PROMOTING HEALTHY ENVIRONMENTS FOR CHILDREN

Ultraviolet Radiation

Key Points

Being outdoors has significant health benefits. While encouraging children and adolescents to play and exercise outside, it is important to make sure that they do so safely – overexposure to ultraviolet radiation (UVR) can negatively impact health.

- Overexposure to UVR from the sun and artificial sources raises the risk of skin cancer, the most common form of cancer.
- Although cancer is not common in young people, melanoma is one of the most common cancers in teens and young adults.
- Protection from UVR exposure starting in early childhood reduces the risk for skin cancer in adulthood.
- Pediatricians can play key roles in counseling children and families to reduce UVR exposure.

Clinical Guidance

Reducing overexposure to UVR is a key step needed to reduce the risk of skin cancer and other adverse health effects.

Prevention is key!

- Avoid intentional sunbathing and indoor tanning.
- Wear clothing (preferably long-sleeved and long-legged) and hats to protect skin from UVR. A hat with a 3" all-around brim can shade the neck and cheeks.
- Remember that shade or clouds reduce but do not eliminate exposure. Practice sun safety even on cloudy days, when in shady spots, and during the winter.
- Wear water-resistant sunscreen, specifically sun protection factor (SPF) 15 or higher, with broad spectrum (UVB and UVA) coverage, and sunglasses. Before use, check the expiration date and read the label directions. Apply on all skin areas not covered by clothing at least 15 minutes before going outside and reapply every 2 hours, or after swimming or sweating. Mineral-based sunscreen (e.g., zinc oxide) is preferable to chemical-based sunscreen (e.g., oxybenzone).
- Lips also need protection. Apply a lip balm with SPF of 15 or above.
- Pay attention to the UV Index and aim to avoid the sun during peak hours (10 AM – 4 PM).
- Keep infants younger than 6 months out of direct sunlight.

UVR affects the skin, eyes, and immune system.

- Skin impacts include erythema and sunburn, tanning, phototoxicity, photoallergy, skin aging (photoaging), nonmelanoma skin cancer, and melanoma.
- UVR rays can cause photokeratitis and focal burns to the retina, and are a risk factor for cataract development in adults.
- The immune system impacts include skin cancer induction and immune suppression, both of which can lead to skin cancer.

Pediatricians will rarely encounter patients with nonmelanoma skin cancer or melanoma. High risk patients (with pigmentation disorders or a family history of skin cancer) should be followed in collaboration with a dermatologist.

Activities and sports are strongly encouraged — families should aim to do these outside during lower UV index times, in the shade, and when properly clothed.

For More Information

The following resources offer additional information regarding UVR:

- *Pediatric Environmental Health, 4th Edition* – AAP Policy Manual
- Fun in the Sun: Keep Your Family Safe – AAP Patient Education
- Skin Cancer – American Cancer Society
- Skin Cancer – CDC
- National Council on Skin Cancer Prevention
- Skin Cancer Foundation
- Intergovernmental Panel on Climate Change
- Sun Safety – US EPA
- Sun Protection in Schools – WHO

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