

The Sun's Harmful Effects

Protecting the skin from the sun's harmful ultraviolet rays is essential in the prevention of:

- premature aging,
- cataracts,
- immune suppression, and
- skin cancer.

Premature aging and skin damage

The sun's rays can cause premature aging of the skin, including:

- premature wrinkling (due to reduced skin elasticity caused by sunlight¹),
- thickening and or developing a leathery texture to the skin, and
- brown skin spots.

Precancerous skin growths known as actinic keratoses (raised, reddish, rough-textured growths often found on the face, neck, hands, and forearms) may also develop.²

Cataracts and other eye problems



Cataracts are a type of eye damage in which loss of transparency in the lens of the eye clouds the vision.² Studies show that too much exposure to ultraviolet rays can damage the retina. Overexposure can burn the cornea, and repeated exposure over many years can change the structure of the lens so that it begins to cloud, forming a cataract.³ Other kinds

of eye damage may include pterygium (tissue growth that can block vision), skin cancer around the eyes, and degeneration of the macula (the part of the retina where visual perception is most acute).²

Immune suppression

The immune system is the bodily system that protects against and fights disease or infection. Scientists have found that overexposure to ultraviolet radiation may suppress proper functioning of the body's immune system and the skin's natural defenses. All people, regardless of color, might be vulnerable to immune suppression effects.²

Skin cancer

There are three common types of skin cancer that can develop. In fact, the incidence of skin cancer in America is epidemic; 1 in 5 Americans will develop skin cancer in their lifetime, and 1 American dies of this disease every hour.

- Melanoma is the most serious form of skin cancer and one of the fastest-growing types of cancer in the U.S.



- Basal cell carcinomas are the most common type of skin cancer, usually appearing as small, fleshy bumps or nodules on the head and neck, but they can occur in other areas. This type of cancerous tumor can penetrate the bone and cause considerable damage.



- Squamous cell carcinomas may appear as nodules or red scaly patches. This cancer can develop into large masses (unlike basal cell) and can spread to other parts of the body (much less common in basal cell).



Nonmelanoma skin cancers (basal cell and squamous cell) are less deadly than melanoma, but left untreated they can spread and cause disfigurement and serious health problems.²

Sources:

1. Lewis, C. (2003). Sunning for science: The effects of common substances on sun-exposed skin. Retrieved May 20, 2005. From <http://www.cfsan.fda.gov/~dms/fdacsun2.html>.
2. United States Environmental Protection Agency (2004). Health effects of overexposure to the sun. Retrieved May 20, 2005. From <http://www.epa.gov/sunwise/uvandhealth.html>.
3. Federal Trade Commission (1997). Indoor tanning. Retrieved May 20, 2005. From <http://www.ftc.gov/bcp/online/pubs/health/indootan.htm>.