



Sun, skin and vitamin D

■ BY TRACY ERFILING ND

Our planet would not survive without the sun. It allows for an amazing amount of energy and nutrients to be produced; giving Earth the diversity of plant and animal life we so enjoy. It simply follows that human bodies are designed and indeed benefit from sun exposure too ... we also could not survive without it.

When the sun makes contact with the skin it turns on cells called melanocytes, which in turn create melanin. You are genetically programmed to have a certain amount of melanocytes, consequently melanin production.

Melanin levels determine our inherent skin color and increase with sun exposure. For caucasians our ability to tan is a result of melanin production, for those with brown or black skin the melanin content is much higher creating that rich deep color.

Sun protection is indeed an important purpose of melanin as it deflects harmful UV rays...our own built in sunscreen! Undoubtedly some individuals are better at this than others, but most all of us are armed with this tool of nature.

As researchers adventure further into the role of melanin they are finding that it possibly has the ability to protect us in other ways, such as a natural chelator, removing toxic heavy metals from the body.

A vital nutrient we get from the sun is vitamin D. Vitamin D's first production step is in the skin, where a precursor is created from exposure to UVB rays. This precursor is sent to the liver, and finally on to the

kidney's (and other tissues) where the final product (calcitriol) helps the body to regulate blood calcium levels.

But that's not all. This precious little vitamin works throughout the body on many systems. Its effects are somewhat hormone like in that its activity is felt from skin to bones. Indeed low vitamin D levels can contribute to low thyroid function.

It is also a key component to immune function, assisting white blood cells to enhance the specificity of their action. I regularly see this vitamin improve people's energy and feelings of depression. Not surprisingly, this essential vitamin is also showing up as a player in the prevention of many conditions from cancer to hypertension, heart disease, and diabetes.

Sadly, vitamin D deficiency statistics are startling ... some researchers claim that this deficiency affects more than 70% of Americans. This seems to be especially true in dark skinned people who have more melanin therefore more sun blocking action; that means less sun absorption and greater vitamin D deficiency.

In our more northern latitudes this is also an issue as the vital UVB rays which create all these sunny benefits are low to none from the late fall to late spring. FYI: Vitamin D deficiency can be easily tested in the blood.

So now you will not be surprised to hear me say that sun exposure is important...for your skin, hair and even eyes. Our bodies are incredibly efficient at

soaking up the sun, and even a minimal 20-30 minutes can create powerful, long-lasting results.

And what about sunscreen? I can't say that I don't see a connection between our growing fear of skin cancer (i.e. sun exposure) and vitamin D deficiency. As with everything, my recommendation when it comes to sun exposure is that there is a delicate balance to strike; this balance is all your own, as we are each armed with our own genetics and circumstances.

Indeed if there is a history of skin cancer or tendency for burns then your sunscreen free time may be more limited and would be best earlier in the day; protecting yourself with clothing, hats, and shade in the intense hours.

Anyone facing long hours in the sun should definitely be prepared with not only sun protection, but shade and hydration too.

For us northwesterners, supplementing with vitamin D3 during those long winter months is an important consideration. Quick note: since vitamin D3 is a fat soluble vitamin it is critical that you take it with food that has some fat content OR find a supplement where the vitamin D3 is pre-emulsified in some type of oil for optimal absorption.

The take-home point here is that the sun is a necessary and nourishing resource in our environment ... not something to be feared and avoided. Choose your protection wisely, but don't let the next sunny day pass by without taking time to safely soak up some sun.