## Appendix 7: Sunlight, Cancer, and Vitamin D By Becca Chambers

Western medicine has seen the light, so to speak, and it is deadly! No one should allow their unprotected skin to be exposed to the deadly rays of our life destroying sun. That is the current "truth" trumpeted far and wide by Western medicine and a sycophantic media. But Western science is all about reductionism. It is all about searching for that one essential element that is necessary to solve your problem; hence our culture of "take this pill, and call me in the morning." Reductionism, and specialization without taking into account the whole of a person and a system, has allowed one issue to control the entire discussion and public message regarding sun exposure.

Dermatologists naturally focus on the effect of the sun on our skin, which is certainly not all positive. As everybody on the planet must know by now, UV light is damaging to skin, causing free radical production which can lead to melanoma, or skin cancer. But we also make Vitamin D in our skin, an essential vitamin for bone growth and development, proper immune system function, and for serotonin production (essential for proper mood and brain function). So, the solution, according to Western medicine, has been to avoid the sun with its damaging UV rays as much as possible, and take a Vitamin D supplement.

There are several problems with this approach. First, your skin rapidly and effectively produces much more Vitamin D than can be easily taken as a supplement. One glass of Vitamin D fortified milk provides 100 units of Vitamin D, while 1 hour in full sun at midday provides 10,000 units of Vitamin D. So some people now take thousands of units of Vitamin D daily, but Vitamin D is not the active form of this vitamin. It must first be converted into its active form, Vitamin D hormone, in order to provide its benefits. When you take a pill form of Vitamin D this happens in the kidneys, whereupon tiny amounts of this hormone are then sent into the circulatory system to be delivered to the rest of your body. In contrast, it is now known that when you expose your skin to sunlight, first your skin rapidly manufactures vast amounts of Vitamin D, and then many other tissues as well as the kidneys convert that Vitamin D into the active Vitamin D hormone form. Thus, sunlight (or the use of a tanning salon) will result in a much more effective delivery of the active form of Vitamin D to your tissues.

Of course cancer is a very serious concern, but with exposure to sunlight your total risk of cancer decreases. Your immune system has the ability to kill cancerous cells, and your body has the ability to neutralize free radicals before they cause damage to cells and tissues. The proper level of Vitamin D hormone in your tissues is one of the many factors that optimize these systems. Studies have shown that people who worked outdoors or who lived in sunny climates have lower rates of cancers of the breast, colon, prostate, ovary, bladder, uterus, esophagus, rectum and stomach.\* This should be huge news all over the airways, I believe. Not only is the sun great for your bones and nervous system, but it is so good for your immune system function that your total risk of cancer goes down!

Skin cancer rates do go up, but this can be limited by careful gradual exposure, so that one does not get a sunburn which is the major risk factor for skin cancer. Also wise is to get the proper nutrients, ideally through a great diet and supplements made from whole food sources, which will also optimize your body's immune system and free radical neutralization ability.

A second problem with avoiding the sun I believe, is that we may just not know everything yet scientifically about how the sun affects us. Just like an orange is not only vitamin C, but is many things which work in concert to help us, we may get more from sunlight than just Vitamin D. Some energy sensitive people believe we actually soak up 'chi' or 'life force' from the sun. Nearly all animals, even those with fur coats so there is no exposed skin to manufacture Vitamin D, enjoy lying in the sun and I have a hard time believing that behavior developed without some reason; warmth, perhaps, but many animals who tolerate cold easily, such as seals, still love to bask in the sun.

I am not saying that everybody should get unlimited amounts of sun exposure either. People at high risk for melanomas should be more careful, and it is unfortunately true that the protective UV screening ozone layer in our atmosphere has been decreasing, but it is too soon, I believe, to declare an emergency situation where we all must run for cover at daybreak, like cockroaches skittering for the shadows when you turn on the lights. As far as possible, I think we need to try to work with the natural world and its processes that developed over eons of evolution. God, or Mother Nature, and/or evolution, if you prefer, has created an infinitely complex world that cannot easily be duplicated in a laboratory