

# The scoop on vitamin D



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**Q:** What are some key points I should know about using vitamin D supplements? Are they safe to take during pregnancy and lactation?

**A:** Vitamin D has enjoyed centre stage recently as the research continues mount about its health benefits. Increasingly, pediatricians and obstetricians are paying attention to this important vitamin.

The bottom line is that adults living north of the 37th parallel (which includes everyone living in Canada), and all children over one year of age should consider taking vitamin D<sub>3</sub> daily.

Most multivitamins do not have enough vitamin D<sub>3</sub>. In fact, the majority contain vitamin D<sub>2</sub>, which is one-third as effective as vitamin D<sub>3</sub>. It is wise to use a pure vitamin D<sub>3</sub> supplement. (For more information see [ddrops.ca](http://ddrops.ca).)

Although the ideal dose remains controversial, a safe starting point is 1,000 international units (IU). More research is needed before the next vitamin D supplement recommendations are made by organizations such as the Canadian Pediatric Society. Earlier this year, the Canadian Cancer Society came out with a position statement supporting the use of vitamin D to prevent certain kinds of cancer; Health Canada has yet to come out in agreement.

Here's a simple rule of thumb: go outside on a sunny day at noon and if your shadow is taller than you are, it's a great time to start with supplementation (usually from October to late April in Calgary)

During the summer months, we tend to get enough vitamin D from the sun. For Caucasians, only 10 to 15 minutes of sunshine on the arms or trunk is needed. After that, wear at least an SPF 15 sunscreen. People with darker skin need 20 to 25 minutes per day of sunshine.

Vitamin D helps with the absorption of calcium and phosphorous in the small bowel. In patients who are vitamin D deficient, calcium absorption is reduced to as low as 10 per cent.

An adequate reserve of vitamin D is important even while a baby is in utero. It has been speculated that if a baby is born vitamin D-deficient, it may be hard to ever catch up.

Breastfeeding remains the gold standard, but nursing infants need vitamin D supplements (400 IU per day). If the lactating mom takes enough vitamin D<sub>3</sub> — up to 2,000 IU per day — it may actually benefit the baby, too.

Foods which supply vitamin D include oily fish such as salmon, cod liver oil and milk or juice fortified with vitamin D. But the problem with food is that vitamin D levels are often inadequate and many people are inconsistent in their eating habits.

In fact, at the Boston Children's Hospital adolescent clinic, 25 per cent of adolescents were found to be vitamin D-deficient when randomly tested; in the same hospital, 32 per cent of medical students were vitamin D-deficient. Adolescents who have low levels of vitamin D may be more deficient later in life and are at risk of having a lower peak bone mass (60 per cent of bone mass is achieved during adolescence and failure to get enough vitamin D early in life may put patients at risk for weak bones, bone pain and more fractures later in life).

The effects of low vitamin D levels go beyond bone health. A deficiency may be associated with muscle weakness, an increased risk of developing Type 1 diabetes, a higher probability of getting certain cancers (prostate, colon and breast cancer), higher blood pressure, multiple sclerosis and possibly schizophrenia.

It has been shown that children who grew up at a latitude below Atlanta, Ga., for the first 10 years of life had a 50 per cent reduced risk of developing MS for the rest of their lives, no matter where they lived on the globe.

Obese patients are more prone to having vitamin D deficiencies. The same is true for patients with celiac disease, Crohn's, liver disease, kidney disease and those who take certain anticonvulsants.