



Sun Exposure Friend or Foe



Roughrider Health Promotion Conference
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North Dakota Department of Health

Evaluate Your School

What are your school's current sun protection practices?





Evaluate Your School

Use this evaluation tool by answering the following questions to determine your school's current sun protection practices.

Add up the total number of points from all the questions below and refer to the key for suggestion on how make you school more SunWise.

Assess the use of school grounds in relation to availability and use of shade:

How many trees or shade structures are on your school grounds?

(2) Many (1) Few (0) None

Are shaded areas available to students during lunch, recess, physical education and sports?

(2) Yes (1) Somewhat (0) No

Approximately what proportion of outdoor space is sheltered by structures and/or trees?

(2) 66-100% (1) 33-66% (0) 10-33%

Can the amount of shade be realistically increased in areas of high student use?

(2) Yes (1) Somewhat (0) No

Are there currently any plans for adding new trees/structures or new construction or renovations that would provide more shade?

(2) Yes (1) Possibly, if can secure funding (0) Not at this time

Assess current school policies for aspects that encourage or discourage sun safe practices:

Are the students allowed to apply sunscreen in school?

(2) Yes (1) Only on Field trips/field days (0) No

Are teacher and nurses allowed to apply/help apply sunscreen to students?

(2) Yes (1) Teachers monitor while students apply themselves

(0) No, they are not allowed



Evaluate Your School

Are students allowed to wear hats on school grounds?

(2) Yes, but not in the building (1) Only allowed on field days/field trips (0) No

At what time of day are outdoor activities scheduled?

(2) All activities are before 10 am and after 4 pm (1) Try to avoid 10 am and 4 pm
(0) Most activities are between 10am and 4 pm

Are sun safety facts and reminders often communicated with parents using newsletters, nurses' notes education pamphlets etc.?

(2) Yes, written forms of communication often include sun safety information
(1) A summer reminder is usually distributed (0) No

Are parents or guardians included in sun safety decisions made by the school?

(2) Yes (1) Somewhat (0) No

Look at current students and staff behaviors through a SunWise Lens:

How many students come to school wearing sunscreen?

(2) Most (1) Some (0) None

What are the sun safety behaviors of school staff and administration? Do they act as role models in the reinforcement of sun safe policies or practices?

(2) Most use sunscreen, wear protective clothing, and seek shade
(1) Some try to practice a few sun safety behaviors (0) None

Do student and staff make use of available shade during outdoor activities?

(2) Yes, shade is mostly utilized (1) Somewhat (0) No



Evaluate Your School

Key for Suggestions to make your school more SunWise

0-9 Points

Your school still has some work to do to make it SunWise. The SunWise program <https://www.neefusa.org/sunwise> will greatly help in the efforts to integrate sun safety into your school's daily practices. The first step is realizing that this is an important issue that affects students' and staffs' health. The next step is to raise awareness of your school community. By using the SunWise toolkit to integrate a sun safety curriculum into the classroom lessons and to establish sun-safe practices, your school will become SunWise. Please review the information at the beginning of the toolkit to help to utilize the toolkit.

10-19 Points

Your school has already taken some important steps toward becoming SunWise. However, by using the SunWise toolkit, you can improve your school's efforts even further. It may be helpful to take a closer look at your school grounds to assess where it may be possible to increase the amount of shade. Consider adding other practices to increase sun safety. Other ideas are to increase the amount of communication already sent to parents regarding the importance of sun safety through outlets such as newsletters, and to develop protocols for sun screen and protective clothing, hats and sunglasses use.

20-28 Points

Your school is doing a really good job at being a SunWise school. By using the SunWise toolkit you can help improve the efforts even further. Besides supplying a creative curriculum, you can take further opportunities in your school to expand current practices. It might be beneficial to have school related organizations work on fund raisers to increase the amount of available shade on the school grounds or try to adjust outdoor activity time when needed.

