



Considering the Seasons

Around 400 B.C., Hippocrates, the Greek physician widely regarded as the father of medicine, wrote, “Whoever wishes to investigate medicine properly should ... consider the seasons of the year.”¹

Winter, with its cold weather and shorter, gray days, is typically regarded as the season for sickness, namely flu season. Scientists have observed that volunteers who received a weakened influenza virus were more likely to develop fever and signs of fighting sickness in the winter.² While there have been assumptions in past decades of why this is the case, the theory that seasonally stimulated influenza could be due to the lack of solar radiation has now gained scientific support.

Psychiatrist John Cannell and colleagues believe that vitamin D, the hormone we make when exposed to sunshine, or a lack thereof, is the seasonal stimulus. In 2005 a flu epidemic ‘exploded’ in the Atascadero maximum-security facility where he was working. His patients were no different from those in other wards in ethnicity, psychotropic medication use, environment, or in exposure to the flu virus. But one significant difference did reveal itself. All of his 32 patients were taking high daily doses of vitamin D and not one of them contracted the flu.³

In his own words he explains, “A short while later, a group of scientists from UCLA published a remarkable paper in the prestigious journal, *Nature*. The UCLA group confirmed two other recent studies showing that a naturally occurring steroid hormone—a hormone most of us take for granted—was, in effect, a potent antibiotic. Instead of directly kill-

ing bacteria and viruses, the steroid hormone under question increases the body’s production of a remarkable class of proteins, called antimicrobial peptides. The 200 known antimicrobial peptides directly and rapidly destroy the cell walls of bacteria, fungi, and viruses, including the influenza virus, and play a key role in keeping the lungs free of infection. The steroid hormone that showed these remarkable antibiotic properties was plain old vitamin D.”⁴

So convinced is Cannell and his colleagues of vitamin D’s significance that in the February 2008 issue of *Virology Journal*, they approved that taking high doses of vitamin D (2000 IU per day) for three days may completely eliminate the incidence of flu and colds.⁵

Just as importantly as increasing the effectiveness of the immune system is modulating it. Activated vitamin D has been found to perform this crucial role. Not only does vitamin D increase the production of the antimicrobial peptides that destroy the influenza virus, but it also, simultaneously prevents the immune system from overreacting—releasing too many inflammatory cells into infected lung tissue. During the 1918 flu pandemic, 500,000 Americans died. After performing many autopsies, scientists discovered destroyed respiratory tracts, now understood to be the result of severe inflammatory reactions. “It was as if the flu victims had been attacked and killed by their own immune systems. This is the severe inflammatory reaction that vitamin D has recently been found to prevent.”⁶

Donald Miller, M.D., cardiac surgeon

and Professor of Surgery at the University of Washington, recommends taking vitamin D instead of the flu shot. He states, “Seventy percent of doctors do not get a flu shot.” There may be several reasons why he states this including the toxic ingredients in flu shots. “Two-thirds of the vaccines made for the 2008–09 flu season contain full-dose thimerosal, an organomercury compound, 49% mercury by weight. It is used to disinfect the vaccine. Each of these flu shots contain 25 micrograms of mercury, a mercury content of 50,000 part per billion, 250 times more than the Environmental Protection Agency’s safety limit. Mercury is a neurotoxin, with a toxicity level 1,000 times that of lead. Formaldehyde, a known cancer-causing agent is used to inactivate the virus. Aluminum, added to promote an antibody response, is a neurotoxin that may play a role in Alzheimer’s disease. Other additives in the flu vaccine include: Triton X-100 (a detergent), Polysorbate 80, carbolic acid, ethylene glycol (antifreeze), gelatin, various antibiotics such as neomycin, streptomycin, and gentamicin that can cause allergic reactions.”⁷

For those of us who do not live on or near the equator, winter means less sun exposure. For example, residents of Boston (42 °N), Edmonton, Canada (52 °N), and Bergen, Norway (61 °N) cannot produce sufficient quantities of vitamin D3 in their skin for 4, 5, and 6 months.⁸ When the sun does shine on winter days, its position in the sky causes much of its vitamin D producing UVB rays to be absorbed by the ozone.

The majority of Americans are vitamin D deficient with blood levels 20–<30 ng/ml. But vitamin D deficiency is believed to be worldwide, especially among the darker pigmented and elderly. An optimum blood level of vitamin D (25-hydroxyvitamin D) is thought to be 50–99 ng/ml.⁹

[Supplementation of 2,000-5,000 IU have been recommended for varying age groups and ethnic

backgrounds. See your health care provider.]

Seasons are like a shifting canvas, a constantly moving screen where we may stay for a while but we know that time will soon lead us to the next scene. In life there are seasons of great joyous sunshine, of loneliness, hard work, building, or reaping, of mourning and pain, of struggle and trial, of growth and stagnation, of hope and even seeming deadness. As I have considered the seasons of life, I realize that as Christians we emphasize growth and fruit bearing. But what of the less comfortable season of dormancy and seeming stagnation under the icy blasts of winter? In God’s eyes it must be of equal value. Though to appearances life and hope is dead, the greatest growth follows in its wake.

“To every thing there is a season, and a time to every purpose under the heaven” (Ecclesiastes 3:1).

¹ Vera Sharav. “Theory suggests that a shortage of vitamin D triggers outbreaks of flu.” *Alliance for Human Research Protection*. Nov. 27, 2006. http://www.ahrp.org/cms/index2.php?option=com_content&do_pdf=1&id=396.

² Ben Wasserman. “Vitamin D prevents flu epidemic.” *Diet & Health: General Health*. Nov. 14, 2008. http://foodconsumer.org/7777/8888/G_eneral_H_ealth_34/111402112008_Vitamin_D_prevents_flu_epidemic.shtml.

³ See reference #1.

⁴ J.J. Cannell M.D. “Epidemic Influenza and Vitamin D.” *Medical News Today*. Sept. 5, 2006. <http://www.medicalnewstoday.com/articles/51913.php>.

⁵ See reference #2.

⁶ See reference #4 and <http://www.ncbi.nlm.nih.gov/pubmed/16959053>.

⁷ Derek Markham. “Doctor Recommends Avoiding the Flu Shot.” *Eco Child’s Play*. Nov. 18, 2008. <http://ecochildsplay.com/2008/11/18/doctor-recommends-avoiding-flu-shot-vitamin-d-instead/comment-page-3/>.

⁸ Michael F. Holick. Vitamin D: importance in the prevention of cancers, type 1 diabetes, heart disease, and osteoporosis. *The American Journal of Clinical Nutrition*. March, 2004. <http://www.ajcn.org/cgi/content/full/79/3/362>.

⁹ Ibid.

