



SUN PROTECTION GUIDELINES

Protecting your skin from the sun will reduce the likelihood of skin cancer and wrinkles.

1. **There is no such thing as a safe tan.** A tan is visual evidence that skin has been damaged. To produce a tan, your pigments cells have to mutate themselves to create a darkening of the skin that they think will protect themselves from further damage.
2. **There is no such thing as a safe sunburn.** Sunburn means that the rays of the sun have burned your skin. Those people with fair skin, hair light eyes, many freckles, and lots of moles are at an increased risk for melanoma and other skin cancers.
3. **A “base tan” offers no protection.** There is no evidence that getting a tan will protect your skin in any way.
4. **Tanning beds do cause sun damage!** The American Cancer Society reports that people under the age of 35 who use tanning beds regularly have a risk of melanoma eight times higher than that of people who never use tanning beds. Even occasional use nearly doubles the risk of developing the disease. And a recent study published in the Journal of the National Cancer Institute indicates that the use of tanning devices may also contribute to the incidence of non-melanoma skin cancers. They cause premature aging too.
5. Sunless tanning solutions **do not protect** from sunburn.
6. Everyone eventually has wrinkles. Overexposure to the sun will substantially speed up the wrinkling process.
7. **Stop smoking** Cigarette smoking is the number one preventable cause of death in the U.S. Smokers have an increased rate of certain skin cancers and skin conditions. Smoking causes wrinkles too!
8. **Minimize sun exposure**, especially 10 A.M to 2 P.M. when UVB intensity is highest. Seek shade. Sun bathing, even wearing sunscreen, is still harmful!
9. **Wear sun-protective clothing** when outside; this means a hat with at least a 4 inch circumferential brim, long sleeved shirt, and long pants or skirt. Baseball caps don't protect the ears, back of the neck, or even most of the face. Straw hats are unlined and loosely woven, which allows the sun to go directly through the hat. The fabric must also be sun-protective; a light cotton material does not protect well from the sun. Some lines of clothing are marketed today with an SPF rating. Typical shirt fabrics only offer SPF of 6.5. Weave tightness is the most important factor in sun protection of fabrics followed by the fabric type. Darker color fabrics provide greater protection from UV rays than do lighter color fabrics. It is also important to note that fabrics are significantly less sun protective when wet.
10. **Broad-spectrum sunscreen (UVA and UVB)** means that the sunscreen has components that absorb or reflect UVA as well as UVB. The SPF refers only to the capacity to screen UVB; there are as yet no guidelines, comparing how well a sunscreen filters UVA. The most effective sunscreens contain only Parsol 1789 or micronized titanium dioxide or micronized zinc oxide. **UVA – Aging** rays of sun; causing wrinkle formation and skin cancer. **UVB – Burning** rays of sun; the cause of sunburns and skin cancers. Car and house windows only protect against UVB, not UVA. That's why sun protection should not be limited just to sunny days.
11. **Use SPF 15 or higher sunscreen** on all areas of skin not covered by clothing. SPF = Sun Protection Factor. SPF rating is calculated by comparing the amount of time needed to produce a sunburn on

- skin with sunscreen vs. without. SPF does not mean how many hours you can stay in the sun; it simply means that if skin turns pink in 30 minutes without protection, application of an SPF of 10 will delay the onset of pinkness, given the same exposure, for 300 minutes. Use on all parts of your skin exposed to the sun, including the ears, back, shoulders, and the back of the knees and legs.
12. **Apply sunscreen to the face every morning** if you want thorough protection against sun-related aging and discoloration of the skin. It should be a habit, like brushing your teeth. Remember that such changes are not only induced by intense sun exposure, but also by cumulative, mild, brief exposures to the sun. Also apply on neck, ears, hands and arms. It will help prevent “liver spots” which are really sun damage. SUN SAFETY is not just a summer issue – it is a year round issue.
 13. Don't forget the importance of **protecting your eyes and lips** from sunlight. Moles that can degenerate into melanoma can form at the back of the eye. Sunlight can cause problems like cataracts. Lips can get cancerous growths. Lipstick does not contain sunscreen!
 14. You should always apply sunscreen at least 20 minutes before going out, this gives it time to absorb, or setup. This is especially important with chemical sunscreens. An application for the body should be 1 oz. (a shot-glass full). An 8 oz. bottle of sunscreen should last only 8 applications!
 15. **Reapply sunscreen every one - two hours** if you are out in the sun, and reapply after swimming or excessive perspiration.
 16. **Reflective surfaces** (snow, water, sand, concrete) increase exposure. Mild cloud cover offers little protection from sunburn. Higher altitude intensifies exposure. Even shade is not complete protection when there is significant reflection from surroundings. Again, SUN SAFETY is not just a summer issue – it is a year-round issue!
 17. Keep a bottle of sunscreen (hats, etc) handy you never know when you might need it! Eg. skiing (as stated above), and those first football games of the season. I will never forget at a Notre Dame football game, starting at noon in September, watching all those fair Irish fans walking out looking like lobsters and in pain. Not me! I had my sunscreen and my hat!
 18. **Infants under 6 months** generally should be kept out of the sun. If sun exposure is likely, use titanium dioxide- or zinc oxide-based sunscreen. Some medications cause serious sun-sensitivity, as do some diseases, such as lupus erythematosus.
 19. It is possible to become allergic to sunscreen products. If you think this might apply to you, you should discuss it with a dermatologist. Even if you have very sensitive skin, it is always possible to find a sun-protective regimen.
 20. Check your skin and moles once a month or so. If you do a monthly breast exam, this is a great reminder to check your skin. You can use your partner or a mirror to help you see your back. It is a good idea to get a yearly skin check.

