



<p>What is Vitamin D?</p>	<p>Vitamin D is not a vitamin! Vitamins are organic compounds, needed in the diet in tiny amounts and cannot be manufactured by the body. Vitamin D is a hormone produced in the skin, not necessary in the diet and found in very few foods. It has a hormone like effect on all tissues of the body.</p>
<p>Who is Vitamin D deficient?</p>	<p>Most of us ... up to 80 to 90% of the US population are deficient ... even in the sunshine states!</p>
<p>What causes Vitamin D deficiency?</p>	<p>95% of your vitamin D comes from sunlight exposure. Your skin produces Vitamin D when the precursor molecule to cholesterol is struck by UVB light in the 290 to 315 range. Anything that blocks UVB prevents Vitamin D production. This includes clothing, sunscreen, skin pigmentation, clouds, glass, an indoor job, northern latitude, time of day and season. You may also be Vitamin D deficient because of statin drugs for cholesterol (you need cholesterol to make Vitamin D), a bowel disorder that inhibits Vitamin D absorption or obesity. (Vitamin D is fat soluble and stays in the fat).</p>
<p>What does Vitamin D do?</p>	<p>Vitamin D regulates bone metabolism, calcium absorption, gene expression, cell replication, differentiation and death, the latter 3 important in cancer prevention. Every cell in your body responds to vitamin D receptors thus its effects over a wide range of diseases.</p>
<p>What diseases or symptoms does Vitamin D deficiency cause?</p>	<p>Vitamin D deficiency is strongly proven to cause rickets, osteoporosis, osteopenia and osteomalacia (bone and body pains). It is suspected in multiple sclerosis, rheumatoid arthritis, many cancers, depression, autism, falls, heart disease including congestive heart failure, type 1 diabetes, high blood pressure, fibromyalgia, chronic fatigue syndrome, parkinsonism, bacterial vaginosis, C-sections, chronic headaches, chronic back pain, osteoarthritis, allergies, eczema, ALS, melanoma, psoriasis and gum disease. High vitamin D levels boost your immune system and protect you against colds and flu.</p>
<p>How do I know if I am Vitamin D deficient?</p>	<p>If you don't have a tan, you are probably Vitamin D deficient, otherwise you need a blood level. For insurance to pay for this expensive test, you need a suitable diagnosis such as osteoporosis or a fracture.</p>
<p>How should I get my Vitamin D?</p>	<p>Sensible sun exposure leading to a tan but not a burn is best. Other wise take a Vitamin D supplement.</p>
<p>How much Vitamin D should I take?</p>	<p>Ideally have your blood level tested first. Take 100 IU to raise your level by 1 ng/ml. For most people 2,000 to 5,000 IU per day is about right. Some people take 50,000 IU every other week and this is fine.</p>



<p>What foods have Vitamin D?</p>	<p>Vitamin D occurs naturally in only a few foods with the highest concentrations in cod liver oil and raw herring. (Yum!) You also get Vitamin D in fatty, oily fish like sardines, tuna, mackerel and wild salmon. There are lesser amounts in sun dried mushrooms, beef liver and egg yolks. Vitamin D is added artificially to dairy products, orange juice and breakfast cereals.</p>
<p>What should my Vitamin D level be?</p>	<p>At the minimum it should be 32 ng/ml, but ideally between 40 and 60 ng/ml. Life guards with a deep summer tan and lots of sun exposure have levels of about 60. Levels up to 200 are considered safe but unnecessary.</p>
<p>My insurance won't pay for the Vitamin D blood test.</p>	<p>There is a home test at www.zrtlab.com/vitaminDcouncil. \$65 for one test and \$220 for 4 tests (\$55 each).</p>
<p>What brand of Vitamin D should I buy?</p>	<p>Look for D3 (cholecalciferol), not D2, in an oil-filled capsule. Vitamin D needs fat for absorption so take with some fatty food. Most brands should be OK.</p>
<p>Should I take any other supplements with Vitamin D?</p>	<p>Yes. Vitamin D requires zinc, magnesium, boron, and vitamin A to function. It is wise to also take vitamin K2 which offsets any potential arterial calcification.</p>
<p>Are there side effects?</p>	<p>Magnesium is used to convert Vitamin D to its active form. If you are magnesium deficient (as many people are), you might get magnesium deficiency symptoms ... headaches, muscle cramps, palpitations, anxiety, insomnia and constipation.</p>
<p>I know that Vitamin A can be toxic, so what is a toxic dose of Vitamin D?</p>	<p>It is hard to overdose on Vitamin D. You CANNOT overdose through sun exposure. The body automatically destroys excess Vitamin D produced by sunlight. You can safely take 10,000 IU per day forever with no problems. Studies only show problems with doses greater than 30,000 IU per day for extended periods. It's remarkably safe as children with rickets get 600,000 IU in one dose!</p>
<p>Who should not take Vitamin D?</p>	<p>Do not take vitamin D if you tan from regular sun exposure, your vitamin D level is naturally normal or you have a medical condition such as a high calcium level, sarcoidosis, or hyperparathyroidism. Not many reasons not to take it.</p>
<p>Where can I learn more?</p>	<ul style="list-style-type: none"> • Look for Dr. Michael Holick on Youtube or go to his website www.vitaminDhealth.org • Steven Gibson (a noted computer security expert) has excellent information (it's a pet interest of his) at www.grc.com/health/vitamin-d • Wiki - www.vitaminDwiki.com • The Vitamin D Council at www.vitaminDcouncil.org • Book - Vitamin D Prescription by Eric Madrid, MD • Book - The Healing Power of Sunlight and Vitamin D, an interview with Dr. Michael Holick, by Mike Adams. • GrassrootsHealth - www.grassrootshealth.net