

# What are the Long-Term Consequences of a Lifetime of Sun Avoidance?

*By John Cannell, MD, Vitamin D Council*



We all know – and if we forget, the dermatologists remind us – that one’s lifetime sun exposure is associated with skin cancer. Scientists have confirmed this finding many times. Dermatologists forget to clarify that many studies show the most feared form of skin cancer, malignant melanoma, is not associated with cumulative sun exposure. Sun phobia is an ubiquitous concern, pervasive, even among teenagers: “Let’s go to the beach?” “No, I don’t want to get skin cancer.” What does this mean for these kids’ future?

The long-term health implications of sun avoidance

## **Dementia**

One risk is those who avoid the sun most of their lives have about a 40% greater risk of getting dementia as they age. This finding was just published but has been reported before. While non-melanoma skin cancers are usually just a nuisance (having to get them frozen), few people think dementia is just a nuisance. You will not see the Surgeon General or the dermatologists publicize this dementia and sun avoidance study; they will continue to encourage a behavior that increases a widely feared disease.

## **Breast cancer**

Another non-nuisance disease is breast cancer. Women who avoid the sun have a much greater risk of developing breast cancer. In an analysis of women in the National Health and Nutrition

Examination Survey Epidemiologic Study, researchers found that the protective effects of sun-exposure on breast cancer was simply enormous. The risk reductions were highest for women who lived in United States regions of high solar radiation, with RRs ranging from 0.35-0.75. That means, sun-exposure reduced the risk of breast cancer by three-fold; for every 100 breast cancers in women practicing sun avoidance, the sun-loving women only had about 35 cancers, an enormous reduction.

### **Bone fractures**

What else can you look forward to if you avoid the sun? How about hip fractures? Yes, it turns out that cumulative sun exposure, as measured by sun damaged skin, decreases one's risk of breaking a hip. It's not just hip fractures, but the prevalence of other fractures is lower in those with high lifetime sun exposure. About 400,000 Americans fracture a hip every year and about 20% of them will be dead in a year. So, compare deaths in the US from non-melanoma skin cancer (about 1,500/year) to deaths from hip fracture (70,000).

### **Multiple Sclerosis**

My personal favorite is how dermatologists avoid talking about multiple sclerosis (MS). Dozens of studies show both lifetime sun exposure and current sun exposure (whether you go to the beach this weekend) reduce the risk of eventually contracting MS. This is a disease you do not want to get. Just recently, scientists confirmed this link between sun avoidance and MS.

### **Myopia**

Have you ever wondered how persons with myopia (near-sightedness) got along before eye glasses? Wouldn't saber tooth tigers have quickly eaten them? It turns out that developing myopia in childhood is a recent phenomenon. Evidence is mounting that the incidence of myopia is growing around the world, with a recent study estimating that on average, 30% of the world is currently myopic and by 2050, based on current trends, 50% will be myopic, that's a staggering 5 billion people. Guess what, according to the best scientific findings available, children who get a lot of sun-exposure have a much-reduced risk of developing myopia.

### **Mortality**

The definitive study on the long-term effects of sun avoidance followed more than 29,000 Swedish women for up to 20 years. Before following the women, scientists classified the women as "sun lovers" or "sun avoiders." The sun avoiders died much younger than the sun lovers, and the size of the sun-avoidance effect of sun avoidance is equivalent to the risk of smoking.

So, the government spends bundles on anti-smoking campaigns, but then spends bundles on anti-sun messages, in effect canceling any positive outcomes of the anti-smoking message with their deadly advice to avoid the sun.

*John Cannell, MD. What are the long-term consequences of a lifetime of sun avoidance? The Vitamin D Council Blog & Newsletter, 5/2018.*