

When the Patient Asks

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Q: What's the best sun protection to use?

The adverse effects of UV radiation include tanning, sunburn, premature skin aging, exacerbation of photosensitive dermatologic conditions, precancerous skin lesions, skin cancers, and eye problems such as cataracts. UVB radiation has been widely recognized as causing sun damage, but UVA radiation exposure is also harmful to the skin and eyes. Occasional use of sunscreen does not adequately protect against UV radiation.^{1,2} Fortunately for patients, more options for sun protection are available now than ever before.

›RISK FACTORS FOR SUN DAMAGE

All patients are at risk for sun damage, but those who are light-skinned, fair-haired, have lots of freckles or moles, or burn before tanning are at increased risk. Patients living or vacationing in tropical climates or at high altitudes are also at increased risk. Certain medications and medical conditions increase the risk of sun damage and warrant extra protection from UV radiation. Oral contraceptives, NSAIDs, thiazide diuretics, sulfonyleureas, tricyclic antidepressants, antibiotics, phenothiazines, and immunosuppressants can all increase sunlight sensitivity. Patients with a personal or family history of skin cancer, organ transplants, or certain autoimmune diseases are also at higher risk for sun damage.²

›AVOIDING SUN EXPOSURE

Patients should minimize sun exposure between 10 AM and 4 PM, when UV radiation is most intense. Cloud cover and water do not fully block UV rays, and UV radiation is reflected by snow and sand. UVA radiation can pass through window glass.^{1,2} Children younger than 6 months should be kept out of the sun completely. Patients

should also be counseled against the use of tanning beds.²

›SUNSCREENS

Sunscreens reduce the amount of radiation exposure but do not fully protect the skin from damaging UV rays. Sunscreens with a Sun Protection Factor (SPF) of 15 or higher are recommended. Patients with increased risk factors for sun damage should consider an SPF of 30 or higher.² SPF measures only the protection a product provides against UVB rays.^{1,2} To ensure protection against both UVA and UVB rays, patients should look for products labeled “broad spectrum” or that contain zinc oxide, titanium dioxide, or avobenzone.²

Correct application of sunscreen is necessary to ensure maximal protection. In order to adequately cover the average adult body, approximately 1 oz of sunscreen should be used to cover each of the extremities, the head and neck, the chest, the abdomen, the upper back, and the lower back.² Sunscreens should first be applied 15 to 30 minutes before sun exposure and then every 2 hours thereafter.^{1,2} An additional application 15 to 30 minutes after sun exposure can compensate for inadequate coverage during the first application.¹ “Water resistant” and “waterproof” products provide approximately 40 and 80 minutes of UV protection, respectively, during swimming or sweating.² Sunscreens should be reapplied more frequently during these activities and after using a towel to dry off. Sunscreens are most effective when used on a daily basis.^{1,2}

›PROTECTIVE CLOTHING

Clothes that provide the best photoprotection are dark colored and tightly woven. Dry clothing is more protective than wet clothing. Wide-brimmed hats or “shade caps” (similar to a baseball cap with additional material covering

the sides and back of the neck) are superior to baseball caps because they fully protect the face, neck, and ears. Straw hats must be tightly woven in order to protect against sun damage. Clothing specifically designed to be sun protective can be found in stores and on the Internet.² Additionally, laundry additives can be applied to clothing to provide extra UV protection.^{1,2}

›EYE PROTECTION

Both children and adults need sunglasses to protect their eyes. Patients should look for sunglasses that report blocking 99% to 100% of UVA and UVB radiation, carry an American National Safety Institute label, or state “UV absorption up to 400 nm.” Contact lenses do not protect the whole eye, and therefore sunglasses should still be worn. Glasses that wrap around the sides provide the most protection.^{1,2}

›THE BOTTOM LINE

All patients are at risk for sun damage. Educating patients about risk factors, sun avoidance, proper application of sunscreen, and use of protective clothing and sunglasses will help them take the actions that best protect themselves and their family members. **JAAPA**

For patient information on this topic, please turn the page.

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Patient Information

Q: What's the best sun protection to use?

▶AM I REALLY AT RISK FOR SUN DAMAGE?

