As the growing season approaches, sports turf managers will be hard at work outdoors. Turf managers face many potential hazards in their line of work from machinery injuries to chemical exposures from fertilizers and pesticides. One danger that may not be as visible comes from the sun’s ultraviolet rays. While turf managers rely on the sun for grass and plants to flourish, they often don’t realize too many of these invisible rays may damage their skin, leading to skin cancer, premature aging of the skin, and suppression of the immune system.

Turf managers at increased risk of skin cancer

Editor’s note: Thanks to STMA Board member Jeff Fowler, Penn State extension office, and the Pennsylvania Cancer Control Consortium (PAC³) for supplying this article.

Ingredients to look for on the sunscreen label to ensure broad-spectrum UV coverage include:
- oxybenzone
- octyl methoxycinnamate
- cinoxate
- sulisobenzone
- octyl salicylate
- menthyl anthranilate
- titanium dioxide
- zinc oxide
- avobenzone (Parsol 1789)
- ecamsule (Mexoryl SX)

MELANOMA NEEDS EARLY DETECTION

This year more than 1 million new cases of skin cancer will be diagnosed in the United States. Recent studies prove a link between sunburn and increased risk for melanoma, the deadliest form of skin cancer. One person every hour dies from melanoma in the United States. The good news is that melanoma is highly curable if detected on the skin at an early stage. The risk of melanoma can be reduced by protecting the skin from the sun and its harmful ultraviolet rays.

Sunlight consists of two types of harmful rays: ultraviolet A (UVA) rays and ultraviolet B (UVB) rays. UVB rays (which pass through window glass) penetrate deeper into the dermis, the thickest layer of the skin. UVA rays can cause suppression of the immune system, which interferes with the immune system’s ability to protect you against the development and spread of skin cancer. UVA exposure also is known to lead to signs of premature aging of the skin, such as wrinkling and age spots. The UVB rays are the sun’s burning rays (which are blocked by window glass) and are the primary cause of sunburn. A good way to remember it is that UVA rays are the aging rays and UVB rays are the burning rays. Excessive exposure to both forms of UV rays can lead to the development of skin cancer.

The U.S. Department of Health & Human Services has declared ultraviolet (UV) radiation from the sun and artificial sources, such as tanning beds and sun lamps, as a known carcinogen (cancer-causing substance).

MEN MORE AT RISK

Men are more likely to die from melanoma most likely due to late detection. Common locations where melanoma can develop include the back, arms, neck and shoulders. Women get more melanomas on their legs. Turf managers with years of outdoor sun exposure are more likely to develop sun damage and can lead to the development of melanoma. The Melanoma International Foundation urges everyone to examine their skin regularly, and your loved ones, too. This means looking over your entire body including your back, your scalp, the soles of your feet, between your toes and the palms of your hands. If there are any changes in the size, color, shape or texture of a mole, the development of a new mole, or any other unusual changes in the skin, see your primary care physician or a dermatologist as soon as possible.

WEAR LIGHT-COLORED CLOTHING

Since turf managers spend a great deal of time working outdoors, it’s important for them to understand the many ways to protect their skin so that they can reduce their chances of developing skin cancer. Clothing protection is most important in protecting the skin.

Hats can protect the most vulnerable head and neck areas from the sun’s rays. While baseball-type caps will protect the top of the head, they don’t protect other important areas including the ears, nose and neck. Turf managers should wear wide-brimmed hats. The recommendation is to wear a hat that has at least a 4-inch brim. Long-sleeved shirts and long pants will help protect the arms and legs. Wearing tightly woven lightweight and light-colored fabric can actually keep the body cooler in the sun and will protect against cancer-causing rays. There are many companies that manufacture high quality, sun-protective clothing. And there is a sun-protective solution by Rit Dye that you can wash into everyday clothing to make it protective.

CHOOSE WATERPROOF SUNSCREEN EVEN ON CLOUDY DAYS

You should apply sunscreen every day to exposed skin—and not just if you are going to be in the sun. While UVB rays cannot penetrate glass windows, UVA rays can, leaving you prone to these damaging affects if unprotected. For sunny days when you are going to be indoors, apply sunscreen on the areas not covered by clothing, such as the face and hands. Sunscreens can be applied under makeup, or alternatively, there are many cosmetic products available that contain sunscreens for daily use.

Don’t reserve the use of sunscreen only for sunny days. Even on a cloudy day, up to 80% of the sun’s ultraviolet rays can pass through the clouds. Sunscreen should be applied to dry skin 15-30 minutes BEFORE going outdoors.
When using sunscreen, be sure to apply it to all exposed areas, and pay particular attention to the face, ears, hands and arms. Coat the skin liberally and rub it in thoroughly; most people apply only 25-50 percent of the recommended amount of sunscreen. One ounce, enough to fill the palm of your hand, is considered the amount needed to cover the exposed areas of the body properly. Don’t forget that lips get sunburned, too. Apply a lip balm that contains sunscreen with an SPF of 15 or higher. Be sure to toss outdated sunscreen, as it will have lost its effectiveness. Reapply sunscreen frequently during the day.

There are so many types of sunscreen that selecting the right one can be confusing. Sunscreens are available in many forms, including ointments, creams, gels, lotions, sprays and wax sticks. The type of sunscreen you choose is a matter of personal choice. Creams are best for individuals with dry skin, but gels are preferable in hairy areas, such as the scalp or male chest. Sticks are good around the eyes. Creams typically yield a thicker application than lotions and are best for the face.

Ideally, sunscreens should be water-resistant, so they cannot be easily removed by sweating or swimming, and should have an SPF of 15 or higher that provides broad-spectrum coverage against both UVA and UVB light. Ingredients to look for on the sunscreen label to ensure broad-spectrum UV coverage include: oxybenzone, octyl methoxycinnamate, cinoxate, sulisobenzone, octyl salicylate, methyl anthranilate, titanium dioxide, zinc oxide, avobenzone (Parsol 1789), ecamsule (Mexoryl SX)

Although working outdoors when the sun is less intense, before 10 a.m. or after 4 p.m., may not be feasible, sometimes rescheduling chores where exposure is lessened can be achieved. Seeking shade may have obstacles, but creating shade where you work with an umbrella or an awning is a great idea. You certainly now see more mowers, carts and utility vehicles with a canopy to protect the operator from exposure to the elements.

If you notice a mole on your skin, you should follow the simple ABCDE rule, which outlines the warning signs of melanoma:

- **Asymmetry-One half does not match the other half.**
- **Border irregularity-The edges are ragged, notched or blurred.**
- **Color-The pigmentation is not uniform.** Different shades of tan, brown or black are often present. Dashes of red, white and blue can add to the mottled appearance.
- **Diameter-While melanomas are usually greater than 6 mm in diameter when diagnosed, they can be smaller. If you notice a mole that is different than others, or if you notice a mole that changes, itches or bleeds, even if it is smaller than 6 mm, you should see a dermatologist.**
- **Evolving-You should always be suspicious of a new or changing mole on your skin.**

It’s never too late to protect yourself from the sun and minimize your future risk of skin cancer. Understanding how to best protect your skin from the sun can help prevent melanoma, the deadliest form of skin cancer.

**FOR MORE INFORMATION**
Melanoma International Foundation, www.melanomaintl.org
American Academy of Dermatology, www.aad.org

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