

**On the Possible Link Between Vitamin D Deficiency and Cardiovascular Disease:
Should We D-Lighten Our Lives?**

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- 1) All humans migrated out from the equator, and all had black skin.
- 2) As humans migrated, "a progressive depigmentation took place." "Strong evolutionary forces in favor of less pigmentation must have been present in regions with low solar exposure."
- 3) "In regions with low sun ultraviolet (UV) radiation, less pigmented individuals would need less time in the sun to avoid vitamin D deficiency."
- 4) Higher levels of vitamin D probably helped avoid respiratory tract infections, tuberculosis, and influenza.
- 5) Women with less pigmented skin and more vitamin D may have had an evolutionary advantage of improved fertility, fewer miscarriages, or fewer pregnancy complications.
- 6) "Individuals with heart failure, hypertension, stroke, and other cardiovascular diseases (CVD) tend to have lower vitamin D levels."
- 7) Type-2 diabetes is more prevalent among people with low vitamin D levels.
- 8) Newborns who receive vitamin D supplementation have an 80% lower long-term risk of childhood or adolescent diabetes.
- 9) Swedish people who go on sunbathing vacations at least once a year for 3 decades have lower CVD and lower all-cause mortality.
- 10) Food, especially vegetarian and vegan food, is low in vitamin D content.
- 11) "The body produces the greatest amount of its vitamin D in the skin after exposure to UVB radiation from sunlight."
- 12) Short daily exposure to the sun is the best way to obtain robust levels of vitamin D, "but one must be careful to avoid sunburn."
- 13) Darker (pigmented) skin acts as a sun shield. Darker skinned individuals need more time in the sun to produce adequate levels of vitamin D.

- 14) Overweight individuals need more time in the sun to produce adequate levels of vitamin D than do lean people.
- 15) Sun protection cream hinders vitamin D production.
- 16) "A common misinterpretation of the current sun exposure guidelines is that, as long as you apply sun block, you can be out in the sun for a long time. This is probably the reason why using sun protection cream is an established risk factor for melanoma, because it results in people staying in the sun too long."
- 17) There is no scientific evidence that sun protection creams lower the risk of melanoma.
- 18) "Thromboembolic events occur more frequently among those who avoid sun exposure and that the risk is almost doubled during the winter season."
- 19) "Both sun avoidance and excessive sun exposure are extreme behaviors that threaten our health. "
- 20) People should either adopt active sun exposure habits or supplement with 2000–4000 IU of vitamin D daily.

COMMENTS FROM DAN MURPHY:

I agree with ***Article Review #38-11*** in vitamin D supplement dosing:

The loading dose of supplemental vitamin D3 should be about 20,000 IU/day for 3 – 6 months with a maintenance dose of 5,000 IU/day.

Sarcoidosis patients (and other granulomatous diseases) should not supplement with vitamin D because it increases granuloma production increasing the risk of hypercalcemia.