The common forms of skin cancer

1. **Basal Cell Carcinoma** – this is the most common form of skin cancer and the one that grows the slowest. It most commonly appears as a shiny bump on the head, neck or hands. It occasionally looks like a red, scaly patch. Left untreated, a BCC will bleed, crust over, heal, then repeats this cycle. They can cause local destruction if not treated.
2. **Squamous Cell Carcinoma** – this may appear as a bump or a red, scaly patch. It is the second most common type of skin cancer. The most common areas it is found are the ears, face, lips and mouth.

Unlike a BCC, if an SCC is left untreated, especially in an organ transplant patient, they can metastasize (spread to other parts of the body). Actinic keratosis can become SCC's if not untreated.

3. **Malignant Melanoma** – it is projected that this most deadly form of skin cancer will develop in 44,000 Americans annually and every year about 7,300 will die of melanoma. Melanoma is aggressive and can metastasize. Just like the less aggressive forms of skin cancer, melanoma can be curable when it is detected at an early stage. **Early detection is key!** Melanoma starts in the melanocytes, or pigment producing cells in the skin. It is these cells that cause a “tan”, acting as partial protection against the sun. Melanoma cells usually continue to produce pigment, which accounts for most melanomas appearing as spots that are a mix of tan, brown and black. Occasionally melanomas do not produce pigment and can be white or red. It is normal to have moles, or nevi. It is not normal for our flat moles to change once we are in our late 30's.
4. **Actinic Keratosis** – these are precancerous, scaly spots that do not go away with moisturizer. They are usually found on the face, ears, and occasionally arms. They differ from Seborrheic Keratosis, which look like “stuck on” spots.

SEE YOUR DOCTOR IF:

You have a sore that does not heal

A new mole (after the age of 30) or one that is an “ugly duckling”

A mole that persistently itches or bleeds

A mole that has **A** – asymmetry, **B** – border irregularity, **C** – color variations – black, bleeding, more than one color, **D** – diameter >6mm (bigger than a pencil eraser), **E** – evolution changes, growth, itch, bleeding, or a new elevated area of an existing mole.

INDEX NUMBER EXPOSURE LEVEL

The UV Index Describes the Next Day's Likely Levels of Exposure to UV Rays

0 to 2 Minimal

3 to 4 Low

5 to 6 Moderate

7 to 9 High

10+ Very High

Sunscreens allow us to enjoy the sun while **limiting but not eradicating** damage from ultraviolet rays. Choosing a sunscreen involves personal taste (how greasy, pleasant etc.) as well as ingredients. Listed later are quality brand names but experimenting is the way most people find their favorite. Get used to reading ingredients so you find out what you like and what causes problems. Men tend to prefer sprays and gels, which are also preferred by acne patients.

REMEMBER: The best sunscreen is one that is out of the bottle on your body!

UVB SCREENS: 260 NM TO 320 NM

- PABA (known allergen, and most likely avoided in current sunscreens)
- Octinoxate (aka Octyl Methoxycinnamate)
- Ostisalate (aka Octyl Salicylate or Ethylhexyl Salicylate)

UVA SCREENS: 260 NM TO 400 NM

- Oxybenzone
- Avobenzone (aka Parasol 1789)
- Benzophenone
- Menthyl Anthranilate
- Mexoryl is an ingredient in sunscreen in Europe for UVA protection. It is not FDA approved in the US yet (it will be soon!)