DID YOU KNOW

- Takes less than 10 minutes for a child to burn
- Sunburns increase the chances of skin cancer as early as late teens
- Children learn healthy habits at a young age- make it a priority
- Prevention measures are needed at home, schools and communities
- Limit outdoors between 10:00am to 4:00pm
- Use sunscreen that is at least an SPF of at least 30
- Encourage play in the shade
- Discourage the use of tanning beds



Benefits of Sunlight and Sun Exposure

- Production of Vitamin D from limited sun exposure
- Increase the production of the hormone Serotonin
 - Boosting mood and calming
- May help heal certain skin conditions (Eczema)
- Reduces the affect of Seasonal Affective Disorder



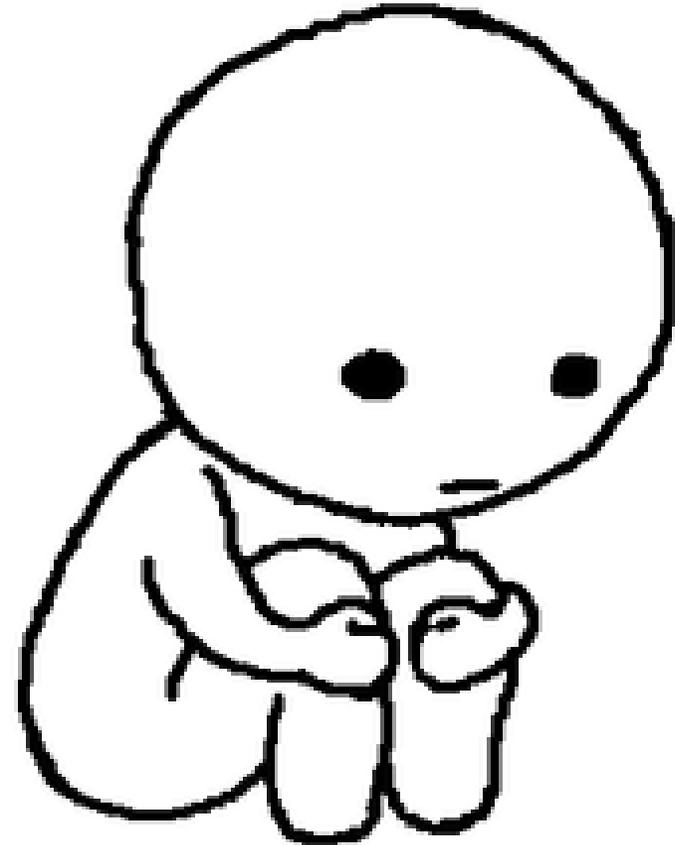
Seasonal
Affective
Disorder
(SAD)



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SAD

- Lethargy
- Melatonin
- Pineal Gland
- Serotonin



SAD cont.

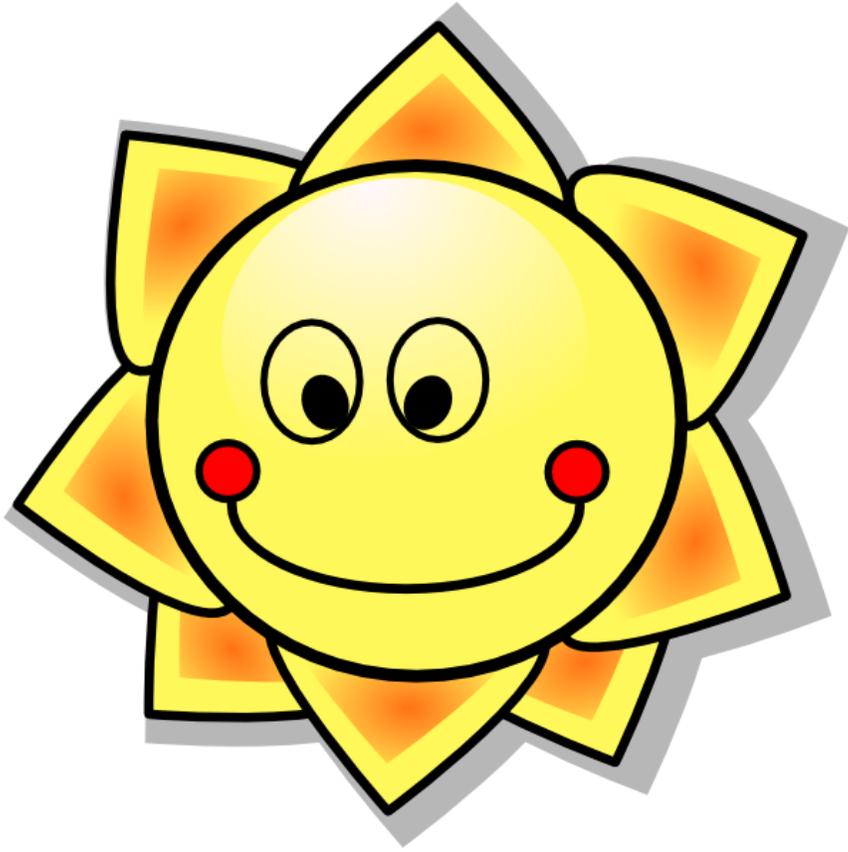
- Too little sunlight
- Changing of seasons
- Winter months (hardest)
- Behavioral Issues
- September-April



