Medications and Sun Sensitivity

Protect Yourself From the Sun

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What Is Photosensitivity?

Photosensitivity is a skin reaction (i.e. rash) that occurs after exposure to ultraviolet (UV) radiation from the sun or an artificial light source.

Photosensitivity can be caused by various agents, including drugs, perfume, cosmetics, and even the sunscreen that is meant to protect your skin. It is estimated that 1 in 100 people show some signs of photosensitivity.

The condition can occur even after brief exposure to sunlight in both warm and cold weather.

Some people continue to be sensitive to sunlight for a long time after discontinuing use of the offending medication or lotion.

What Are Phototoxic Reactions?

Reactions can be phototoxic or photoallergic. Phototoxic reactions account for 95 percent of all cases of photosensitivity. They occur as a result of ingesting certain drugs, and their incidence and severity have been directly linked to the drug dosage and amount of UV exposure.

In a phototoxic reaction, drug molecules absorb the energy of a specific UV wavelength, which causes the molecule to undergo a chemical change and emit energy that damages surrounding tissues.

The reaction is often immediate. It usually occurs after the first dose and within 24 hours of taking the drug and being exposed to the sun. Symptoms include areas of severe
redness on the areas of the skin exposed to light - an exaggerated sunburn with severe tenderness.

- How to Treat a Sunburn

For drugs taken in high doses, blisters, edema (swelling), and urticaria (hives) may also be present. These symptoms usually resolve within 2 to 7 days of withdrawing from the drug therapy.

Drug categories which are associated with photosensitivity include but are not limited to:

- NSAIDs
- diuretics
- antibiotics
- tricyclic antidepressants

What Are Photoallergic Reactions?

Photoallergic reactions are caused by the reaction of a topical ointment with the UV radiation. Topical ointments are applied directly to the skin.

Reactions may develop after 1 to 10 days of exposure, but will often re-occur within 24 to 48 hours of re-exposure.

In a photoallergic reaction, the drug or ointment, which also includes cosmetic creams and sunscreens, absorbs the UV energy and binds to the protein in the skin, causing an allergic rash.

A photoallergic reaction may occur in areas not exposed to the sun, and is likely to happen with even a small amount of the irritating topical agent.

Preventative Measures and Recommendations

If you are taking any of the drugs thought to cause photosensitivity, your best bet is to avoid sun exposure. If you must venture outside, minimize your exposure in terms of duration, time of day, and with what you wear.

Light-colored clothing, long-sleeved shirts, long pants or skirts, sunglasses, a sunscreen that is rated SPF-15 or higher, and a wide-brimmed hat are important protection, but they will not totally block UV radiation.

Sunscreens containing physical blockers such as zinc oxide and/or titanium dioxide are recommended as a preventative measure against sun sensitivity.

- Drug Monograph: Sunscreens
- Sunscreen Mistakes

Drugs Associated with Photosensitivity Reactions

Antibiotics
Doxycycline (Vibramycin and others)
Floxin
Minocycline
Tetracycline

Disease-Modifying Agents (to treat rheumatoid arthritis and lupus)
Dapsone
Gold
Hydroxychloroquine (plaquenil)
Methotrexate
Sulfasalazine (Azulfidine)

NSAIDs
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Antihypertensives
- Captopril
- Diltiazem
- Metyldopa
- Nifedipine

Hypoglycemics
- Glipizide
- Glyburide
- Tolbutamide

Antidepressants
- Amitriptyline
- Desipramine
- Doxepin
- Imipramine
- Nortriptyline
- Trazodone

Antihistamines
- Benadryl and others

Diuretics
- Chlorothiazide (Diuril)
- Furosemide (Lasix)
- Hydrochlorothiazide

Others
- Oral contraceptives
- Xanax

Answer provided by Scott J. Zashin, M.D., clinical assistant professor at University of Texas Southwestern Medical School, Division of Rheumatology, in Dallas, Texas. Dr. Zashin is also an attending physician at Presbyterian Hospitals of Dallas and Plano. He is a fellow of the American College of Physicians and the American College of Rheumatology and a member of the American Medical Association. Dr. Zashin is author of *Arthritis Without Pain - The Miracle of Anti-TNF Blockers* and co-author of *Natural Arthritis Treatment*.

Source:
Marshall, J., Drug Induced Photosensitivity, PhD Pharmacy Letter, vol.14 no.7 p.25

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