PHYSICAL BLOCKERS: 290 NM TO 700 NM

Physical blockers used to leave a heavy white color, but most are micronized, so they are clear

- Titanium Dioxide

PHYSICAL BLOCKERS: 290 NM TO 1800NM

- Titanium Dioxide
- Iron Oxide (also blocks visible light)
- Zinc Oxide

PROTECTIVE CLOTHING COMPANIES: Specialty clothing lines tend to be quite expensive.

www.coolibar.com

www.sungrubbies.com

www.sunprecautions.com

www.sunprotectiveclothing.com

www.sunclothingetc.com

www.sunproof.com

www.solartex.com

www.SolarEclipse.com

www.SunSolutionsClothing.com

www.sunfriendlyproducts.com

www.wallarooahats.com

RIT Sun Guard Laundry Treatment UV Protectant in your washer along with your regular detergent provides a SPF 30 with one treatment for up to 20 washes.

IF YOU GET A SUNBURN

Cool off as soon as possible, you can use cool compresses, or soak in cool bathwater with ½ cup of baking soda. Take ibuprofen every 4-6 hours as directed on the bottle to help with the inflammation. Try over the counter hydrocortisone applied a few times a day. Use lotion or cream, not ointment. If this is not adequate, you may need to seek medical attention. **LEARN YOUR LESSON:** Avoid more sun and wear sunscreen!

SUNSCREEN LIST

Broad-spectrum UVA/UVB sunscreens containing:

- Blue Lizard SPF 30+
- Cetaphil Daily Facial Moisturizer SPF 15
- Coppertone Shade Spray Mist SPF 30
- Coppertone Shade Sunblock Lotion SPF 30
- La Roche-Posay Anthelios “L” Cream SPF 30
- Ombrelle Sunscreen Lotion/Spray SPG 15/30
- PreSun Ultra Lotion/Gel SPF 15/30
- SolBar AVO SPF 32

Oil Free sunscreens for those prone to acne

- Clinique Oil Free Sunblock SPF 15
- Coppertone Shade Oil-Free Gel SPF 30
- Neutrogena Oil Free Sunblock Lotion SPF 30
- Neutrogena Sunblock Spray SPF 20
- Ombrelle Sunscreen Spray SPF 15
- SolBar Gel SPF 30

Sunscreen for lips or eyelids

- ChapStick Ultra SPF 15/30
- Coppertone Sunblock Stick SPF 15
- Coppertone Shade Sunblock Stick SPF 30
- La Roche-Posay Antherpos Ceralip SPF 50
- Neutrogena Lip Moisturizer SPF 15
- Neutrogena Sunblock Stick SPF 25
- PreSun Lip Protector SPF 15

Moisturizer/sunscreen combinations

- Aveeno Positively Radiant / Positively Ageless – Both SPF 30
- Cetaphil Daily Moisturizer SPF 15
- Eucerin Daily Lotion SPF 30
- Lubriderm Daily UV Lotion with Sunscreen SPF 15
- Neutrogena Healthy Skin SPF 15/30
- Neutrogena Moisture SPF 15
- Oil of Olay Daily UV Protectant SPF 15/30
- Purpose Dual Moisturizer Lotion/Cream SPF 15

Waterproof/sweat-resistant sunscreens

- Coppertone Sport spray/stick SPF 15/30
- Elta Block Super Waterproof SPF 30
- La Roche-Posay Anthelios “S” cream SPF 30
- Neutrogena Sunblock spray/stick SPF 20/25
- PreSun Ultra Spray SPF 27
- SolBar cream SPF 50

Sunscreens for very sensitive skin (look for titanium dioxide or zinc)

- Blue Lizard SPF 30+
- California Baby Fragrance Free SPF 30+
- Clinique City Block SPF 15/25
- Coppertone Spectra 3 SPF 50
- DML Facial Moisturizer SPF 25
- Dove Facial Sunscreen SPF 15
- DuraScreen SPF 30
- Elta Block SPF 30/32
- Estee Lauder Sunblock SPF 15/30
- Fallene CoTZ SPF 58 (Contains only Titanium and Zinc)
- Fallene Total Block SPF 65
- Lubriderm Lotion SPF 15
- Neutrogena Sensitive Skin Sunblocker SPF 30
- PreSun Sensitive Block SPF 28
- SkinCeuticals Physical UV Defense SPF 20/30/45
- SolBar Cream and Gel SPF 15/30/50
- Vanicream SPF 15/35/60

All products listed are available over-the-counter, unless otherwise stated, but you may need to ask the pharmacist for a product or to order it. You can also find many of these on the internet. They may also cost a bit more than other products.