Are You at Risk For Skin Cancer

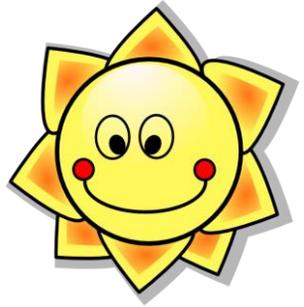
- Lighter natural skin color
- Family/personal history of skin cancer
- Excessive sun exposure (ultraviolet rays, UV) through work and play
- History of sunburns early in life
- Multiple or atypical moles





True or False?

Eighty Percent of Sun Damage
Occurs Before the Age of
Eighteen?



Answer: FALSE

Lifetime UV Exposure in the United States

Ages

- 1-18
- 19-40
- 41-59
- 60-78

Average Accumulated Sun Exposure

- 23 percent
- 47 percent
- 74 percent
- 100 percent

(Based on a 78 year life span)

<https://www.skincancer.org/skin-cancer-information/skin-cancer-facts>

Over Exposure To the Sun and Other UV Rays

Wrinkles



Skin Cancers Including - Melanoma



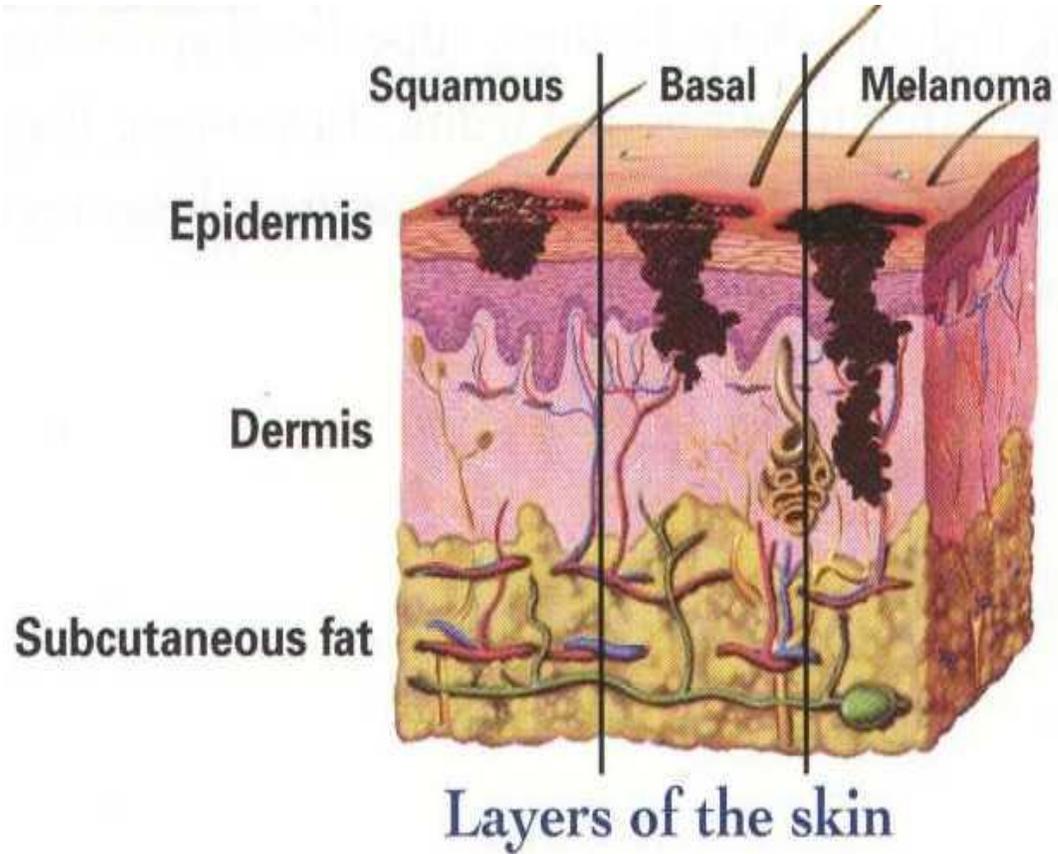
Skin Damage



Other Health Concerns Caused By Over Exposure to the Sun and UV Rays

- Cataracts
- Immune suppression

Skin Cancer



Squamous Cell Cancer



Basal Cell Cancer



Melanoma



Skin Cancer ABCDE's

- **A**symmetry
- **B**order irregularity
- **C**olor variation
- **D**iameter
- **E**volving change



Benign Mole



Action Steps for Sun Protection

- Do not burn (limit time in the sun between 10:00 am and 4:00 pm)
