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Mini Review

Sun Safety in Outdoor Athletes -

Lily Park DO*, and Russell John Young MD

Department of Dermatology, Silver Falls Dermatology, Salem, OR

***Address for Correspondence:** Lily Park, Department of Dermatology, Silver Falls Dermatology, Salem, OR 97302, USA, Tel: 503-362-8385; E-mail: lilyparkstar@gmail.com

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Skin cancer is the most common form of cancer in the United States [1]. One in five Americans are projected to develop skin cancer in their lifetime [2]. Although skin cancers are known to be the most successfully treated human cancers, [3] it is estimated to cost approximately \$8.1 billion annually to treat skin cancers [4] with more than one million new diagnoses of skin cancers each year in the United States [5]. A major risk factor for skin cancer is ultraviolet (UV) radiation from sun [6]. A common strategy is to avoid sun exposure during peak UV exposure hours between 10 a.m. to 4 p.m., but it is often impractical for many outdoor enthusiasts. Prolonged UV exposure causes skin damage and results in greater skin cancer risk [7]. Despite this risk, studies revealed that the majority of outdoor collegiate athletes who responded to their surveys admitted to rarely using sunscreen [8,9].

Cloudiness may not securely protect your skin from sun damage. UV radiation may still be high and sky conditions can change rapidly [10]. Therefore, sun safety measures should still be practiced. Attempting to follow shade during exercise does not reliably protect you from UV exposure either. A study that compared shade and sunscreen found that high-SPF sunscreen provided better protection against sunburn than a beach umbrella, although the sunscreen did not completely prevent sunburn [11].

People of color also need to protect themselves from UV light. They are less likely to wear sunscreen due to the false notion that they are not at risk of skin cancer [12]. Although skin cancer is less common than in Caucasians, people of color have a higher rate of advanced and thicker skin cancer along with a higher death rate from skin cancer due to delayed diagnosis [13,14]. Programs that promoted sun safety habits to professional and recreational athletes have been successful. National Cancer Institute implemented an intervention at ski resorts in North America through an education program called "Go Sun Smart." The program logo "Use sunscreen, sunglasses, and a hat" was advertised via posters, window decals, table tents, brochures, newsletter articles, a website, and a training module with presentation. The ski lift operators received sunscreen and wide-brimmed hats. This resulted in reduced sunburn and excessive UVR exposure in skiers and snowboarders [15]. Providing select NCAA female golfers an easy access to sunscreen by placing sunscreen in their locker rooms and bags increased their sunscreen application [16]. More of these systematic approaches for sun safety education are desired.

SUMMARY

- Wear sun protective gear such as wide-brimmed hats, sunglasses, and long pants and long-sleeve shirts
- Limit the hour's practices between 10 a.m. and 4 p.m.
- Keep a sunscreen and sun protective gear in locker rooms or sports field for an easy access
- Apply sunscreen with a sun protection factor of 30 or above [17]

- Wear sunscreen even on a cloudy day
- Colored skin also need sun protection
- Reapply sunscreen every two hours to reduce the risk of skin cancer [1]

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