

## SUMMER SUN SAFETY

We all need some sun exposure — it's the top source of vitamin D, which helps our bodies absorb calcium for stronger, healthier bones.

But it doesn't take much time in the sun for most people to get the vitamin D they need. And repeated unprotected exposure to the sun's ultraviolet (UV) rays can cause skin damage, eye damage, immune system suppression, and skin cancer. Even people in their twenties can develop skin cancer.

Most kids get much of their lifetime sun exposure before age 18, so it's important for parents to teach them how to enjoy fun in the sun safely. Taking the right precautions can greatly reduce your child's chance of developing skin cancer.

### Facts About Sun Exposure

The sun radiates light to the earth, and part of that light consists of invisible UV rays. When these rays reach the skin, they cause tanning, burning, and other skin damage.

Sunlight contains three types of ultraviolet rays: UVA, UVB, and UVC:

1. **UVA** rays cause skin aging and wrinkling and contribute to skin cancer, such as melanoma. Because UVA rays pass effortlessly through the ozone layer (the protective layer of atmosphere, or shield, surrounding the earth), they make up the majority of our sun exposure.

Beware of tanning beds because they use UVA rays as well as UVB rays. A UVA tan does **not** help protect the skin from further sun damage; it just produces color and a false sense of safety.

2. **UVB** rays are also dangerous, causing sunburns, cataracts (clouding of the eye lens), and effects on the immune system. They also contribute to skin cancer. Melanoma, the most dangerous form of skin cancer, is thought to be associated with severe UVB sunburns that occur before the age of 20. Most UVB rays are absorbed by the ozone layer, but enough of these rays pass through to cause serious damage.
3. **UVC** rays are the most dangerous, but fortunately, these rays are blocked by the ozone layer and don't reach the earth.

What's important is to protect your family from exposure to UVA and UVB, the rays that cause skin damage.

### Melanin: The Body's First Line of Defense

UV rays react with a chemical called melanin that's found in skin. Melanin is the first defense against the sun because it absorbs dangerous UV rays before they do serious skin damage.

Melanin is found in different concentrations and colors, resulting in different skin colors. The lighter someone's natural skin color, the less melanin it has to absorb UV rays and protect itself. The darker a person's natural skin color, the more melanin it has to protect itself. (But both dark- *and* light-skinned kids need protection from UV rays because *any* tanning or burning causes skin damage.) Also, anyone with a fair complexion — lighter skin and eye color — is more likely to have freckles because there's less melanin in the skin. Although freckles are harmless, being outside in the sun may help cause them or make them darker.

As the melanin increases in response to sun exposure, the skin tans. But even that "healthy" tan may be a sign of sun damage. The risk of damage increases with the amount and intensity of exposure. Those who are regularly exposed to the sun (such as farmers, boaters, and sunbathers) are at much greater risk. A sunburn develops when the amount of UV exposure is greater than what can be protected against by the skin's melanin.

Unprotected sun exposure is even more dangerous for kids with:

- moles on their skin (or whose parents have a tendency to develop moles)
- very fair skin and hair
- a family history of skin cancer, including melanoma

You should be especially careful about sun protection if your child has one or more of these high-risk factors.

Also, not all sunlight is "equal" in UV concentration. The intensity of the sun's rays depends upon the time of year, as well as the altitude and latitude of your location. UV rays are strongest during summer. Remember that the timing of this season varies by location; if you travel to a foreign country during its summer season, you'll need to pack or buy the strongest sun protection you can find.

Extra protection is also required near the equator, where the sun is strongest, and at high altitudes, where the air and cloud cover are thinner, allowing more damaging UV rays to get through the atmosphere. Even during winter months, if your family goes skiing in the mountains, be sure to apply plenty of sunscreen; UV rays reflect off both snow and water, increasing the probability of sunburn. With these precautions, kids can safely play in the sun.