- Avoid sun tanning and tanning beds
- Generously apply sunscreen
- Wear protective clothing
- Seek shade
- Use extra caution near water, snow and sand
- Check the UV Index
- Get Vitamin D safely



You can get a sunburn in any kind of weather.

Sun Burns

- Every time you tan or burn, you damage the DNA in your skin. The more you damage your DNA, the greater the risk of skin cancer
- Getting a base tan cannot prevent a sunburn
- Children have less melanin and are at greater risk of sunburn
- Sun exposure and sunburns during childhood multiply the risk of one day developing skin cancer, including melanoma.



A close-up photograph of a person's back, showing a significant sunburn. The skin is bright red and appears tender. The person's dark, wavy hair is visible at the top of the frame. A large, dark circular graphic is overlaid on the right side of the image, containing text.

Treating A Sun Burn

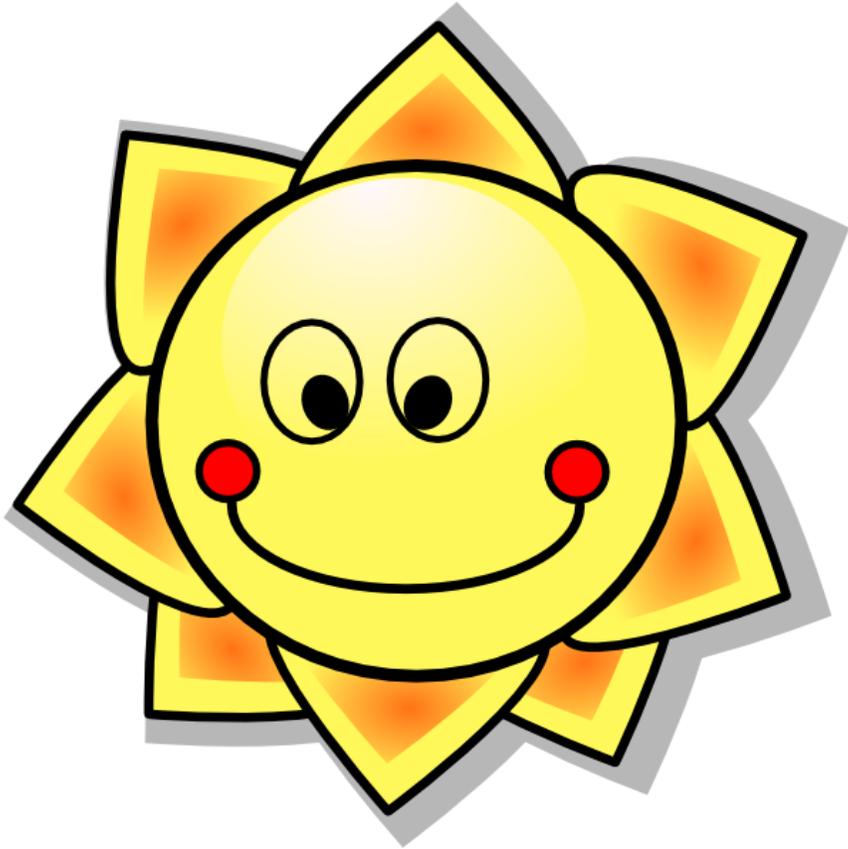
- Cool the burn
- Moisturize while skin is damp
- Decrease the inflammation
- Replenish fluids
- See a doctor if there are severe blisters over a large portion of the body and you have fever and chills

