



SunSafe in the Middle School Years

COACHES MANUAL



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Project Background

SunSafe in the Middle School Years is designed to improve sun protection behaviors of middle school students (10- to 13-year-olds). Originally developed in 2000, *SunSafe in the Middle School Years* was developed and tested using funding provided by the National Cancer Institute, and the project was directed by Ardis Olson, MD. At the time, the project worked with schools, coaches, town recreation programs, parents, and health care providers in 10 communities throughout Vermont and New Hampshire.

This multi-component intervention demonstrates that community members can serve as role models and educators to change youth sun protection actions and reduce skin cancer risks. Findings from the original study includeⁱ:

- Youth in the intervention communities were more likely to use sunscreen and to apply it more thoroughly than those in the control communities.
- Youth in the intervention communities reported receiving sun protection advice from more adults than those in the control communities.
- Youth in the intervention communities protected more of their body from the sun than those in the control communities.

Why Middle School Students?

Middle school is an important time to work with youth. During this age, youth are making more independent health behavior choices but are still willing to listen to adults' advice and are still influenced by the role modeling of parents, teachers, coaches, and recreation staff.

- 80% of lifetime sun exposure occurs before age 18.ⁱⁱ Less than one out of three youth protect themselves from sun damage effectively.ⁱⁱⁱ
- One or more blistering sunburns in childhood or adolescence doubles the risk of developing melanoma later in life.^{iv}
- Data from the *SunSafe in the Middle School Years*' baseline study (unpublished) shows that in 2000, 84% of middle school youth understood protecting themselves from sun damage can prevent skin cancer. However, less than one third (29%) used sunscreen, and only 7% wore a hat.

- Data from the 2019 VT Youth Risk Behavior Survey indicates little progress has been made regarding youth's sun safe behaviors since 2000. In 2019, 66% of VT middle school students reported having at least one sunburn in the past 12 months. The percent of students who had sunburns increased with each grade level.^v

Why Coaches?

- Research has found that coaches can positively influence teens' sun protection behaviors.
- Sun protection can prevent injury from sunburn.
- The intensity of UV radiation is as high in spring as it is in the summer. That means during games and practice you and your players may be exposed to high levels of UV rays for hours at a time.
- Coaches are important role models for their players.
- Sun damage to skin is cumulative – it is never too late to adopt sun safe behaviors.

How Can Coaches Help?

As a coach, you work hard to help your players be the best they can be. That includes helping them to adequately prepare for games and competitions, so they don't get injured. Helping your players practice sun safe behaviors can be thought of as another aspect of protecting them from injury.

Coaches have a dual role of teaching children how to protect themselves from the sun while modeling sun safe behavior themselves. So, how can recreation staff and lifeguards protect young people's skin from the sun?

- Practice sun safe behaviors and promote the idea that being healthy means taking care of your skin just as much as being active, working out, not smoking, and eating healthy.
- Adopt a Sun Safety policy for your teams.
- Review and download additional *SunSafe in the Middle School Years* resources: <https://cancer.dartmouth.edu/cancer-community/resources>

What is Sun Safe Behavior?

Skin protection is an important defense against skin cancer. The body's usual defense against the sun's damaging ultraviolet rays is a pigment in the skin called melanin. Some individuals have more melanin. The melanin in light brown or tanned skin provides only as much defense as a sunscreen with a Sun Protection Factor (SPF) of 4. The melanin in dark black skin provides only as much defense as a sunscreen with an SPF of 8. This means that even people with the darkest skin can get sunburns.

So, to protect your skin from the sun's harmful rays, always cover up, seek shade, and wear a broad spectrum, water-resistant sunscreen with an SPF of 30 or greater on skin exposed to the sun.

Cover Up

Wear clothing that covers your skin. Such as:

- Long sleeve shirts.
- Long pants.
- Hats. Wide-brimmed hats are best. They protect the neck, ears, eyes, forehead, nose, and scalp.
- Sunglasses that block 99 - 100% of UVA and UVB rays.

Seek Shade

Reduce UV radiation by taking shelter under a tree, umbrella, or another shady spot, especially when the radiation from the sun is most intense. The intensity of the sun's rays varies by:

- Time of day. The sun's rays are the most intense between 10 am and 4pm.
- Time of the year.
- Elevation (UV intensity generally increases with altitude).
- Reflection off surfaces (such as water or snow).
- Cloud cover.

