

## The Canadian Indoor Tanning Industry's Position On Vitamin D, UVB Exposure and Dietary Supplements

### SUMMARY

Vitamin D production is one of the benefits that has been associated with human exposure to ultraviolet-B (UVB) emitted in sunlight and by an estimated 90 percent of commercial indoor tanning equipment. While the North American indoor tanning industry conducts indoor tanning as a cosmetic service, an undeniable physiological side-effect of this service is that indoor tanning clients manufacture sufficient levels of vitamin D as a result of indoor tanning sessions<sup>1</sup>. Because there is mounting evidence that vitamin D deficiency is prevalent in Canadian society<sup>2</sup>, and because of Canada's northerly latitude which makes natural vitamin D production outdoors impossible six months of the year<sup>3</sup>, the benefit of this side-effect from cosmetic tanning deserves due consideration.

### DISCUSSION

The professional indoor tanning industry was first established in the 1970s in Northern Europe as a therapeutic exercise in light-deprived areas. The production of a suntan was initially considered a secondary side-effect.

The North American tanning market emerged years later in the 1980s as a cosmetic industry – well after therapeutic tanning first began in Europe. In contrast to its European roots, the North American tanning market has focused for years on the non-medical, cosmetic advantages of having a suntan. Nevertheless – whether marketed for this purpose or not – many North American tanning clients patronize professional tanning studios either primarily or secondarily to enjoy the health psychological and physiological benefits that have been or are strongly suspected to be associated with UV and vitamin D.

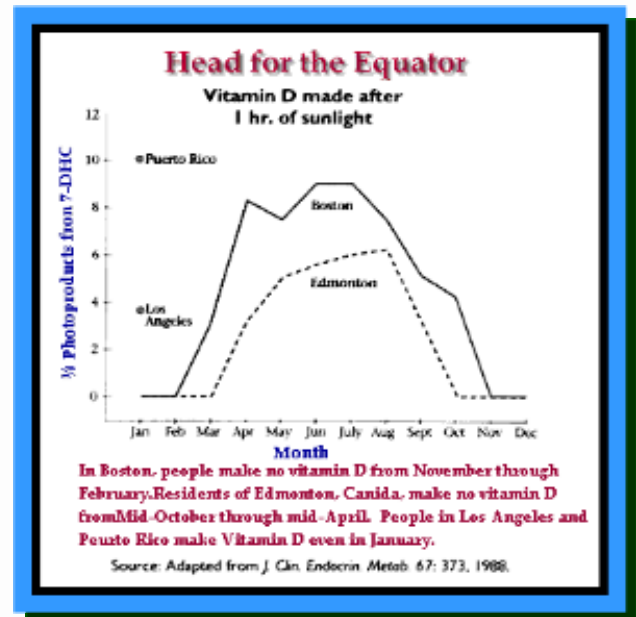
In recent years much has been written and discussed in the scientific community about the health benefits realized by individuals with sufficient vitamin D levels and the fact that vitamin D deficiency may in fact be a “silent epidemic” in North America today. Most notably, of 63 epidemiologic and observational studies that have ever examined the potential relationship between vitamin D sufficiency and a lower risk of colon, breast, ovarian and prostate cancers, a majority suggest a protective connection for vitamin D.<sup>4</sup>

<sup>1</sup> Vin Tangpricha, Adrian Turner, Catherine Spina, Sheila Decastro, Tai C Chen, and Michael F Holick. Tanning is associated with optimal vitamin D status (serum 25-hydroxyvitamin D concentration) and higher bone mineral density. *Am J Clin Nutr* 2004;80:1645-9

<sup>2</sup> Rucker D, Allan JA, Fick GH, Hanley DA. Vitamin D Insufficiency in a Population of Healthy Western Canadians. *Canadian Medical Association Journal*. June 11, 2002; 166 (12).

<sup>3</sup> “Head for the Equator” chart published originally by Dr. Erin Pammer, Clinical Nutritional Services at the Cheshire Medical Center, Dartmouth College. *Nutr News*. January 1998.

Further research into this connection needs to be a priority, as the potential upside is too strong to ignore. Further, it is imprudent for public health initiatives to ignore or deny the protective effects of vitamin D, produced naturally through exposure to UVB from sunlight.



### OUR POSITION

The Canadian indoor tanning industry's position on Vitamin D is as follows: The professional indoor tanning industry is in the business of providing cosmetic tans. However, tanning lamps that emit some UVB light – and most of them do – have been shown by peer-reviewed research to stimulate vitamin D production in the skin and elevate blood levels of vitamin D in the body. While it is not necessary to develop a tan to produce sufficient amounts of vitamin D, and while dietary supplements are an alternative, sun exposure is the body's natural way to produce vitamin D. The indoor tanning industry believes that, for those individuals who can develop tans, the cosmetic and vitamin D-related benefits of non-burning exposure to ultraviolet light in appropriate moderation outweigh the easily manageable risks associated with overexposure and sunburn.

<sup>4</sup> Garland CF, Garland FC, Gorham ED, Lipkin M, Newmark H, Mohr SB, Holick MF. The Role of Vitamin D in Cancer Prevention. *Am J Public Health*. 2006, Vol. 96. No. 2: 9-18.