Tanning Beds and Our North Dakota Law

North Dakota Century Code t23c39

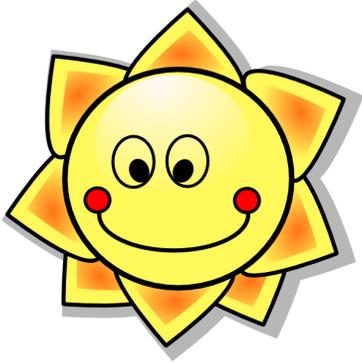


- A customer under eighteen years of age may not be permitted to use the tanning facility until the customer provides the facility with written consent by the parent or legal guardian.
- A customer under the age of fourteen years of age may not be allowed to utilize a tanning device at a tanning facility with a written order from a licensed physician in the and without being accompanied by a parent or legal guardian.



Question

How much sun screen should you apply with each application and how often?



Answer:

- **One ounce to exposed skin every two hours**
- Amount is dependent on body size and how much skin is exposed
- Apply liberally and apply often



Sun Screens

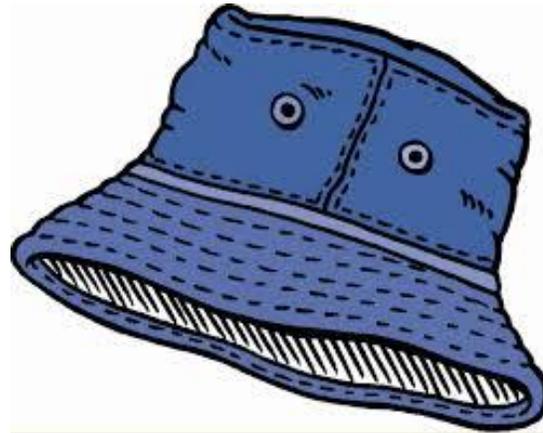
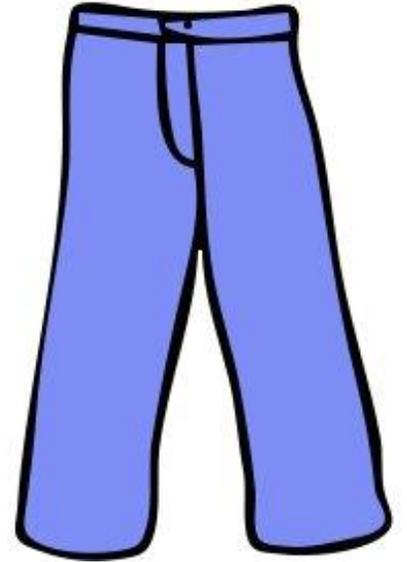
- Wear a broad spectrum sunscreen (at least SPF* 30) and reapply a minimum of every two hours
- Sun screens can also include a water resistant (40 minutes) or very water resistant (80 minutes) Component
- Use sun screen for anyone six months of age and older
- Apply sun screen and insect repellent separately



