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# Sunburn Reasons & Remedies

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While most people love the feeling of the warm sun on their faces, they also hate the intense discomfort of sunburn. Sunburn occurs when prolonged exposure to the sun's UV radiation causes irreparable damage to skin cells. Skin cells contain melanin, which can safely absorb UV rays of the sun. But the capacity of melanin to absorb UV radiation can be quickly overwhelmed in intense sunlight. UV rays that are not absorbed by melanin can damage DNA inside the cell, destroy skin cells and stimulate inflammation, resulting in the redness, pain and itching of sunburn.

Many things can affect a person's ability to sunburn, including:

- > **Skin tone:** People with fair skin, light hair and blue eyes are the most susceptible to sunburns because their skin contains the least amount of melanin. Skin of any color, however, can get burned with prolonged exposure to intense sun.
- > **Drugs:** Certain medications can make the skin more sensitive to getting a sunburn, even in people who don't usually burn. Many of these medications are quite common, including antibiotics like Cipro (ciprofloxacin), anti-anxiety medicines like Xanax (alprazolam) and even some chemotherapeutic agents like methotrexate.
- > **Genetics:** Uncommon genetic disorders, like albinism and xeroderma pigmentosum, can increase susceptibility to sun damage and sunburns. People with these conditions need to be extremely careful about protecting their skin in the sun.

Although many popular remedies for sunburn exist, few of them have been tested in objective scientific studies to evaluate their effectiveness. Here's what we know about a few common treatments:

- > **Nonsteroidal anti-inflammatory drug (NSAID) pain relievers:** Studies suggest that taking an oral NSAID, like ibuprofen, may shorten the course of sunburn if the medicine is taken before the redness of the skin develops or even before exposure to the sun. NSAIDs taken after redness will reduce pain but have little ability to reverse the injury to skin cells.
- > **Topical aloe vera gel:** Some clinical studies show that aloe vera gel, which contains some anti-inflammatory chemicals, may help healing of thermal burns due to heat, but there is no data on its effects on sunburn. Like other moisturizers or emollients, however, aloe vera gel provides temporary soothing of the discomfort of sunburn.

> **Topical corticosteroids:** Applying anti-inflammatory corticosteroid ointments to the skin before redness develops may reduce the total time you have a sunburn. Using corticosteroid ointments once the sunburn is full blown also soothes the symptoms of itching and pain.

> **Antihistamines:** Oral or topical antihistamines, such as Benadryl (diphenhydramine), can reduce itching associated with sunburn. Oral antihistamines also have a sedating effect that may help when pain prevents restful sleep.

> **Topical anesthetics:** No scientific studies have shown that using topical anesthetics, like Solarcaine (lidocaine) or Lanacane (benzocaine), on the skin lessen the sun's damage, but the cooling feeling of these sprays and lotions should temporarily reduce the pain of sunburn.

While these remedies will relieve symptoms, most sunburns will heal on their own within three to five days. Rarely, severe sunburns will result in blistering, swelling, fevers, chills and/or weakness that require further medical attention.