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Sunscreen and Skin Cancer By James L. Holly, MD Your Life Your Health *The Examiner* July 6, 2006

You don't need a sunburn to suffer the effects that can cause various types of skin cancer. Sunscreens generally do a good job filtering out the ultraviolet rays that cause sunburn — UVB rays. But with sunburn protection, many people get a false sense of security that keeps them under the harsh sun much longer. That adds to the risk of eventual skin cancer — both deadly melanoma and the more common and less-threatening basal and squamous cell cancers.

Most sunscreens don't defend nearly as well against the UVA rays that penetrate deep into the skin and are more likely to cause skin cancer and wrinkles. That's true even for some products labeled "broad-spectrum UVA/UVB protection." Experts say the best protection against UVA is a sunscreen that includes zinc oxide, titanium dioxide or avobenzone. Consumers should also look for those that are water-resistant and have an SPF of 30 or better, indicating strong protection against UVB rays, and apply liberally and often.

More important, limit time in the sun, particularly from 10 a.m. to 4 p.m., and cover up, including wearing a hat and sunglasses. Protecting children is particularly important as they often spend much more time swimming during the summer than adults.

How to protect kids from sun

- Stay out of the sun during its brightest hours, 10 a.m. to 3 p.m.
- Apply an SPF 30 or higher sunscreen evenly to all uncovered skin 30 minutes before going outside.
- Use at least an ounce on all exposed skin.
- Remember to apply sunscreen to eyelids, lips, nose, ears, neck, hands and feet.
- If young children don't have much hair, apply sunscreen to the tops of their heads and/or have them wear a hat.
- Reapply sunscreen at least every two hours and always after swimming or perspiring.
- Urge children to wear sunglasses, protective clothing and a wide-brimmed hat to protect eyes, head and face.

How much sunscreen to use?

How much sunscreen you put on your child will also determine how protective it is. Sunscreens are tested and rated with Sun Protection Factors (SPFs) based on optimal use. Yet skin care pros admit very few consumers use the products the way they are tested. Many sunscreens say little about when to reapply — doctors say at least every two hours and after swimming or sweating. Nor do they say much about how much to use, roughly two tablespoons for an adult.

Most people who use an SPF 15 get the protection equivalent to an SPF 5 because they put it on" too thinly. While a higher SPF number means more protection, the difference is small: SPF 15 blocks about 93 percent of UVB rays and SPF 50, often more expensive, blocks about 98 percent.

Most sunscreens work by reacting chemically with the skin, so they don't start absorbing damaging rays right away and must be applied a half-hour before going outside, something many labels fail to note. Claims such as "waterproof" and "sunblock" are unsupported, according to the Food and Drug Administration, which years ago proposed replacing them with the more-accurate terms "water resistant" and "sunscreen." Manufacturers, including Neutrogena Suncare maker Johnson & Johnson and Coppertone maker Schering-Plough Corp., say they haven't complied because the FDA still hasn't imposed those rules — a delay that's spawned consumer lawsuits and pressure on the FDA from Congress and the American Cancer Society.

Still, doctors say people shouldn't abandon sunscreen: They probably should use more. Sunscreens do protect against skin cancer. We definitely still need sunscreen, even on a cloudy day. Research has shown heavy sunscreen use lowers risk of squamous skin cell cancer, which has a high cure rate if caught early. Another study found heavy sunscreen use in children reduces the number of moles, which can turn cancerous later.

Despite public education campaigns about avoiding sun exposure and tanning salons, skin cancer incidence is climbing, with estimates of 1 million to 1.8 million new U.S. cases each year. The epidemic of skin cancer continues to grow worse," with new cases jumping from barely 500,000 just 20 years ago. There will be about 62,000 melanoma cases and 7,900 deaths this year, the American Cancer Society estimates. There are more than 1 million annual cases of squamous and basal skin cancers, and about 2,800 deaths. The American Academy of Dermatology recommends everyone should wear a Sun Protection Factor 30 sunscreen or more.

Don't believe the "broad-spectrum" claims on sunscreen labels. The U.S. has no standard measurement of blockage for the other kind of harmful rays, UVA. The best consumers can do for now is read the label for these UVA blocking ingredients: zinc oxide, titanium dioxide or avobenzone (Parsol 1789). So what's the truth? Is it worth the trouble to slather kids with sunscreen or should we just throw in the towel this summer? Dermatologists are unanimous: don't ditch sunscreens. Sunscreens are still good, but what we know is that there isn't a perfect sunscreen. That doesn't mean, though, that the sunscreens don't block the majority of the harmful rays. Sunscreens, when used properly, definitely work.

No sunscreen is really waterproof. At best, a sunscreen can be water-resistant. There's good data to say that sunscreens (labeled waterproof) are effective immersed for an hour

or even an hour and a half but nobody is just immersed when swimming — especially not kids. They're flailing, agitating and splashing. Dermatologists say the solution is to reapply sunscreen a minimum of every two hours, no matter what the label says, and always after kids sweat, swim or towel off.