



A HEALTHY KANSAS STARTS HERE

Fun in the Sun: Skincare in Summertime

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Disclosure

- The speaker has nothing to disclose

Objective

- Compare the effectiveness of insect repellants and explain sun protection factor (SPF) ratings

Patient Case

What sunscreen should we pack?

What insect repellent should we pack?

Which one should we apply first?



Patient Case

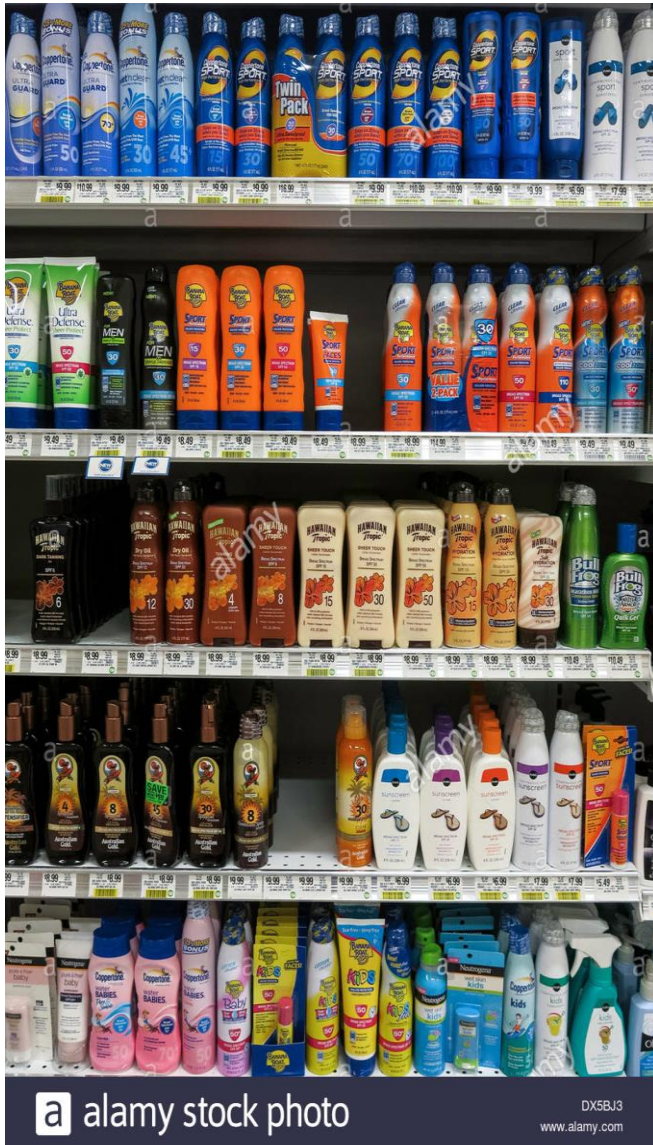
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Sunscreen



- Recommended for everyone
- Estimated that 1 in 5 Americans will develop skin cancer in their lifetime

<https://www.alamy.com/sunscreen-products-aisle-publix-super-market-in-flagler-beach-florida-image67731051.html>

American Academy of Dermatology. Sunscreen FAQs, 2019. Available at <https://www.aad.org/public/everyday-care/sun-protection/sunscreen-patients/sunscreen-faqs>. Accessed March 7, 2021.

What is SPF?