*SPF= Sun Protection Factor

Wear Protective Clothing

- Long Sleeve Shirts
- Pants
- Wide Brimmed Hat
- Sunglasses





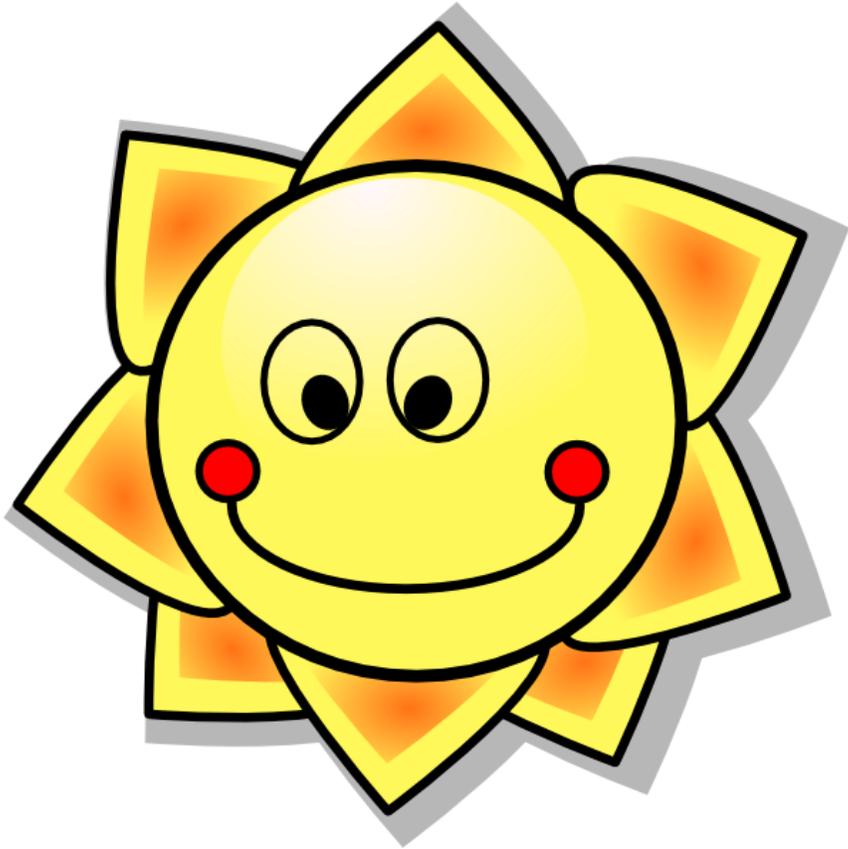
Seek Shade

- The Sun's Strongest UV Rays are Between
- 10:00 AM and 4:00 PM
- Seek Shade Whenever Possible

Use Caution Near Water, Snow and Sand

- Water, Snow and Sand Reflect the Damaging Rays of the Sun.
- Increases Your Chance of a Sunburn





Question

If your shadow is taller than you, your UV exposure is likely to be lower.

True or False?



Answer:

TRUE

EPA shadow guidelines:

An easy way to tell how much UV exposure you are getting is to look for your shadow:

- If your shadow is taller than you are (in the early morning and late afternoon), your UV exposure is likely to be lower.
- If your shadow is shorter than you are (around midday), you are being exposed to higher levels of UV radiation. Seek shade and protect your skin and eyes.

EPA's SunWise UV Index 4+

[United States Environmental Protection Agency \(USEPA\)](http://www.epa.gov/sunwise)



Verizon 8:46 AM 99%

EPA UV Index
Find the daily UV Index Forecast

58645 or

Medora, ND
Wednesday, May 16, 2018

Low (<2)
Moderate (3 to 5)
High (6 to 7)
Very High (8 to 10)
Extreme (11+)

8

Protection against sun damage is needed. If you need to be outside during midday hours between 10 a.m. and 4 p.m., take steps to reduce sun exposure. Protective clothing, a wide-brimmed hat, sunglasses, and SPF 30+ sunscreen are a must, and be sure you seek shade. Beachgoers should know that white sand and other bright surfaces reflect UV and can double UV exposure.

Brought to you by EPA and the National Weather Service

Daily Hourly Daily Map Info Posters

Verizon 8:42 AM 99%

EPA UV Index
Find the hourly UV Index Forecast

ZipCode or

Bismarck, ND
Wednesday, May 16, 2018

7AM	low	1
8AM	low	2
9AM	moderate	3
10AM	moderate	5
11AM	high	7
12PM	very high	8
1PM	very high	8
2PM	high	7
3PM	high	6
4PM	moderate	4
5PM	low	2
6PM	low	1

Brought to you by EPA and the National Weather Service

Daily Hourly Daily Map Info Posters



Vitamin D

What Does Vitamin D do?