### **Avoid the Strongest Rays of the Day**

First, seek shade when the sun is at its highest overhead and therefore strongest (usually from 10 a.m. to 4 p.m. in the northern hemisphere). If kids are in the sun during this time, be sure to apply and reapply protective sunscreen — even if they're just playing in the backyard. Most sun damage occurs as a result of incidental exposure during day-to-day activities, not from being at the beach.

Even on cloudy, cool, or overcast days, UV rays travel through the clouds and reflect off sand, water, and even concrete. Clouds and pollution don't filter out UV rays, and they can give a false sense of protection. This "invisible sun" can cause unexpected sunburn and skin damage. Often, kids are unaware that they're developing a sunburn on cooler or windy days because the temperature or breeze keeps skin feeling cool on the surface.

Make sure your kids don't use tanning beds at any time, even to "prepare" for a trip to a warm climate. Both UVA and UVA/UVB tanning beds produce sunburn. And there is an increased risk of melanoma in people who have used tanning beds before the age of 35.

### **Cover Up**

One of the best ways to protect your family from the sun is to cover up and shield skin from UV rays. Be sure that clothes will screen out harmful UV rays by placing your hand inside the garments and making sure you can't see it through them.

Because infants have thinner skin and underdeveloped melanin, their skin burns more easily than that of older kids. The best protection for babies under 6 months of age is shade, so they should be

kept out of the sun whenever possible. If your baby must be in the sun, dress him or her in clothing that covers the body, including hats with wide brims to shadow the face. Use an umbrella to create shade. If your baby is younger than 6 months old and still has small areas of skin (like the face) exposed, you can use a tiny amount of sunscreen with a minimum SPF (sun protection factor) of 15 on those areas.

Even older kids need to escape the sun. For all-day outdoor affairs, bring along a wide umbrella or a pop-up tent to play in. If it's not too hot outside and won't make kids even more uncomfortable, have them wear light long-sleeved shirts and/or long pants. Before heading to the beach or park, call ahead to find out if certain areas offer rentals of umbrellas, tents, and other sun-protective gear.

### **Use Sunscreen Consistently**

With all the options available (organic or mineral? water-resistant or sweat-resistant? lotion or spray?), choosing a sunscreen for your kids can be tricky. But what matters most is the degree of protection it provides from UV rays.

Look for SPF numbers on the labels of sunscreens. Select an SPF of 30 or higher to prevent sunburn *and* tanning, both of which are signs of skin damage. Choose a sunscreen that protects against UVA and UVB rays (usually labeled as a "broad-spectrum" sunscreen).

Sunscreen sprays are convenient but should be used with caution. For starters, sprays are easy to breathe in, which can irritate the lungs. Some sprays also are flammable, so you need to avoid sparks or flames when applying them and wearing them. And, sprays make it hard to tell if you have applied enough sunscreen, which increases the risk of sunburn.

Other things to consider:

- Don't use sunscreens with PABA, which can cause skin allergies.
- For sensitive skin, look for products with the active ingredient titanium dioxide.
- If your teen or preteen wants to use a self-tanner sunscreen, be sure to get one that also has UV protection (many offer little or none).

For sunscreen to do its job, it must be applied correctly. So be sure to:

- Apply sunscreen whenever your kids will be in the sun. For best results, apply it about 15 to 30 minutes before kids go outside.
- Don't forget about ears, hands, feet, shoulders, and behind the neck. Lift up bathing suit straps and apply sunscreen underneath them (in case the straps shift as a child moves). Protect lips with an SPF 30 lip balm.
- Apply sunscreen generously — dermatologists recommend using 1 ounce (enough to fill a shot glass) to cover the exposed areas of the body.
- Reapply sunscreen often, about every 2 hours. Reapply after a child has been sweating or swimming.
- Apply a water-resistant sunscreen if kids will be around water or swimming. Water reflects and intensifies the sun's rays, so kids need protection that lasts. Water-resistant sunscreens may last up to 80 minutes in the water, and some are also sweat-resistant. But regardless of the water-resistant label, be sure to reapply sunscreen when kids come out of the water.
- Don't worry about making a bottle of sunscreen last. Stock up, and throw out any sunscreen that is past its expiration date or that you have had for 3 years or longer.