- Used to determine effectiveness of sunscreen product
- UV blocking ability
 - SPF 15 blocks 94% of UVB
 - SPF 30 blocks 97% of UVB
- Maximum allowed SPF by FDA is 50+

Sunscreen Product Selection

SPF \geq 30

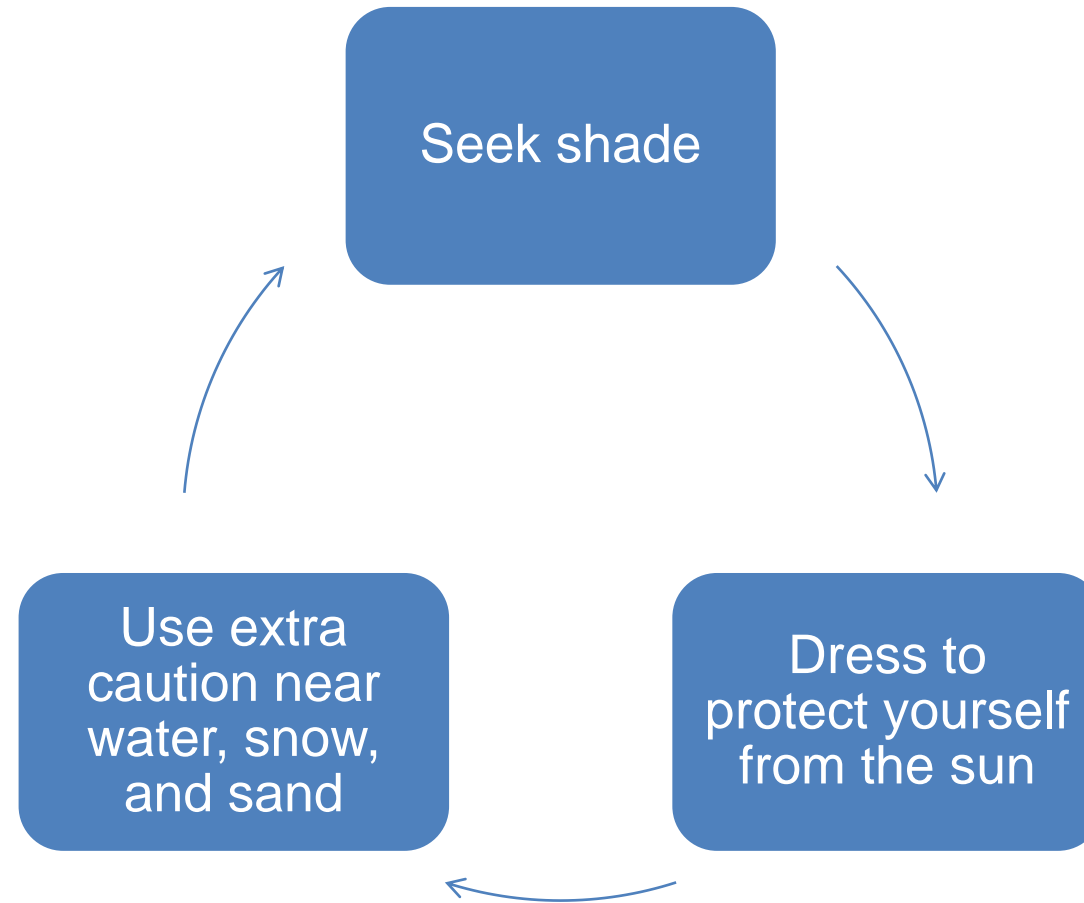
Broad Spectrum (UVA and UVB)

Water Resistant

Active Ingredients



Other Recommendations



Sunscreen Application

- Apply liberally to all exposed areas of the body 15 minutes prior to UV exposure
- Commonly missed areas:
 - Ears, lips, neck, feet, and scalp
- Reapplication
 - At least every 2 hours
 - Swimming or sweating: every 40 to 80 minutes

Sunscreen Formulations

<u>Formulation</u>	<u>Recommendations for Use</u>
Creams	<ul style="list-style-type: none">- Dry skin- Face
Gels	<ul style="list-style-type: none">- Hair-covered areas
Sticks	<ul style="list-style-type: none">- Around the eyes
Sprays	<ul style="list-style-type: none">- Preferred by parents- FDA regulations do not pertain to sprays

