Pure Dermatology's Guide to Sunscreen

Basic Information:

Sunlight contains 3 different spectrums of ultraviolet light. Ultraviolet C (UVC) light is primarily blocked by the ozone layer and is not an issue for us on earth. Ultraviolet A (UVA) and ultraviolet B (UVB) light do reach the earth's surface and cause multiple different effects in the skin.

In fact, we know that ultraviolet light is the most important risk factor that we can control to decrease your chances of developing skin cancer (i.e. you cannot change fair skin, red or blond hair, blue or green eyes, the number of moles you have, or your family history- all of which are other important risk factors for developing skin cancer). This is extremely important considering that approximately 1 in 5 Americans will get skin cancer during their lifetime.

Ultraviolet (UV) light also causes sunburns, immunosuppression (decreases your immune system in your skin) and premature aging. Aging caused by ultraviolet light includes brown spots, wrinkles, uneven pigment and rough texture to your skin.

UVB light does not penetrate glass, but UVA light does. So, you still get damaging rays through windows in your house, office and car.

Sunscreen and SPF:

SPF stands for Sun Protection Factor. It is a measure of the UVB protection you are getting in your sunscreen. It tells you how much longer you can stay out in the sun without getting red. For example, a SPF 30 means that you can stay out in the sun 30 times longer without getting a sunburn. So, if you normally sunburn in 10 minutes, then you can now stay out in the sun for 300 minutes without burning.

As mentioned above, UVA and UVB protection are both very important. There is currently no approved measure for UVA protection on sunscreen bottles (SPF is only a UVB protection measure). For this reason, it is important to pick a sunscreen that is labeled as broad spectrum and will protect against UVA and UVB rays.

Sunscreen ingredients: There are 2 types of sunscreens: physical blockers and chemical blockers. Physical blockers (also called mineral blockers) will repel the suns rays. Chemical blockers convert the harmful UV rays into heat, and thus they prevent damage from the UV rays.

Physical (Mineral) Blockers will contain zinc oxide or titanium dioxide as the active ingredients. We feel that zinc oxide is the best sunscreen ingredient available since it blocks the largest amount of harmful UV rays. Look for a sunscreen with at least 5% zinc oxide.

Chemical blockers will contain active ingredients such as avobenzone, oxybenzone, octrylene, octinoxate, octisalate, mexoryl and tinosorb. If the sunscreen contains avobenzone, it should say that it is photostabilized (as avobenzone often breaks down with exposure to UV light). Some examples of products with stabilized avobenzone include: Neutrogena with helioplex, Aveeno with avoplex, Coppertone and Banana Boat.

Some sunscreens will contain both physical and chemical blockers.

Sun Protection:

· Wear sunscreen every day!!!!! We recommend wearing sunscreen on sun exposed areas every day (i.e. face, neck, chest, hands). Elta MD, available at our office, has several excellent options for daily use.

· Make sure your sunscreen is at least SPF 30 and labeled as broad spectrum

How to use Sunscreen:

· In general, your sunscreen should be applied at least 15- 30 minutes prior to going outside. When outdoors, reapply your sunscreen at least every hour (and reapply sooner if you are in and out of the water or sweating a lot).

· Make sure your sunscreen is water resistant (or very water resistant) if you are going to be in the water or sweating. Water resistant sunscreens have proven that they maintain their benefits after 40 minutes of water exposure. Very water resistant suncreens have proven that they will continue to work after 80 minutes of water exposure.

· Make sure you are applying enough sunscreen. An average size adult should use about an ounce (shot glass) of sunscreen to cover their entire body. Most people do not apply enough sunscreen and thus they are not getting the SPF advertised on the bottle! Think about this

most sunscreens are going to come in around a 8 oz bottle. If you are using an ounce of sunscreen per application at the beach, then that means your bottle should only last you (just one person) maybe 2 days if you are applying it correctly.

· Don't forget your lips!!!!! Make sure to get a chapstick, lip gloss or lip balm with an SPF of 30 in it!

Other smart sun behavior tips:

· Wear sunglasses to protect your eyes.

· Avoid the out doors between 10 and 4 pm as much as possible.

· When outdoors, seek shade.

· Wear sun protective clothing with a high UPF rating. There should be a tag on the clothing that tells you the rating, which is similar to an SPF rating on sunscreen. A UPF rating of 50 means that the fabric blocks 98% of the sun's UV rays. The highest possible UPF rating is 50+. This is a great way to get added protection and many brands now provide great protection in fashionable clothing. Check out these websites:

www.coolibar.com <http://www.coolibar.com>

www.sunprecautions.com <http://www.sunprecautions.com>

· Be extra careful around sand, water, and snow since these surfaces will also reflect the UV light and you will get more exposure.

· Remember, you still get up to 85% of UV light on cloudy days.

Helpful Hints:

We prefer a sunscreen with at least 5% zinc oxide. This will provide you the best protection from harmful UV rays. We especially like to use the physical blockers in children and those with sensitive skin as these are much less likely to be irritating or cause an allergy. Our favorites is Elta MD Pure available at our office. Other great brands:

- Elta MD (available in our office; not available at drug store)
- Vanicream SPF 30 or 50
- Baby Blue Lizard
- Johnson's Baby Sunscreen Lotion SPF 40
- Neutrogena Pure and Free or Neutrogena Sensitive Skin

In adults, zinc oxide sunscreens can sometimes leave a whitish coloration to the skin, so you may need to try some out to see what works for you. We carry the Elta MD line at our office. These are zinc based sunscreens that work very well for most people. If using a zinc based sunscreen, be careful with photographs as the whitish discoloration may be more noticeable.

Swim shirts and hats are a great way to get added protection for kids at the pool.

Some sunscreens with physical blockers will come tinted, and many women love this for daily use. We have several tinted options available at our office.