Use Good Sunscreen and Apply Often

Use a broad-spectrum sunscreen with an SPF of at least 30.

- Apply sunscreen liberally to all exposed skin 20-30 minutes before going outside. Including lips, ears, feet, hands, bald spots, and the back of your neck.
- **Reapply sunscreen at least every 2 hours.** There is no such thing as "waterproof" sunscreen. Sunscreen may be water resistant (up to 40 minutes) or very water resistant (up to 80 minutes). However, the sunscreen should still be reapplied after swimming, sweating, or drying the skin.

Sample Sun Safety Policy

- Encourage everyone to come to practices, games, and competitions with sunscreen already applied.
 - Talk to parents about using broad-spectrum UVA/UVB, water-resistant sunscreen with an SPF of at least 30.
- Ask your team to bring sunscreen with them to practices, games, and competitions so they can reapply the sunscreen as needed.
- At the beginning of practices, games, or competitions, ask your team if they are all set to go with sunscreen. In other words, did they apply it beforehand?
 - If they do not have it on, ask them to put it on before they start.
- When you have tournaments or games that last more than 2 hours, set a reminder for both the team and you to reapply sunscreen at least every 2 hours.
 - Remember, you are a role model – one of the biggest predictors of your team practicing sun safe behaviors is to see you practicing those behaviors.
- Encourage everyone to wear sunglasses or a hat when they are on the sidelines.
 - The hat should protect the face, neck, and ears.
- When possible, host the practice in an area protected from the sun, especially from 10 am to 4 pm (the times of most intense UV radiation).
 - If you are at an all-day event, find a shaded spot or bring a pop-up tent to so that your players can relax in the shade between games.

Make it a team goal to block the sun.

- Sun protection is injury prevention.
- Encourage everyone to come to practices, games, and competitions with sunscreen already applied.
- Remind players and parents about sun protection before, during, and after games or practices.



The UV Index

The ozone shields the earth from harmful UV radiation. The thinning of the ozone layer, seasonal changes, and weather changes cause different amounts of UV radiation to reach the earth at any given time. Clear skies allow 100% of incoming radiation (what gets through the ozone) to reach the Earth's surface. The UV Index provides a daily forecast of the expected risk of overexposure to the sun. A computer model calculates the UV index based on the ozone conditions, elevation, and cloud cover.

The UV Index gives the expected UV radiation reaching the Earth's surface on a scale of 1 to 10+. The higher the number, the greater the exposure to UV radiation, and the greater the need to protect your skin. **Check the UV Index each day** to plan your sun safe activities.

In NH and VT, the UV Index on a clear day in early spring is often as high as the UV Index on a summer day. Sun damage to unprotected skin can begin within *10 minutes* on sunny days in late April or early September.

The higher the UV Index, the greater the need to protect your skin.

The UV Index can be found online at <https://weather.com>

Index Number	Exposure Level	Minutes to Skin Damage
0-2	Minimal	>60
3-4	Low	30-40
5-6	Moderate	20-30
7-9	High	10-20

ⁱ Ardis L. Olson, Cecelia Gaffney, Pamela Starr, Jennifer J. Gibson, Bernard F. Cole, Allen J. Dietrich; SunSafe in the Middle School Years: A Community-wide Intervention to Change Early-Adolescent Sun Protection. *Pediatrics* January 2007; 119 (1): e247–e256. 10.1542/peds.2006-1579. <https://doi.org/10.1542/peds.2006-1579>

ⁱⁱ Cleveland Clinic (2022). Ultraviolet Radiation and Skin Cancer.

<https://my.clevelandclinic.org/health/diseases/10985-ultraviolet-radiation>

ⁱⁱⁱ Centers for Disease Prevention and Control (2022, April). Guidelines for School Programs to Prevent Skin Cancer. https://www.cdc.gov/cancer/skin/what_cdc_is_doing/guidelines.htm

^{iv} Skin Cancer Foundation. (2021). Sunburn & Your Skin. www.skincancer.org/risk-factors/sunburn/

^v Vermont Department of Health. (2020). 2019 Vermont Youth Risk Behavior Survey Report, 173. www.healthvermont.gov/sites/default/files/documents/pdf/CHS_YRBS_statewide_report.pdf