

Debugging the Sunscreen Factor

Dive Diva Skin Care

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Diving into Skin... Sun Protection Revisited

Just like GirlDivers don't go under the waves without our "life support system", we shouldn't go under the rays without a "life support system". Yes, ladies (and gentlemen), we're talking about sun protection. And while sometimes this topic seems over played, hopefully this article will share new information and remind you of the need for adequate skin care under the sun.

Growing up as a fair skinned red head with a passion for the water, I was exposed to many a nasty burn, leaving my

skin peeling, blistered and sore. I learned, early on, that sunscreen would stop the burning, but how I longed for the healthy, tanned skin of my peers. As I've gotten older, the tanned skin of my peers is beginning to look leathery, and I have learned that the tanned look is not really a "healthy" look.

There is NO SUCH THING as a safe tan, whether from the sun or the latest technological breakthrough in "safe" tanning booths. UVA and UVB rays both have harmful effects on your skin. So, what's the difference between the two?

UVA: These are the silent killers. You can't feel them, but they can penetrate clear glass that doesn't have a UV block. UVA rays cause 80 percent of the damage from the sun. Even low exposure to UVA destroys your skin's support structure causing sagging, wrinkling, DNA damage and ultimately skin cancer.

UVB: These are the burning rays. Within the first 60 seconds of walking outside, damage from UVB rays begins. The impact is immediate and harmful. These also attribute to skin cancers.

Caribbean Solutions formulator and Florida biochemist, Celia Ferreira, PhD., says, "We don't need to choose between protecting our skin and protecting coral reefs... In my experience, sun products without petroleum derivatives actually protect the skin better."

Cool facts about sun rays:

They are there...even when the sun isn't. On cloudy or hazy days, the rays are still present and damaging.

They can bounce. Surfaces like water, cement and grass reflect the rays from the ground, so you can get a double whammy of sun exposure. A layer of water on a diver's face will magnify the exposure.

Enter the sunscreens.

SPF? UVA/UVB coverage? Waterproof sunscreen? Let's debug some of these mysteries.

SPF (Sunscreen Protection Factor) is supposed to tell you how long you can stay in the sun before getting burned. If you can normally stay in the sun for 15 minutes before turning pink, an SPF 15 will allow you to stay in the sun for 3 ½ hours without burning. The formula is 15 (minutes) x 15 (SPF).

Unfortunately, the SPF only applies to UVB rays. Not UVA. Some sunscreens don't even offer UVA protection. And, remember, UVA is the skin cancer ray.

So, if you don't burn easily, can you go with a lower SPF?

Not necessarily. The effectiveness of SPF goes up relatively. An SPF 2 blocks about 50 percent of the UVB rays, an SPF15 blocks 95 percent and an SPF 30 blocks about 97 percent. An SPF higher than 30 only gives you more time in the sun without burning, but does not effectively block any additional UVB rays. So, at best, you're going to let approximately 3 percent of the radiation penetrate your

for 79 percent of skin cancer deaths.

Skin Cancer Facts: The WOW'S of Skin Cancer

Wow #1: Skin cancer: the most commonly diagnosed cancer in the U.S. and Australia, and second in the U.K. If detected early, skin cancer has a 90 percent cure rate.

Wow #2: More than 90 percent of skin cancer is caused by sun exposure.

Wow #3: The World Health Organization estimates that as many as 65,161 people per year worldwide die from too much sun, mostly from malignant skin cancer.

Wow #4: There are two types of skin cancer: Malignant melanoma and non-melanoma (usually basal cell or squamous cell cancers). Melanoma is less common (accounting for 4 percent of all skin cancer cases) but accounts

Wow #5: While men are twice as likely to develop skin cancer, women are more likely than men to develop malignant melanoma. The most common place for women to get melanoma is on the legs.

Wow #6: Early detection works. In Stage 1 Melanoma, there is a 99 percent five year survival rate, whereas Stage 3 Melanoma has only a 15 percent five year survival rate.

THE ABCD'S for early detection of Melanoma. Be on alert for:

- A - Asymmetry:** one half of a mole or birthmark does not match the other.
- B - Border:** the edges of area are irregular, notched or blurred.
- C - Color:** the area is not even in color but has differing patches of brown and black, sometime white, blue or red.
- D - Diameter:** the diameter is larger than 6 mm or growing larger. ■



Dr Lani Simpson of Berkeley, California, has developed a coral reef safe line of skin and suncare products called, ECOLANI, which is chemical free, hypo-allergenic, non-comedogenic and ecologically friendly. ECOLANI's ingredients are 100 percent natural and plant based



mermaid matters

skin, which explains why you still might get some color despite lathering sunscreen profusely on your skin.

Touted as the best sunscreen available, La Roche-Posay Anthelios XL Lait SPF 60, made by L'Oreal, adds a compound known as encamsule, or Mexoryl, to their screen. This blocks both long and short UVA rays for the most effective coverage available. If this product isn't available, look for avobenzene, titanium oxide or zinc oxide on the active ingredient list for UVA protection.

To get the best sunscreen protection, apply the lotion 30 minutes prior to exposure to allow active ingredients to bond to your skin. A second coat, applied 20 minutes later, gives maximum filtration of the sun's rays. Sunscreen doesn't block the rays, rather it acts as a filter, diffusing and scattering the light rays to reduce exposure and damage.

Since there is no such thing as a truly "waterproof" sunscreen, most brands are now using "water resistant" on their packaging, which means they need to be reapplied if you've been swimming, sweating or diving for more than 40 minutes. No matter what the bottle claims, to avoid a burn on holiday, reapply after departing the water every time.

And for our fair-skinned mermaids, it's smart to pack an aloe gel in your bags, just in case. Don't assume the resort you're visiting will have sunburn remedies. To ease the pain of a nasty burn, keep aloe refrigerated and reapply frequently.

Choose your protection carefully, and for that bronzed skin look that swimsuit models everywhere have, you may want to look at self-tanners. After all, being taken out of the underwater world to soothe a serious burn on your dive holiday...well, it just isn't worth it. ■

Editor's note: some sunscreens have been found to be damaging to coral reefs. Please check the label and choose with discretion. Seek biodegradable, organic, oil free, petroleum derivative free and PABA free products where available. Or wear 50+ SPF (UVF) sunscreen clothing, or rash guards, to minimize use of sunscreen lotions. Protect yourself and protect the environment.

According to Environmental Health Perspectives, four common sunscreen ingredients—octinoxate, oxybenzone, 4-methylbenzylidene camphor and the preservative butylparaben—activate viruses that destroy an important symbiotic algae that provide nutrients to coral through photosynthesis. Without this algae, corals bleach and die. SOURCE: ENVIRONMENTAL WORKING GROUP (EWG) ■

An alternative to sunscreen lotions, is sunscreen clothing, or UV protective swimwear. Check out these cool duds from Coolibar.com. Swim shirt, swim tights and swim skirt block 98% UV (UPF 50+)

Beach Buff's website says its products truly are reef-safe in a statement written by an official who is a diver. They use Titanium Dioxide, a category one sunscreen, to help block out UV rays in their high SPF product (with no whitening), Octyl Salicylate to help protect against UVB rays, Benzophenone-3 and Octyl Methoxycinnamate to help protect against UVA and UVB rays

