

Sun Protection for Rowers

Rowers spend a great deal of time under the sun while on the water. Sun damage comes from above and below, as it is reflected off the water. A comprehensive sun protection program includes proper use of sunscreen, wearing protective clothing, limiting exposure during peak hours, seeking shade and avoiding deliberate tanning with indoor or outdoor light. The most important product available to prevent skin cancer is sunscreen.

This is not intended to serve as medical advice. Please check with your physician for specific information and personal health care issues.

Exposure to ultraviolet light, UVA or UVB from sunlight accounts for 90% of the symptoms of premature aging and skin cancers. Skin cancer is the most common form of cancer in the United States, with more than 1 million new cases diagnosed every year.

"Sunburn is a common injury and one that is highly preventable," stated Richard F. Wagner, MD., Professor of Dermatology, Department of Dermatology, University of Texas Medical Branch, Galveston, Texas.

Facts about UV Radiation

UV radiation is divided into categories based on wavelength. There are three kinds of UV rays: UVA, UVB and UVC. UVC is absorbed by the atmosphere and does not cause skin damage. UVB radiation affects the outer layer of skin, the epidermis. It is the primary agent responsible for sunburns. UVB does not penetrate glass and its intensity varies with the time of day and the season. UVA radiation penetrates deeper into the skin and works more efficiently. The intensity of UVA radiation is more constant than UVB and is not filtered by glass.

Sunscreen ingredients can be divided into compounds that physically block radiation or ones that absorb radiation. The radiation blockers are very effective at reducing the exposure of the skin to both UVA and UVB radiation. Older formulations like zinc oxide are opaque and may be cosmetically unacceptable. However newer formulation of micronized titanium dioxide is not as opaque and provides excellent protection. The radiation absorbing ingredients are differentiated by the type of radiation they absorb.

The SPF measures the amount of UVB absorption. There is no method of reporting the UVA absorption. A sunscreen will protect against both forms of radiation if it is listed on the label. A good broad spectrum sunscreen should have an SPF of at least 15 and contain avobenzone, titanium dioxide or zinc oxide. Dr. Wagner conducted a study of beach goers in Galveston, Texas and found that "failure to use the sunscreen appropriately" was the major cause of sunburn.

Sunscreen Application:

Sunscreen should be applied liberally enough to all sun-exposed areas so that it forms a film when initially applied. Application to the face, neck, shoulders, arms and legs is obvious. Less obvious but necessary areas includes, eyelids, ears, hands and even scalp if the rower is not wearing a hat. It takes 20-30 minutes for sunscreen to be absorbed by the skin so application just before taking out the boat or once in the boat is ineffective. Application should be done at least 30 minutes before going out in the sun and should be the last product applied since some sunscreens can break down in the presence of water based foundations or moisturizers.

Sunscreen Reapplication:

Most instructions recommend reapplying sunscreen "frequently, but the definition is vague. A recent study by the American Academy of Dermatology found that people who waited more than 2.5 hours to reapply their sunscreen had five times more chance of getting sunburned than those who reapplied every 2 hours. Reapplying after strenuous activity or if a rower gets wet, is also recommended.

Daily Use:

Sunscreen should be applied daily. The daily use of a low SPF sunscreen (15) has been shown to be more effective in preventing skin damage than the intermittent use of higher SPF. Also be aware that a higher SPF sunscreen is needed when using an insect repellent and sunscreen together. Insect repellents reduce the sunscreen's SPF by one third.

Other Sources of Sun Protection:

Wear a hat.

A hat with at least a 3-inch brim all around is ideal because it can protect areas often exposed to the sun, such as the neck, ears, eyes, and scalp. A shade cap (which looks like a baseball cap with about 7 inches of material draping down the sides and back) also is good. These are often sold in sports and outdoor clothing and supply stores.

A baseball cap or visor provides only limited protection but is better than nothing.

There are hats and clothing that provide SPF protection. They can be found by on the internet by using "Google".

Wear sunglasses.

Sunglasses can help protect your eyes from sun damage.

The ideal sunglasses don't have to be expensive, but they should block 99 to 100 percent of UVA and UVB radiation. Check the label to see that they do. If there's no label, don't buy the glasses. And, don't go by how dark the glasses are because UV protection comes from an invisible chemical applied to the lenses, not from the color or darkness of the lenses.

Large-framed wraparound sunglasses are best because they can protect your eyes from all angles.

You may want to put sunscreen on the eyelids and around the eyes, too, even if you're wearing sunglasses. Sunglasses prevent UV rays from getting into the eyes; they won't help protect the skin around them.

Recommendations of the American Academy of Dermatology for effective sunscreen use:

1. Wear a broad spectrum sunscreen with sun protection (SPF) of *at least* 15.
2. Use the sunscreen every day if you are going to be in the sun for more than 20 minutes.
3. Apply sunscreen to dry skin 30 minutes before going outdoors.
4. When applying sunscreen, pay attention to the face, neck, ears, hands, arms. Generously coat the skin not covered by clothing.
5. Reapply sunscreens every 2 hours or immediately after getting wet or strenuous activity.
6. **Overcast weather** still requires sunscreen in summer because 80 per cent of ultra-violet radiation is still present on cloudy days.

COACH BENNETT'S RECOMMENDATIONS:

1. Use Bullfrog Sunscreen. He says it does not come off even after a heavy workout.
2. Use a minimum SPF of 45.
3. Invest in a lightweight, long sleeved shirt in which to work out. Some have UV protection built into the fabric. Follow all washing instructions.
4. A "fisherman style" hat (like the kind worn by Coach Bennett) to be worn at practices. Can be bought on-line.

Sources:

Using Sunscreen is the Key to Avoiding Sunburn, San Diego Earth Times, July, 2001.

Proper Use of Sunscreen,
<http://dermatology.about.com/cs/skincareproducts/l/blsunscreen.htm>