By **Frank Mihlon, MD**
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Teacher of the Year!

Greetings, fair readers!

Here we are deep into another wonderful summer here in beautiful Virginia Beach, and as I rummage through our bin of mostly empty bottles of sunscreen to find something to protect my lily-white radiologist complexion from the searing pain of a sunburn and the cancer risk that goes with it, I can't help but wonder what's really going on with sunscreen. What is this mystical solution that can somehow neutralize the evil UVA/UVB sun rays that mutate our skin from that smooth baby silk to something that feels more like the sole of my shoe? Does it really expire? How often should we reapply when dry? How about when wet?

To get to the bottom of this and more, I reached out to the North End's own Dr. Ashley Reed; she and her family live on Holly Road. Dr. Reed is a dermatologist who did her residency right here at Eastern Virginia Medical School, went on to do a dermatopathology fellowship at Yale, and has been serving our community at Pariser Dermatology Specialists for the past four years. Her practice is in general and cosmetic dermatology, but her subspecialty training in dermatopathology gives her additional insight into what is happening to our skin at the cellular level.

I peppered Dr. Reed with questions about sunscreen for a good half-hour, and I couldn't get one past her! She is a walking encyclopedia of sunscreen minutia from what the chemicals are in each product to how they work to how the research on sunscreen is conducted to best sunscreen practices for you and me.

First of all, there are two types of sunscreen. One type is the simple barrier reflect: the sun-off sunscreen that seemed to manifest only as a white streak on the noses of lifeguards in those old photos hanging on the walls at Waterman's (these are coming back and, in fact, are all that Dr. Reed uses on herself and her family). It turns out a lot of baby sunscreens are these barrier zinc oxide and titanium dioxide types. The other type is chemical sunscreens, and these absorb the sun's radiation and convert the radiation into heat. The heat then just sort of floats away unnoticed off your skin, so you don't absorb the radiation and get the skin damage. Both types work and are safe.

Whichever type you use, what people tend to get wrong are the issues pertaining to amount and frequency of application. All of the testing on sunscreen is done on a pretty thick layer of sunscreen, so those three drops you and I are putting in our palm and trying to spread across our great sheet of tender flesh isn't cutting it! Per Dr. Reed, the laboratory rating of sunscreen strength and effectiveness as stipulated by the FDA is under conditions where an adult applies 1.5 ounces (OK, a shot glass) of lotion every two hours.

That's a lot of sunscreen! I'm looking at a couple of bottles here, and the small one is 4 ounces, and the big one is 8 ounces. Doing the math, that small bottle should buy me about five hours of sun time counting reapplications, or the big bottle could supply my wife and me for those five hours. And I've still got two kids to keep lathered up! So, we should be going through whole bottles of this stuff pretty regularly. I don't know about you, but I don't even come close to doing that! Mind blown! Forget about expiration dates; sunscreen bottles should be getting turned over on the order of days, not years!

And what about water? Well, to get the label "water-resistant," a sunscreen has to work for 40 minutes in the water. There is a designation out there of "very water-resistant," as well, and that buys you 80 minutes in the water. But both of those are way less than the two hours on dry land, so if you or your kids are partying in the pool, keep the sunscreen flowing!

And if you have taken a lot of sun in your life and find yourself in a situation where there is a new spot on your skin that you have a question about, don't hesitate to make an appointment to see Dr. Reed or one of her colleagues. Better safe than sorry!

So, go out there, be safe with sun exposure, and enjoy the rest of your beautiful summer here in the North End!

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PS. If interested, please feel free to peruse back columns on Mihlon.com!