Taking a Stand: Health Educators should Promote Skin Health among Athletes

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Non-melanoma skin cancers represent the most common type of cancer across the globe. It is estimated that there will be approximately 3.5 million new diagnoses of non-melanoma skin cancer in the United States this year alone the American Cancer Society [1]. Although non-melanoma cancers are common and slow growing, thousands of patients die each year from neglected skin cancers that spread to and interfere with vital organs of the body. Typically, non-melanoma skin cancers appear in areas of the body that have had high exposure to the sun and certain athletes are particularly prone to sun exposure with little being done to prevent skin cancer in this at risk group.

Why are Athletes Considered “at Risk?”

Athletes who train and compete outside are readily exposed to sun with limited opportunity to seek shade or cover. Furthermore, athletes may value a tanned appearance without fully understanding the potential risks of repeated and intense sun exposure. Additionally, athletes, who are often characterized as invincible, have been viewed as a group who may engage in risky behaviors, such as casual sex without condoms and sun exposure without sunscreen, without regard for resulting consequences (i.e., sexually transmitted infections and skin cancer).

This excessive sun exposure was demonstrated by Wysong et al. [2] study of 290 National Collegiate Athletic Association (NCAA) athletes who reported spending an average of 4 hours per day outside in the sun. Unfortunately, 43% of the college athletes reported never applying sunscreen while being outdoors and 31% of athletes used sunscreen only 1 to 3 times per week. Interestingly, male athletes were less likely to use sunscreen than female athletes in their study. Winter sport athletes may also face an increased risk for skin cancer. Buller et al. [3] surveyed adult skiers and snowboarders (N=4,837) to determine that only 4.4% of participants reported full compliance with sunscreen recommendations provided by the American Cancer Society. Although 73.2% of athletes who reported using sunscreen applied it 30 minutes prior to sun exposure, only 20.4% of athletes effectively reapplied sunscreen as recommended [4].

This lack of sunscreen use is particularly risky when considering the potential for athletes to receive an excessive amount of sun exposure. Ironman tri athletes were found to have UV radiation exposure levels that exceeded 30 times the levels set by the International Commission for Nonionizing Radiation Protection and the American Conference of Governmental Industrial Hygienists [5]. Dosimetry studies by Serrano et al. [6] have further confirmed the presence of high amounts of UV radiation exposure for elite athletes. For example, in a small study among cyclists (N=5) high UV exposure was recorded dosimetry over two, four-day periods in Spain. The dosimeters recorded levels of UV radiation exceeding occupational and recreational guidelines during summer and winter months. Moehrl et al. [7] found excessive UV exposure using dosimeters on a sample of cyclists (N=8) competing in a race in Switzerland. As with the study among Ironman competitors, dosimeters recorded UV radiation levels exceeding international limits by 30 times over the 8 stages of the race.

In addition to the risks associated with having excessive sun exposure and not wearing sunscreen, some athletes were found to purposively engage in sun-seeking behaviors (e.g., wearing less protective clothing, frequenting tanning beds) to obtain a bronzed appearance. Cohen et al. [8] demonstrated that high school athletes were less likely to wear protective clothing and were more at risk for increased exposure to UV radiation. Tanning behaviors may be normalized and even celebrated among athletes (e.g., dance teams, cheerleaders) as team unity or creating a consistent aesthetic Reel and Gill [9] and SooHoo et al. [10] Athletes who frequent tanning beds with their peers or who tend to compare tan lines to other athletes can be more likely to seek additional exposure for appearance-related reasons. Among university athletes, more indoor and outdoor tanning behaviors were observed compared to control [8]. Given the potential risk within the sport setting for increased sun exposure coupled with inadequate sunscreen and protective clothing use, health education is needed to reduce skin cancer and promote skin health behaviors among athletes.

Implications for Health Educators

Health educators and medical professionals should take active steps to protect athletes from skin cancer risk and to promote skin health behaviors (e.g., sunscreen use, wearing sunglasses, etc). Education should be provided to coaches, athletes, and sport facilities to adopt the following measures to reduce skin cancer risk.

1. Practice and competition times can be modified to reduce risk of skin exposure during peak hours of 10 am and 4 pm.

2. Uniforms and practice clothing that covers the skin can help the skin. If possible athletes should select clothing that integrates UV protective materials.

3. Athletes should be encouraged to apply sunscreen with a SPF of at least 15 before practices and competitions as well as to reapply frequently (i.e., every 2 hours) [2].

4. Athletes should be encouraged to wear UV protective sunglasses protect their eyes during practices and competitions.

5. Athletes should be educated about the hazards of tanning beds. Tanning can be normative for certain athletic groups. Coaches, athletic trainers, and athletes can play a role in reducing peer pressure to engage in tanning by providing other forms of socialization for team members [11].

6. Athletes can be taught to perform self-screening exams by a local dermatologist during a team meeting. Physician screenings should be encouraged among athletes.

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7. Athletes on the sidelines should be encouraged to seek shade while resting and whenever possible.

References