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Sunscreen FAQ

Who needs sunscreen?

Everyone. Sunscreen use can help prevent skin cancer by protecting you from the sun's harmful ultraviolet rays. Anyone can get skin cancer, regardless of age, gender or race. In fact, it is estimated that one in five Americans will develop skin cancer in their lifetime.^{1,2}

What sunscreen should I use?

The American Academy of Dermatology recommends everyone use sunscreen that offers the following:

- Broad-spectrum protection (protects against UVA and UVB rays)
- SPF 30 or higher
- Water resistance

A sunscreen that offers the above helps to protect your skin from sunburn, early skin aging³ and skin cancer. However, sunscreen alone cannot fully protect you. In addition to wearing sunscreen, dermatologists recommend taking the following steps to protect your skin and find skin cancer early:

- **Seek shade** when appropriate, remembering that the sun's rays are strongest between 10 a.m. and 2 p.m. If your shadow is shorter than you are, seek shade.⁴
- **Dress to protect yourself from the sun** by wearing a lightweight long-sleeved shirt, pants, a wide-brimmed hat and sunglasses, when possible.
- **Use extra caution near water, snow and sand** as they reflect the damaging rays of the sun, which can increase your chance of sunburn.
- **Get vitamin D safely** through a healthy diet that may include vitamin supplements. Don't seek the sun.⁵

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- **Avoid tanning beds.** Ultraviolet light from the sun and tanning beds can cause skin cancer and wrinkling. If you want to look tan, you may wish to use a self-tanning product, but continue to use sunscreen with it.⁶
- **Check your birthday suit on your birthday.** If you notice anything changing, itching or bleeding on your skin, see a board-certified dermatologist. Skin cancer is highly treatable when caught early.

When should I use sunscreen?

Every day you go outside. The sun emits harmful UV rays year-round. Even on cloudy days, up to 80 percent of the sun's harmful UV rays can penetrate your skin.⁷

Snow, sand and water increase the need for sunscreen because they reflect the sun's rays.⁷

How much sunscreen should I use, and how often should I apply it?

- Most people only apply 25-50 percent of the recommended amount of sunscreen.⁸
- Apply enough sunscreen to cover all exposed skin. Most adults need about 1 ounce — or enough to fill a shot glass — to fully cover their body.
- Don't forget to apply to the tops of your feet, your neck, your ears and the top of your head.
- Apply sunscreen to dry skin 15 minutes before going outdoors.
- Skin cancer also can form on the lips. To protect your lips, apply a lip balm or lipstick that contains sunscreen with an SPF of 30 or higher.
- When outdoors, reapply sunscreen approximately every two hours, or after swimming or sweating, according to the directions on the bottle.

Broad-spectrum sunscreens protect against both UVA and UVB rays. What is the difference between the rays?

Sunlight consists of two types of harmful rays that reach the earth — UVA rays and UVB rays. Overexposure to either can lead to skin cancer. In addition to causing skin cancer, here's what each of these rays do:

- UVA rays (or aging rays) can prematurely age your skin, causing wrinkles and age spots, and can pass through window glass.
- UVB rays (or burning rays) are the primary cause of sunburn and are blocked by window glass.

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The United States Department of Health & Human Services and the World Health Organization's International Agency of Research on Cancer have declared UV radiation from the sun and artificial sources, such as tanning beds and sun lamps, to be a known carcinogen (cancer-causing substance).⁹

There is no safe way to tan. Every time you tan, you damage your skin. As this damage builds, you speed up the aging of your skin and increase your risk for all types of skin cancer.

What type of sunscreen should I use?

The best type of sunscreen is the one you will use again and again. Just make sure it offers broad-spectrum (UVA and UVB) protection, has an SPF of 30 or higher and is water-resistant.

The kind of sunscreen you use is a matter of personal choice, and may vary depending on the area of the body to be protected. Available sunscreen options include lotions, creams, gels, ointments, wax sticks and sprays.