Everyone is at risk for sun damage. This is true no matter what color your skin is. Ultraviolet (UV) radiation from the sun can cause tanning, sunburn, early skin aging, skin cancer, and eye problems. It may also worsen some skin diseases. If you are light-skinned, fair-haired, have lots of freckles or moles, or burn before tanning, you are at higher risk for sun damage. You are also at higher risk if you live in, or travel to, tropical climates or high altitudes. You need extra sun protection if you or someone in your family has had skin cancer, if you have a disease of the immune system (such as lupus), or if you have had an organ transplant. Some drugs can also make your skin more sensitive to sunlight. Example drugs are birth control pills, some antibiotics, the blood pressure drug hydrochlorothiazide, and the diabetes drugs glipizide and glyburide.

▶HOW DO I PROTECT MYSELF?

The best way to protect yourself depends on your risk factors for sun damage and how you live. There are four parts to sun protection. They are avoiding the sun when you can, using sunscreen, wearing protective clothing, and protecting your eyes. None of these fully protects you on its own.

▶WHEN SHOULD I AVOID THE SUN?

You can reduce your risk of sun damage by staying out of the sun between 10 AM and 4 PM. This is when UV radiation is most intense. Children younger than 6 months should be kept out of the sun. Clouds and water do not fully block UV rays. You must still take care on a cloudy day or when swimming. Window glass does not fully block UV radiation.

Many people believe that tanning beds are safe to use. They think that the tan they get helps protect their skin from further sun damage. This is not true. In fact, tanning beds give off the same harmful UV radiation as the sun. Do not use tanning beds. Suntanned skin does very little to protect the skin from further damage. The use of tanning beds has led to more skin cancers.

▶HOW DOES SUNSCREEN WORK?

Sunscreens let less UV radiation reach the skin. But they do not fully protect the skin. Sunscreens work best when used every day. The American Cancer Society says you should use sunscreens with a Sun Protection Factor (SPF) of 15 or higher. This will protect your skin from UV radiation. People with more risk factors for sun damage may want to use an SPF of 30 or higher. This will provide more protection.

SPF measures how well sunscreen protects against ultraviolet B (UVB) rays. This is only one type of UV radiation. To protect against ultraviolet A (UVA) rays too, you should look for products labeled "broad spectrum." Look also for zinc oxide, titanium dioxide, or avobenzone in the product. You can buy makeup and lip balm that contains sunscreen. Sunless tanning lotions do not provide sun protection.

Most people do not use enough sunscreen. Most people do not apply it often enough. You need 1 ounce of sunscreen, or a "palmful," for each arm and leg, the head and neck, the chest, the belly, the upper back, and the lower back. This is 9 ounces total. Apply sunscreen 15 to 30 minutes before you go out in the sun. Reapply it every 2 hours after. Applying sunscreen 15 to 30 minutes after sun exposure can make up for not applying enough the first time. Sunscreen should be applied more often

if you swim or sweat. It should be reapplied after toweling off. "Water resistant" sunscreens provide about 40 minutes of sun protection in water. "Waterproof" sunscreens provide about 1 hour and 20 minutes of protection before they need to be reapplied.

▶WHAT CLOTHING SHOULD I WEAR?

Your clothes can help to protect you from the sun. Choose dark, tightly woven fabrics. Dry clothes protect better than wet clothes. Wide-brimmed hats (those with a 2- to 3-inch brim in all directions) or "shade caps" (similar to a baseball cap with additional material covering the sides and back of the neck), are better than baseball caps. The reason is that they fully protect the face, neck, and ears. Straw hats must be tightly woven in order to block the sun. Some companies make clothing that protects from the sun. You can buy these clothes in stores or on the Internet. Some laundry detergents can make clothes more protective.

▶HOW DO I PROTECT MY EYES?

Both children and adults need sunglasses to protect their eyes. Look for sunglasses that report blocking 99% to 100% of UVA and UVB radiation. The glasses should say "UV absorption up to 400 nm." Or they should have a label from the American National Standards Institute (ANSI). Contact lenses do not protect the whole eye. If you wear contacts, you should still wear sunglasses. Glasses that wrap around the sides are best.

▶THE BOTTOM LINE

Everyone is at risk for sun damage. To protect yourself, avoid the sun when you can. Use the right type and amount of sunscreen. Wear clothing that blocks the sun. And wear sunglasses. [JAAPA](#)

