

Sunscreens and Sun Protection

Why should I protect my skin?

Warm sunny days can provide us with an opportunity to participate in many enjoyable outdoor activities. However, too much sun exposure produces not only an immediate sunburn but also the delayed, less obvious skin changes called premature aging. Skin that has prematurely aged will appear freckled, wrinkled, dry, and may become either thicker or thinner. If the skin thins, small red or blue vessels also may become noticeable, especially over the nose, cheeks, ears or lips. Additionally, research suggests that too much sun exposure may damage the immune system.

Obviously, the most serious effect of too much sun exposure is the risk of developing skin cancers. Repeated sun exposure produces harmful effects, which stack up like building blocks in your skin cells. However, the damaging effects of the sun's rays may be slowed with good skin protection.

What can I do to protect my skin?

The best way to protect your skin is to use photoprotection. Photoprotection is the use of both physical and chemical protection to prevent skin damage from sun exposure. Physical protection is provided by clothing, umbrellas and shade. Chemical protection is provided by sunscreens.

The easiest way to prevent sun-damaged skin is to stay indoors or to avoid unnecessary sun exposure, especially between the hours of 10 a.m. and 4 p.m., when the sun's rays are the strongest. When you are outside, remember that the shorter your shadow, the more damaging the sun's rays.

The sun's rays are more intense closer to the equator and in mountainous regions. At any given location, for every 1,000 feet above sea level, the sun's intensity increases about 5 percent. Also, don't be fooled by the presence of clouds-you can burn even on a cloudy day.

Because 80 percent of the sun's rays are reflected off surfaces such as water, sand or concrete, you are not totally protected even in the shade. Some damaging rays may also be transmitted through window glass.

Do not damage your skin with artificially produced sunlight emitted from indoor tanning devices such as beds, panels or lamps. Such tanning devices are a definite health risk!

To prevent cataract formation or eye damage, wear eyeglasses or sunglasses that filter out most of the sun's rays.

For the **best protection** from the sun's harmful rays, wear protective clothing such as hats, beach robes, long-sleeved shirts and long pants. Tightly woven and darker-colored clothing provide better protection from the sun's rays. Laundry additives, such as Rit[®] Sun Guard, may be added to the wash cycle to temporarily increase the sun protection of clothing.

Infants under six months of age should be kept out of the sun. Use of photoprotection in children over six months of age may prevent skin damage over time. Regular use of sunscreens during the first 18 years of life may decrease the risk of skin cancer by approximately 78 percent.

People with fair skin, those who work or play outdoors, and those who have already had skin cancer should use photoprotection regularly.

What are sunscreens?

Sunscreens are lotions, creams, oils or other products made up of special chemicals or agents that, when applied to the skin, absorbs or reflects the sun's harmful rays to minimize skin damage.

Why do I need to use sunscreens?

Sunscreens protect your skin from the sun's harmful rays called ultraviolet (UV) rays. The sun releases two types of harmful rays that reach the Earth's surface. These rays are Ultraviolet B (UVB) and Ultraviolet A (UVA). UVB rays are the primary cause of skin cancer from sunlight exposure. UVB ray intensity will vary with the seasons (e.g., they are greater in the summer and less in the winter). UVA rays remain intense throughout the entire day and throughout the entire year. They also contribute to the development of skin cancer, premature aging of the skin, and are harmful to the eyes and immune system.

Sun Protection Factor (SPF) number: What does it mean?

Sun Protection Factor (SPF) numbers measure the effectiveness of a sunscreen in filtering out UVB rays. Sunscreen products are assigned an SPF number - the higher the SPF number, the greater the protection against UVB rays. Depending on your skin type, the minimum recommendation for a sunscreen is an SPF 30. An SPF 30 means that if you were exposed to noontime summer sun, the sunscreen protected skin would take 30 times longer to burn than the unprotected skin. Although an SPF 30 is enough protection for most people, you may need a higher SPF sunscreen, especially if you easily sunburn, or are sun sensitive. Applying a sunscreen does not mean that you can have unlimited sun exposure.

Currently, there is no standard method for measuring a sunscreen's effectiveness in blocking out UVA rays.