Skin Type & Condition

<u>Skin Type or Condition</u>	<u>Recommendations</u>
Acne-prone or oily skin	- Non-comedogenic
Allergy-prone or sensitive skin	- Avoid: <ul style="list-style-type: none">- Fragrance- Para-aminobenzoic acid- Parabens- Oxybenzone
Dry skin	- Cream or lotion
Rosacea or burning skin when applying sunscreen	- Zinc oxide - Titanium dioxide

Patient Case

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Insect Repellents

DEET	Picardin	Permethrin	Lemon Eucalyptus Oil
 <p>A collection of insect repellents containing DEET. Brands shown include OFF! Deep Woods, Cutter Insect Repellent, OFF! FamilyCare, Ben's 100 DEET, and REPEL MAX.</p>	 <p>A collection of insect repellents containing Picardin. Brands shown include OFF! FamilyCare, Sawyer Picardin Insect Repellent, and Zone Insect Repellent.</p>	 <p>A collection of insect repellents containing Permethrin. Brands shown include Sawyer Insect Repellent, REPEL Clothing & Gear, and Hot Shot Flying Insect Killer.</p>	 <p>A collection of insect repellents containing Lemon Eucalyptus Oil. Brands shown include Edens Garden, REPEL, and Cutter Lemon Eucalyptus.</p>

Insect Repellents

- DEET
 - Best all-purpose repellent (insect, flies, fleas, ticks)
- Picaridin
 - Generally as effective as DEET against insects
 - Less effective than DEET against ticks
- Permethrin
 - Insecticide and insect repellent
 - Resistance has been reported in mosquitoes
- Lemon eucalyptus oil
 - Generally less effective than DEET

DEET

Application	Counseling Points
<ul style="list-style-type: none">- Duration varies with concentration<ul style="list-style-type: none">- 24% = ~5 hours- 10% = ~2 hours- Sustained-release products = longer protection times- Use products with $\geq 20\%$	<ul style="list-style-type: none">- “Gold standard”- May damage fabrics or plastics- May have an odor and oily or sticky feel

Picaridin

Application	Counseling Points
<ul style="list-style-type: none">- Duration varies with concentration<ul style="list-style-type: none">- 20%:<ul style="list-style-type: none">- 8 hours against ticks- 7 hours against mosquitoes- 10%:<ul style="list-style-type: none">- 7 hours against ticks- 5 hours against mosquitoes	<ul style="list-style-type: none">- Safe for use on children \geq 2 months- No damage to fabrics or plastics- No odor or oily feel- Less irritating on skin

Permethrin

Application	Counseling Points
<ul style="list-style-type: none">- Apply to clothing and equipment- Treat items 24 - 48 hours in advance- Not for skin application- Lasts through several wash cycles	<ul style="list-style-type: none">- Insecticide and repellent- For optimal protection: also apply an insect repellent (DEET, picaridin) to exposed skin- Odorless when dry- No damage to clothing- Permethrin resistance

Lemon Eucalyptus Oil

Application	Counseling Points
<ul style="list-style-type: none">- If bit before labeled reapplication time, reapply	<ul style="list-style-type: none">- Not for children < 3 years- May cause skin irritation

Patient Case

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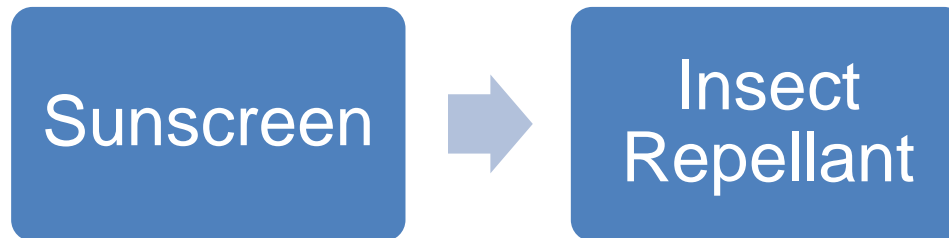
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Application of Multiple Products

- Sunscreen requires more frequent application compared to insect repellents





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