Every child needs sun protection. The American Academy of Dermatology (AAD) recommends that all kids — regardless of their skin tone — wear sunscreen with an SPF of 30 or higher. Although dark skin has more protective melanin and tans more easily than it burns, tanning is a sign of sun damage. Dark-skinned kids also can get painful sunburns.

### **Use Protective Eyewear for Kids**

Sun exposure damages the eyes as well as the skin. Even 1 day in the sun can result in a burned cornea (the outermost, clear membrane layer of the eye). Cumulative exposure can lead to cataracts (clouding of the eye lens, which leads to blurred vision) later in life. The best way to protect eyes is to wear sunglasses.

Not all sunglasses provide the same level of ultraviolet protection; darkened plastic or glass lenses without special UV filters just trick the eyes into a false sense of safety. Purchase sunglasses with labels ensuring that they provide 100% UV protection.

But not all kids enjoy wearing sunglasses, especially the first few times. To encourage them to wear them, let kids select a style they like — many manufacturers make fun, multicolored frames or ones embossed with cartoon characters.

And don't forget that kids want to be like grown-ups. If you wear sunglasses regularly, your kids may be willing to follow your example. Providing sunglasses early in childhood will encourage the habit of wearing them in the future.

### **Double-Check Medications**

Some medications increase the skin's sensitivity to UV rays. As a result, even kids with skin that tends not to burn easily can develop a severe sunburn in just minutes when taking certain medications. Fair-skinned kids, of course, are even more at risk.

Ask your doctor or pharmacist if any prescription (especially antibiotics and acne medications) and over-the-counter (OTC) medications your child is taking can increase sun sensitivity. If so, always take extra sun precautions. The best protection is simply covering up or staying indoors; even sunscreen can't always protect skin from sun sensitivity caused by medications.

### **If Your Child Gets a Sunburn**

A sunburn can sneak up on kids, especially after a long day at the beach or park. Often, they seem fine during the day but then gradually develop an "after-burn" later that evening that can be painful and hot and even make them feel sick.

When kids get sunburned, they usually experience pain and a sensation of heat — symptoms that tend to get worse several hours after sun exposure. Some also get chills. Because the sun has dried their skin, it can become itchy and tight. Sunburned skin begins to peel about a week after the sunburn. Encourage your child not to scratch or peel off loose skin because skin underneath the sunburn is vulnerable to infection.

If your child does get a sunburn, these tips may help:

- Have your child take a cool (not cold) bath, or gently apply cool, wet compresses to the skin to help alleviate pain and heat.
- To ease discomfort, apply pure aloe vera gel (available in most drugstores) to any sunburned areas.

- Give your child an anti-inflammatory medication like ibuprofen or use acetaminophen to ease the pain and itching. (Do **not**, however, give aspirin to children or teens.) Over-the-counter diphenhydramine also may help reduce itching and swelling.
- Apply topical moisturizing cream to rehydrate the skin and treat itching. For the more seriously sunburned areas, apply a thin layer of 1% hydrocortisone cream to help with pain. (Do **not** use petroleum-based products, because they prevent excess heat and sweat from escaping. Also, avoid first-aid products that contain benzocaine, which may cause skin irritation or allergy.)

If the sunburn is severe and blisters develop, call your doctor. Until you can see your doctor, tell your child not to scratch, pop, or squeeze the blisters, which can get infected and cause scarring. Keep your child out of the sun until the sunburn is healed. Any further sun exposure will only make the burn worse and increase pain.

### **Be Sun Safe Yourself**

Don't forget: Be a good role model by consistently using sunscreen of SPF 30 or greater, wearing sunglasses, and limiting your time in the sun. Doing so not only reduces your risk of sun damage — it also teaches your kids good sun sense.