

lupus **FACT SHEET**

SUN SAFETY

Photosensitivity and Lupus

Photosensitivity, or increased sensitivity to sunlight, is common among people who have systemic lupus erythematosus, or lupus. Sun exposure can cause rashes (including the butterfly or malar rash) and lesions or trigger flare-ups of the disease that could affect internal organs, so it is important to protect yourself. As many as three-quarters of people with lupus are photosensitive.

Why are people with lupus photosensitive?

The reasons for photosensitivity in people with lupus are unclear. Several studies have looked at the role of different wavelengths of UV light in lupus. UV is divided into UVA, UVB and UVC (which does not reach us because it is absorbed by the atmosphere). Studies from the 1960s suggested that UVB was most important in causing photosensitivity in lupus, but more recent research shows that UVA is also partly responsible.

It is thought that, when exposed to sunlight, skin cell proteins and genetic material such as DNA and RNA start a reaction in people who are genetically predisposed. UV light causes skin cells to express particular proteins on their surface. These proteins, including one known as “Ro,” may be the targets of antibodies, which latch on to them. The attached antibodies are thought to attract white blood cells, which attack the skin cells. This leads to inflammation and causes a rash. Normally, cells that are damaged die naturally through a process called “programmed cell death,” or “apoptosis.” The body then gets rid of the dead cells. In lupus,

this cell death in the skin seems to occur too frequently, which may cause more inflammation.

It is thought that another possible factor that leads to a rash in people with lupus are substances produced in the skin after sun exposure that encourage inflammation and redness. Researchers are working to find the reasons for these abnormal reactions.

What kind of skin problems could happen?

Sun exposure can cause different types of rashes in people who have lupus. One is *acute cutaneous lupus erythematosus (ACLE)*, better known as the butterfly or malar rash that appears on the face, across the bridge of the nose. It usually heals within weeks without scarring.

Another type is *discoid lupus erythematosus (DLE)*, which appears as disk-shaped lesions on skin that has been exposed to the sun. They develop slowly and may take months to heal. They may leave scars.

Subacute lupus erythematosus (SCLE) appears as red circles on the arms, chest and back. It may look scaly, like psoriasis, and heals over weeks or months. It may occur again with more sun exposure.

(Note that both DLE and SCLE may also occur in people who do not have systemic lupus.)

How to protect yourself from the sun:

Wear a broad-brimmed hat and clothing with a tight weave, including a long-sleeved shirt and long pants. Consider buying special sun-protection garments if you are very sensitive.

Use sunscreen with a Sun Protection Factor (SPF) of at least 15 on any exposed skin. Make sure it is a broad-spectrum sunscreen (it should have both UVA and UVB protection). Apply liberally 15 to 30 minutes before going out. Re-apply after vigorous activity, such as swimming, and toweling off or

*Use sunscreen
with a Sun
Protection Factor
(SPF) of at least
15 on any
exposed skin*

excessive sweating and rubbing, even if the sunscreen label says it is “water-resistant” or “waterproof.”

Avoid going outside without protection, especially between 11 a.m. and 4 p.m. during the summer

months. When possible, stay in the shade.

Do not use sunlamps or tanning beds. There is no such thing as a “safe tan” or a “base tan.”

People who are very sensitive to UV light may wish to avoid using fluorescent tube lights and use photocopiers with the lid closed.

Windows in your house and car do not filter out UV rays.

Some medications increase the effects of the sun on the body. People with lupus who take these drugs, including tetracycline antibiotics and many others, may burn very easily – this is called a “phototoxic” reaction. Check with your doctor or pharmacist if you should wear extra sun protection while taking these drugs.

Systemic Lupus Erythematosus is an autoimmune disease that affects thousands of Canadians, mostly women in their child-bearing years. Symptoms vary greatly from patient to patient and treatment is highly individualized. Patients are urged to contact their physician or health professional with any questions or concerns they might have. Opinions expressed on these fact sheets do not reflect those of Lupus Canada. To learn more about lupus, read the other fact sheets produced by Lupus Canada.

Lupus Canada
590 Alden Road
Suite 211
Markham, Ontario
L3R 8N2
(905) 513-0004
lupuscanada@bellnet.ca
www.lupuscanada.org