Later in the month she stared out of the upstairs window with the despondent gaze of disbelief. No more leaves!

Leaves aren't the only thing that drifts down in a North American November. So do the vitamin D levels of its residents. Remember "D" the sunshine vitamin? When you get bright direct sunlight your body makes it in the skin and the body literally stores it up for a rainy day. In Maryland, at latitude 39 degrees, the body has to store D from November thru February, when the sun is not intense enough to jumpstart production.

Storing D is important since generally less than fifteen percent of our needs are met by food sources such as fortified milk and fish. Mushrooms are also a source of vitamin D. Perhaps this is how they created their grow-in-dark-places niche.

New research is showing that between food and sun, Americans are getting too little vitamin D. It's taking a toll on health. Or, said like an optimist, we can do something new for our health by getting enough vitamin D in winter. Vitamin D:

- Helps the gut take in enough calcium from the diet. This is the primary way vitamin D prevents osteoporosis.
- May help boost mood. Some of this ongoing work with vitamin D and mood came from clinical observations. Ladies being treated with prescription doses of vitamin D for osteoporosis found they no longer needed medication for seasonal affective disorder.
- Helps treat and prevent multiple sclerosis and some forms of cancers which are increasing common the further from the equator one lives.
- Improves sports performance. Russian swimmers showed impressive improvements in their race times when they used sun lamps in the 1950s.
- Helps the kidneys control blood pressure.
- Plays a role in weight control. Science is producing a cornucopia of research showing that to support a link between vitamin D drifting down and the scale drifting up. November is the month the most weight is gained across America. Before you say it's the upcoming holidays, keep in mind that in the southern hemisphere the most weight is gained in June.

These links between vitamin D and better health are interesting, but if we North Americans have flourished for hundreds of winters why should we start supplementing with vitamin D now? That's a question deserving of four answers:

- We actually did take vitamin D supplements for decades. Baby boomers were given a weekly spoonful of cod liver oil throughout winter. Most of them understandably vowed to not give their own children such queasy childhood memories.
  - Generations before us stored up more vitamin D in the summer months. They worked outside, walked to work, and didn't use sunscreen.
  - People were leaner and may therefore have needed less vitamin D. At first this statement sounds contradictory. If fat-soluble vitamin D is stored in body fat one might think that people with extra body fat have more vitamin D. What seems to happen instead is that vitamin D gets stuck in body fat. It stays there without getting fully activated by the liver and kidneys.
- Lastly, I'm not convinced earlier generations got optimal vitamin D. If I had to write a paper for an American History course, you could guess my thesis.

While a new consensus is being reached on vitamin D recommendations, I'll leave you with my approach. Any adult who is not traveling into summer or using artificial sources of ultraviolet light should mark the calendar: November 1, 2007 - February 29, 2008, take 1,000 international units of supplemental vitamin D daily. Supplement bottles are labeled 1,000 IU vitamin D3 (Cholecalciferol). Fish oil supplements and multivitamins may also contain vitamin D, so be sure to add up the vitamin D to take 1,000 IU total.

Children are likely to benefit from supplemental vitamin D in multivitamins and fish oil which is much improved from the cod liver oil once spooned out to baby-boomers. Brands with consistent high quality include Designs for Health, Perque, Nordic Naturals, and Metagenics.

People with any of the conditions mentioned above may want to ask their doctor for a vitamin D blood test. It's called 25-hydroxyvitamin D or 25(OH)D and should ideally range from 30 to 40 ng/ml. When you optimize your vitamin D, you might find as the French-Algerian author Albert Camus did, "*In the depth of winter, I finally learned that within me there lay an invincible summer.*"