- Creams are best for dry skin and the face.
- Gels are good for hairy areas, such as the scalp or male chest.
- Sticks are good to use around the eyes.
- Sprays are sometimes preferred by parents since they are easy to apply to children.
 - Make sure to use enough of these products to cover all exposed skin thoroughly.
 - Do not inhale these products or apply near heat, open flame or while smoking.
 - Current FDA regulations on testing and standardization do not pertain to spray sunscreens. The agency continues to evaluate these products to ensure safety and effectiveness.
- There also are sunscreens made for specific purposes, such as for sensitive skin and babies.

Some sunscreen products are also available in combination with moisturizers and cosmetics. While these products are convenient, they also need to be reapplied in order to achieve the best sun protection.

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Sunscreen also may be sold in combination with an insect repellent. The AAD recommends purchasing and using these products separately — sunscreen needs to be applied generously and often, whereas insect repellent should be used sparingly and much less frequently.

Regardless of which sunscreen you choose, be sure to apply it generously to achieve the UV protection indicated on the product label.

What is the difference between chemical and physical sunscreens?

Chemical sunscreens work like a sponge, absorbing the sun's rays. They contain one or more of the following active ingredients: oxybenzone, avobenzone, octisalate, octocrylene, homosalate and octinoxate. These formulations tend to be easier to rub into the skin without leaving a white residue.

Physical sunscreens work like a shield, sitting on the surface of your skin and deflecting the sun's rays. They contain the active ingredients zinc oxide and/or titanium dioxide. Opt for this sunscreen if you have sensitive skin.

Is a high-number SPF better than a low-number one?

Dermatologists recommend using a sunscreen with an SPF of at least 30, which blocks 97 percent of the sun's rays. Higher-number SPFs block slightly more of the sun's rays, but no sunscreen can block 100 percent of the sun's rays.

It is also important to remember that high-number SPFs last the same amount of time as low-number SPFs. A high-number SPF does not allow you to spend additional time outdoors without reapplication. All sunscreens should be reapplied approximately every two hours when outdoors, even on cloudy days, and after swimming or sweating, according to the directions on the bottle.

How can I protect my baby or toddler from the sun?

Ideally, parents should avoid exposing babies younger than 6 months to the sun's rays.

The best way to protect infants from the sun is to keep them in the shade as much as possible, in addition to dressing them in long sleeves, pants, a wide-brimmed hat and sunglasses. Make sure they do not get overheated and that they drink plenty of fluids. If your baby is fussy, crying excessively or has redness on any exposed skin, take him or her indoors. Sunscreen use should be avoided if possible in babies younger than 6 months.

Parents of infants and toddlers 6 months and older may apply a broad-spectrum, water-resistant sunscreen with an SPF of 30 or higher to their children's exposed skin that is not covered by protective clothing, according to the instructions on product label. When outdoors, sunscreen should be reapplied approximately every two hours, or as often as the label says. Sunscreens that use the ingredients zinc oxide or titanium dioxide, or special sunscreens made for infants or toddlers may cause less irritation to their sensitive skin.¹⁰

Can I use the sunscreen I bought last summer, or do I need to purchase a new bottle each year? Does it lose its strength?

Dermatologists recommend using sunscreen every day when you are outside, not just during the summer. If you are using sunscreen every day and in the correct amount, a bottle should not last long. If you find a bottle of sunscreen that you have not used for some time, here are some guidelines you can follow:

- The FDA requires that all sunscreens retain their original strength for at least three years.
- Some sunscreens include an expiration date. If the expiration date has passed, throw out the sunscreen.
- If you buy a sunscreen that does not have an expiration date, write the date you bought the sunscreen on the bottle. That way, you'll know when to throw it out.
- You also can look for visible signs that the sunscreen may no longer be good. Any obvious changes in the color or consistency of the product mean it's time to purchase a new bottle.