- Promotion of bone growth
- Neuromuscular and immune function
- Reduction of inflammation

Talk to your doctor about the right amount of Vitamin D for you.

Sources of Vitamin D

- Limited sun exposure
- Food we eat
 - Some foods higher in Vitamin D
 - Fortified foods
 - milk, bread, yogurt, orange juice (range approx. 40 to 100 *IU/serving)
 - Salmon 3 ounces (447 IU)
 - Tuna fish 3 ounces (154 IU)
- Supplements
 - There are varying doses of Vitamin D supplements
 - Recommended Daily Allowance of Vitamin D for most individuals 14-70 years of age is 600 IU/Day

*IU= International Unit

Interventions to Reduce Sun Exposure

Evidence Based Interventions from the Guide to Community Preventive Services

- Increase the availability of sun-protective items
 - Sunscreen and clothing for cover
- Increase shade
- Implement sun protection practices or policies
- Teach student-focused educational and behavioral interventions
 - Teach children about sun safety and the effects of ultra-violet (UV) radiation, reinforced by modeling, demonstration, or role-playing.
- Engage in efforts to change the knowledge, attitudes, and behaviors of caregivers at school or at home

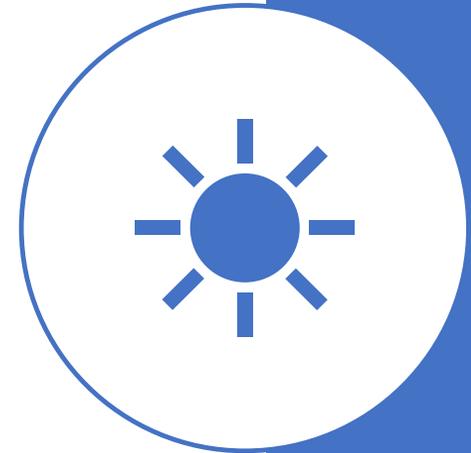
<https://www.thecommunityguide.org/findings/skin-cancer-primary-and-middle-school-based-interventions>

Interventions to Reduce Sun Exposure

Center for Disease Control and Prevention

Guidelines for School Programs To Prevent Skin Cancer

- Establish policies that reduce exposure to UV radiation
- Provide and maintain physical and social environments that support sun safety
- Provide health education to teach students the knowledge, attitudes, and behavioral skills they need to prevent skin cancer
- Involve family members in skin cancer prevention efforts
- Include skin cancer prevention knowledge and skills in pre-service and in-service education for school administrators, teachers
- Complement and support skin cancer prevention education and sun-safety environments and policies with school health services
- Periodically evaluate the implementation of planned sun safe interventions
- <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5104a1.htm>



Interventions to Reduce Sun Exposure

(National Cancer Institute)

- **Sunny Days Healthy Ways - Elementary School (Grades K-5)**
 - <https://rtips.cancer.gov/rtips/programDetails.do?programId=290468>
- **Sunny Days Healthy Ways - Middle School (Grades 6-8)**
 - <https://rtips.cancer.gov/rtips/programDetails.do?programId=289413>
- **SunSafe in the Middle School Years**
 - <https://rtips.cancer.gov/rtips/programDetails.do?programId=298179>

Interventions to Reduce Sun Exposure

(Evidence Based Interventions Promoted in North Dakota)

- Engage student committees/council to lead an effort of promoting non-use of tanning beds prior to Prom by signing “No Tanning” Pledges
- Promote sun safe interventions for student athletes and other student outdoor activities by using the North Dakota Cancer Coalition’s Coach’s Manual
- Plan for shade structures on school playgrounds
- Provide sun safety education for elementary grade levels

Tanning is out. Your skin is In

the facts of tanning:

.The World Health Organization has determined that UV rays from tanning beds cause cancer.

.People who use tanning beds once a month before the age of 35 increase their melanoma (the deadliest form of skin cancer) risk by 75%.

