

Myths Versus Truths about Vitamin D and the Sun

Myth:

Independent scientific research has shown that exposure to sun increased production of vitamin D which helped lower risk for diseases including cancer, diabetes, and depression. Therefore, moderate amounts of unprotected sun exposure are necessary for good health.

Reality:

A very good study showed that patients can have normal vitamin D levels despite a lack of UV exposure suggesting that sun exposure is not needed to obtain normal levels. Furthermore, there are no scientific studies that prove vitamin D deficiency causes cancer.

Myth:

There is no credible scientific evidence that regular, moderate sun exposure causes melanoma. Melanoma is seen more often in people who do not receive this type of exposure. Melanomas also usually occur on parts of the body that receive little or no sun.

Reality:

This is a half truth. Indeed, pigmented cells of the body can tolerate a certain amount of exposure to the sun. That is why we pigment-to protect ourselves. Intermittent, intense exposure is probably more of a risk factor for melanoma, than chronic (moderate) exposure. However, other cells of the skin do not tolerate moderate exposure-- leading to basal cell and squamous cell cancers, which are actually much more common than melanoma.

Myth:

Vitamin D supplements provide the same benefits as sunshine, but if taken in too large a dose can cause vitamin D toxicity whereas sun does not. Since multivitamins only contain 400 IU of vitamin D you need to take two and ½ and you are exposing yourself to an overload of other vitamins in excessive amounts (such as vitamin A).

Reality:

The current RDA for Vitamin D is 200 IU for children and adults under 50, 400 IU for adults 50 and older and finally, 800 IU for the elderly. Supplemental vitamin D can be obtained from fish, fortified orange juice and milk (100 IU/8 oz), yogurts, or cereals. Multivitamins are very safe when taken in standard doses. Excessive Vitamin D would be very unusual since most of it is not absorbed when taken orally. So with the assumption that one has a healthy diet, and is taking the normal daily suggested dose of vitamins, the above myth is only half true. Furthermore, sun certainly does cause toxicity!

Myth:

You cannot make vitamin D in latitudes above New York during the winter

Reality:

Normal vitamin D levels are easily maintained through routine daily activities (even when wearing sunscreen) and a normal diet. If the above were true, we would have significant differences in bone disease in people living in New York. This has not been shown.

Myth:

Sunscreens block and stop the supply of fuel the body needed to manufacture vitamin D.

Reality:

There is no such thing as a total UV block. Even the most effective sunscreens let through enough UV to allow for adequate vitamin D formation.

So how much sun exposure is needed to activate our own vitamin D supplies: after limited UV exposure (5 minutes of sun for a Caucasian in New York at noontime in the summer for example), skin vitamin D production reaches its maximum. Further exposure will not produce more vitamin D. It actually has the reverse effect, breaking down vitamin D to inactive compounds.

Myth:

There is such a thing as a “safe tan” since it provides protection against melanoma.

Reality:

Pigmented cells that are exposure to sun are damaged. This damage is far from “safe” since eventually, these damaged cells turn to cancer cells. There really is no such thing as a safe tan. The body will pigment naturally if one is outdoors. The act of “tanning” is not safe.

Myth:

Indoor tanning facilities can stimulate Vitamin D since the radiation exposed to is the same as what you get from sun.

Reality:

Tanning saloons put out many of these myths. The delivery of their light is unregulated, not monitored, and certainly not the same as outdoor light. This has been shown by documenting the gradual changes in skin thickness associated with natural sunlight vs. a tanning facility. Tanning saloons provide no protection whatsoever and certainly, assuming healthy diet is not needed to maintain normal vitamin D levels, even during the winter.