Will using sunscreen limit the amount of vitamin D I get?

Using sunscreen may decrease your skin's production of vitamin D.

- If you are concerned that you are not getting enough vitamin D, you should discuss your options for getting vitamin D with your doctor.
- Many people can get the vitamin D they need from foods and/or vitamin supplements. This approach gives you the vitamin D you need without increasing your risk for skin cancer.

For more information on vitamin D and UV exposure, check out the Academy's [vitamin D fact sheet](#).

Who regulates sunscreens?

Sunscreen products are regulated as over-the-counter drugs by the U.S. Food and Drug Administration. The FDA has several safety and effectiveness regulations in place that govern the manufacture and marketing of all sunscreen products, including safety data on its ingredients.

How do FDA sunscreen guidelines affect my sunscreen?

Thanks to the FDA, sunscreen labels provide you with important information about what type of UV protection a sunscreen offers and what a sunscreen can do.

On the label, you'll see whether the sunscreen:

- Is **Broad Spectrum**, which means the sunscreen protects against UVB and UVA rays and helps prevent skin cancer and sunburn.
- Has an **SPF of 30 or higher**. While SPF 15 is the FDA's minimum recommendation for protection against skin cancer and sunburn, the AAD recommends choosing a sunscreen with an SPF of at least 30.
- Has a **Skin Cancer/Skin Aging Alert** in the Drug Facts section of the label, which means the sunscreen will only prevent sunburn and will **not** reduce the risk of skin cancer and early skin aging
- Is **Water Resistant** (effective for up to 40 minutes in water) or **Very Water Resistant** (effective for up to 80 minutes in water). This means the sunscreen provides protection while swimming or sweating up to the time listed on the label.
 - Sunscreen manufacturers are banned from claiming that a sunscreen is "waterproof" or "sweat proof," as the FDA has determined that those terms are misleading.
 - Even when using a water-resistant sunscreen, you should reapply after getting out of the water or sweating.

Are sunscreens safe?

Using sunscreen, seeking shade and wearing protective clothing are all important behaviors to reduce your risk of skin cancer. Sunscreen products are regulated as over-the-counter drugs by the U.S. Food and Drug Administration.

Scientific evidence supports the benefits of using sunscreen to minimize short-term and long-term damage to the skin from the sun's rays. Claims that sunscreen ingredients are toxic or a hazard to human health have not been proven.

If you are concerned about certain sunscreen ingredients, you can select a formula that contains different active ingredients. As long as your sunscreen is broad-spectrum, water-resistant and has an SPF 30 or higher, it can effectively protect you from the sun.

I recently heard that suggests the FDA is saying many sunscreen ingredients are unsafe. Is this true?

No, but the regulatory language can be confusing. What the FDA has done is issue a proposed rule, which asks manufacturers to provide more data about the safety of several sunscreen ingredients. These sunscreen ingredients have been used in the United States for years.

Why is the FDA concerned about these sunscreen ingredients?

The FDA is asking for more safety data to find out the following:

- To what extent your skin absorbs sunscreen ingredients
- Whether absorbing sunscreen has any effects on your skin or body

What does the FDA proposed rule say?

This proposal rule classifies sunscreen ingredients.

The FDA is proposing that two ingredients are “generally recognized as safe and effective” (GRASE). These ingredients are:

- Titanium dioxide
- Zinc oxide

The FDA proposes that two other ingredients are not GRASE:

- PABA
- Tolamine salicylate

Not to worry. You won't find either of these ingredients in sunscreen legally sold in the United States.

The FDA is calling for more safety data on the following 12 ingredients before determining whether these ingredients can be classified as GRASE:

- **Ingredients commonly used in the U.S.:** ensulizole, octisalate, homosalate, octocrylene, octinoxate, oxybenzone, avobenzone.
- **Ingredients not frequently used in the U.S.:** Cinoxate, dioxybenzone, meradimate, padimate O, sulisobenzene.

