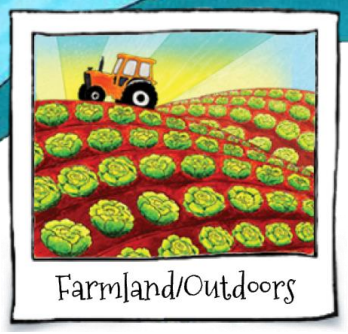

RadTown USA

UV Radiation and Sun Exposure

Tanning is your body's attempt to protect itself from being damaged by ultraviolet radiation.

- Too much ultraviolet radiation (UV) from sunlight is dangerous.
- Nearly half of UV radiation is received between 10 a.m. and 4 p.m., when the sun's rays are the strongest.
- Even on a cloudy day, you can be sunburned by UV radiation.

About UV Radiation and Sun Exposure

We've all heard the phrase, "a healthy tan," but there is no such thing. Tanning is your body's attempt to protect itself from being damaged by ultraviolet radiation. We need *some* exposure to sunlight to help our bodies make vitamin D. However, too much ultraviolet radiation (UV) is dangerous.

UV wavelengths are divided into three types or bands:

UVA

- The atmosphere has little effect on these rays - most UVA radiation reaches Earth's surface.
- UVA rays cause sunburn, skin aging, and eye damage and can lower your body's ability to fight off illness.

UVB

- The atmosphere has a very strong effect on UVB rays - where there is less ozone, more UVB radiation can reach Earth's surface.
- UVB rays cause sunburns, skin cancer, skin aging and snow blindness and can lower your body's ability to fight illness.

UVC

- The atmosphere has a very strong effect on UVC rays - almost all UVC rays are absorbed by ozone, water vapor, oxygen and carbon dioxide.
- Few UVC rays reach Earth's surface and harmful effects from UVC rays are minimal.

The UV radiation that reaches Earth's surface is mostly UVA and some UVB. Almost half the daytime total of UV radiation is received between the hours of 10 a.m. and 4 p.m. Even on a cloudy day, you can be sunburned by UV radiation.

Skin cancer is the most common form of cancer in the United States. Melanoma, the most serious type of skin cancer, is increasing faster than most other forms of cancer. While everyone should protect themselves against UV radiation, it is particularly important to protect children. Most of an average person's UV exposure from the sun occurs before the age of 18. Too much UV exposure or frequent sunburns, particularly during childhood, can make developing melanoma more likely.

Rules and Guidance

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA sponsors the SunWise[i] program. SunWise teaches the public how to avoid overexposure from the sun. SunWise provides tools to classrooms, schools and communities to develop lifelong sun-safe behavior.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

The UV Index predicts the next day's ultraviolet radiation levels on a 1 to 11+ scale. This information helps people plan how they'll protect themselves from the sun.

WORLD HEALTH ORGANIZATION (WHO)

The United States and Canada adopted the WHO revised UV Index guidelines and applied them to their current UV Indices in 2004.

U.S. NATIONAL INSTITUTES OF HEALTH (NIH)

NIH provides prevention, screening and treatment information for skin cancer. Together with EPA and the Centers for Disease Control and Prevention (CDC), NIH researches methods to protect against the sun's harmful rays and provides helpful information to the public.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS), U.S. FOOD AND DRUG ADMINISTRATION (FDA)

FDA sets rules for the makers of sunscreens. The rules apply to product labeling and advertising. FDA ensures that the Sun Protection Factor (SPF) for sunscreen is clearly written on its label and that consumers can understand its meaning easily.

What you can do

There are simple steps you can take to limit exposure to UVA and UVB rays, even on cloudy days.

- **Limit time in the midday sun:** The sun's rays are strongest between 10 a.m. and 4 p.m. Limit exposure to the sun during these hours, even in winter and especially at higher altitudes.
- **Do not burn:** Sunburns significantly increase the lifetime risk of developing skin cancer, especially for children.
- **Seek shade:** Shade is a good source of protection. However, keep in mind that trees, umbrellas and canopies do not offer complete sun protection.
- **Use extra caution near water, snow and sand:** These three materials reflect the damaging rays of the sun, which can increase your chance of sunburn.
- **Avoid sun tanning and tanning beds:** UV light from tanning beds and the sun can cause skin cancer and wrinkling.
- **Wear protective clothing**: Wide brimmed hats offer good sun protection to your eyes, ears, face and neck. Sunglasses that provide 99 to 100 percent UVA and UVB protection will greatly reduce eye damage from sun exposure. Tightly woven, loose fitting clothes will provide additional protection from the sun.
- **Always use sunscreen**: Apply a broad-spectrum sunscreen with a SPF of 15 or higher on all exposed skin 20 minutes before going outside. Reapply every two hours, or after working, swimming, playing or exercising outdoors.

- **Watch the UV Index**: The UV Index provides important sun safety information to help people plan outdoor activities.

Regardless of your exposure to UV rays, conduct a monthly self skin exam to look for any abnormalities. Look for bumps or sores that don't heal or for moles that have changed size, color or shape. Have a friend or family member check your back and your scalp and visit your physician or a dermatologist to get skin checks annually. When caught early, most cases of skin cancer can be cured.

Where to learn more

You can learn more about UV radiation and sun exposure by visiting the resources available on the following webpage: http://www3.epa.gov/radtown/uv-sun-exposure.html#learn-more.

[i] http://www2.epa.gov/sunwise