How do I choose a sunscreen?

Sunscreens are mixed in different forms that include lotions, creams, gels, sprays and solids. When applied to the skin, they are not usually visible.

A solid stick or zinc-based sunscreen may be helpful on highly exposed skin areas such as the nose, cheeks, lips and ears. They are also more sweat resistant. Sprays and gels are easy to apply on hair-bearing areas (e. g., scalp), but they may sting because of their higher alcohol content.

In choosing a sunscreen, make sure that the product offers both UVB and UVA protection. Sunscreen ingredients are divided into physical and chemical agents. Physical agents block both UVB and UVA rays, while chemical agents may be specific for a particular wavelength.

Titanium dioxide and zinc oxide are widely available as physical agents. In the past, they gave a white pasty look when applied. Newer formulations of titanium dioxide and zinc oxide (in sunscreens and cosmetics), however, now give excellent protection without the white pasty look. Parsol 1789 (Avobenzone) and Mexoryl SX are chemical agents that provide protection against UVA rays. Mexoryl SX has been used widely in Europe for many years, but was only recently approved for use in the United States.

If a skin rash or other reaction occurs with a particular sunscreen, discontinue its use and contact your physician. However, having a side effect from one sunscreen does not mean that you are allergic to all sunscreens. Ask your physician or pharmacist to recommend several other sunscreens. Before applying sunscreen, shake the bottle and apply a small amount on your inner wrist. Wait 24 hours, and then check for any reaction before applying sunscreen to the rest of your body.

After selecting the sunscreen that corresponds to your skin type and contains ingredients that protect against both UVB and UVA rays, your final personal choice will depend on the fragrance, feel and price of the sunscreen. Most sunscreens range in price from \$4 to \$25 for a 4-ounce bottle, with an average price of \$4 to \$6. Before purchasing or using any sunscreen product, be sure to check its expiration date to ensure that it's still effective.

How do I use a sunscreen?

Sunscreen application at the start of each day, such as after shaving or before applying make-up, provides the best protection. Apply to the scalp, face, neck, ears, shoulders, legs, arms and hands, or any sun exposed surface.

Apply carefully around the mouth and eyes to avoid stinging or burning. For total body coverage, use at least 3 tablespoons or 1 ounce of any liquid sunscreen. It is important to apply the sunscreen generously, evenly and at least 30 minutes before sun exposure. This application process will allow time for the sunscreen to absorb into the skin.

If you are engaged in water sports or activities resulting in heavy perspiration, note the following re-application instructions on sunscreen labels:

Sweat Resistant

If perspiring, you will be protected up to 30 minutes; re-apply after 30 minutes.

Water-resistant

During continuous water exposure, you will be protected up to 40 minutes; re-apply after 40 minutes.

Waterproof

Protects twice as long as water resistant products (up to 80 minutes); re-apply after 80 minutes. However, no sunscreen is completely waterproof.



Don't Forget

Sunscreens are only one part of the sun safety equation. Long-sleeved clothing, wide-brim hats (4-inch brim all around), and sunglasses, are also critical. Specially treated fabrics and clothes are also available for extra sun protection.

Special Considerations

Para Aminobenzoic Acid (PABA) Sensitivity

Most of the sunscreens available on the market are PABA-free.

Alcohol-Based Sunscreens

Clear sunscreens have a high alcohol content and may produce burning or stinging regardless of the other chemical compounds they contain. Individuals with oily skin may prefer alcohol-based sunscreens.

Prescription Drugs and Sun Sensitivity

Several commonly prescribed drugs and certain anticancer drugs may make your skin more sensitive to sunlight. Therefore, use a sunscreen that provides UVB and UVA ray protection such as titanium dioxide or zinc oxide. Parsol 1789 (Avobenzone) and Mexoryl SX may be added to sunscreens to protect against UVA rays. For more information, ask your doctor, nurse, or pharmacist.

Acne-prone Skin

Looks for products that provide UVA and UVB protection, and that are labeled non-comedogenic or specifically state that they do not promote acne.



Remember to perform monthly skin examinations to look for suspicious, changing, bleeding, or new lesions. If you find a suspicious area, schedule an appointment with a qualified health professional.