Should I stop using sunscreens that contain any of the 12 ingredients that the FDA wants more safety data on?

While the FDA is asking for more data, it does not say that the ingredients are unsafe. It does not ask the public to stop using sunscreens that contain any of these ingredients.

A recent study by the FDA looked at four sunscreen ingredients and concluded that absorption of these ingredients into the body supported the need for additional safety data. However, the study noted that the data do not conclude that there are any effects on a person's health and more research would be needed before it that can be determined. Importantly, the study authors stated that individuals should continue to use sunscreen.

Why is sunscreen regulated by the FDA?

In the United States, sunscreen is classified as an over-the-counter (OTC) drug. This means it's a drug that you can buy without a prescription.

The FDA classifies anything "intended to diagnose, cure, mitigate, treat, or prevent disease" as a drug. Sunscreen is classified as a drug because it can:

- Prevent sunburn
- Reduce skin cancer (if it's broad spectrum)
- Decrease early skin aging (if it's broad spectrum)

The FDA is required to monitor OTC drugs. Part of this responsibility requires the FDA to determine which ingredients are GRASE and publish these in a document called a monograph.

If the FDA considers ingredients in a sunscreen as GRASE, then the product can be manufactured without going through an FDA approval process.

What does it mean that the FDA has issued this 'proposed rule'?

A proposed rule is the first step in the FDA's regulatory process. When the FDA issues a proposed rule, it asks industry and other interested parties to submit comments, additional data, or both within 90 days. For this current proposed rule on sunscreen, the deadline for submitting data and comments is May 28, 2019.

The FDA must deliver its final monograph by November 26, 2019, as required by Congress.

What happens after the FDA delivers its monograph?

Once the finalized monograph is put into effect, any sunscreen that contains active ingredients that are not in the monograph must go through a New Drug Application (NDA) process. The sunscreen cannot be sold in the United States until it goes through this process and gets FDA approval.

Does the FDA's proposed rule address any environmental concerns about sunscreen ingredients, namely oxybenzone and octinoxate?

No, it doesn't specifically ask for this information.

Are spray sunscreens safe?

The FDA continues to evaluate the safety and effectiveness of spray sunscreens. The challenge in using sprays is that it is difficult to know if you have used enough sunscreen to cover all sun-exposed areas of the body, which may result in inadequate coverage. When using spray sunscreen, make sure to spray an adequate amount and rub it in to ensure even coverage.

To avoid inhaling spray sunscreen, never spray it around or near the face or mouth. Spraying the sunscreen into your hands and then applying it can help you avoid inhalation while also ensuring adequate coverage. When applying spray sunscreens on children, be aware of the direction of the wind to avoid inhalation.

How do I treat a sunburn?

It's important to begin treating a sunburn as soon as possible. In addition to stopping further UV exposure, dermatologists recommend treating a sunburn with:

- Cool baths to reduce the heat.
- Moisturizer to help ease the discomfort caused by dryness. As soon as you get out of the bathtub, gently pat yourself dry, but leave a little water on your skin. Then apply a moisturizer to trap the water in your skin.
- Hydrocortisone cream that you can buy without a prescription to help ease discomfort.
- Aspirin or ibuprofen. This can help reduce the swelling, redness and discomfort.
- Drinking extra water. A sunburn draws fluid to the skin surface and away from the rest of the body. Drinking extra water prevents dehydration.

Do not treat sunburns with “-caine” products (such as benzocaine).

If your skin blisters, you have a second-degree sunburn. Dermatologists recommend that you:

- Allow the blisters to heal untouched. Blisters form to help your skin heal and protect you from infection.
- If the blisters cover a large area, such as the entire back, or you have chills, a headache or a fever, seek immediate medical care.

With any sunburn, you should avoid the sun while your skin heals. Be sure to cover the sunburn every time you head outdoors.

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