.Melanoma kills one person every 50 minutes. It is the second most common cancer for young adults ages 15 to 29 years. Rates for melanoma are increasing faster than nearly all other cancers.

.It is not safe to tan in the sun or in a tanning bed. Using a tanning bed for 20 minutes is the same as spending 1 to 3 hours a day at the beach with no sun protection at all. Tanning beds put out 3 to 6 times the amount of radiation given off by the sun.

.For most people, 5 to 10 minutes of unprotected sun 2 to 3 times a week is enough to help your skin make vitamin D, which is essential for your health. Getting more sun won't increase your vitamin D level, but it will increase your risk of skin cancer. Vitamin D also comes from orange juice, milk and fish, as well as from supplements.

The No-tanning Pledge

...I pledge not to go tanning prior to the prom or other events/dances. By this I mean that I will not intentionally tan by lying out in the sun or using tanning beds.

...I realize that by getting a tan I am sharply increasing my chances of developing melanoma, which can be **deadly** if not caught in time.

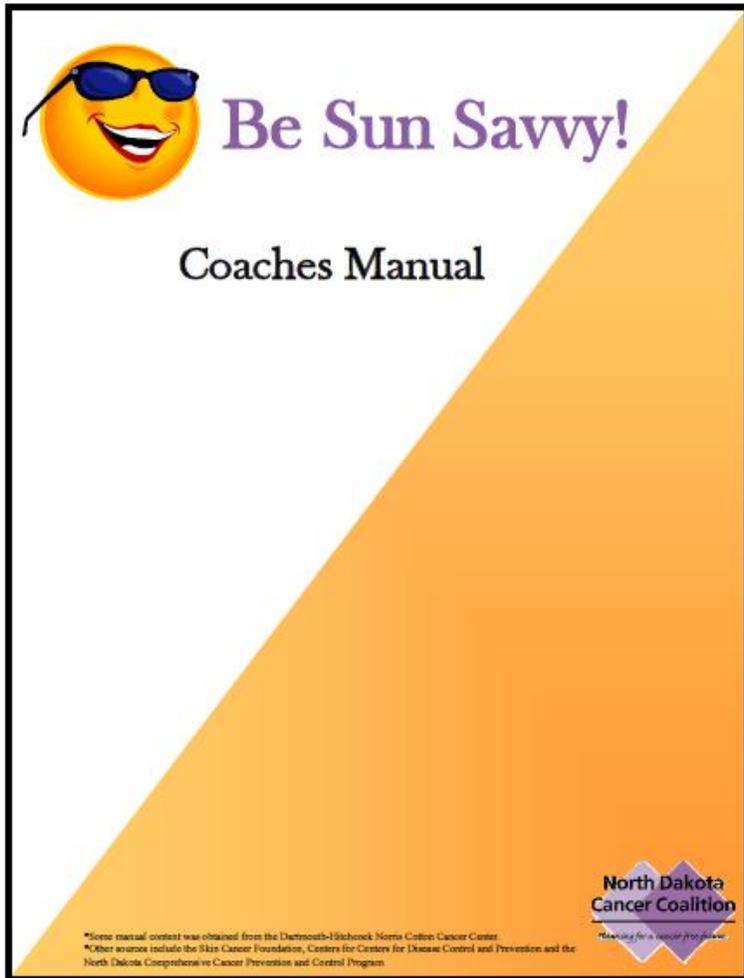
...I have read the **Facts of Tanning** and understand the dangers of tanning beds and lying out in the sun.

signature.....**date**.....

.....
name

.....
grade





Sun Safety Guidelines for Student Athletes

- Athlete sun safe behaviors
- Sun safe practices
- Sun screen tips
- Sun protection facts

https://www.ndcancercoalition.org/image/cache/Be_Sun_Savvy_Coaches_Manual.pdf

Shade Structure Program

The American Academy of Dermatology (AAD) Shade Structure Grant Program awards grants of up to \$8,000 to public schools and non-profit organizations for installing permanent shade structures for outdoor locations that are not protected from the sun, such as playgrounds, pools or recreation spaces. In addition to the grant, the AAD also provides a permanent sign for display near the shade structure. Members can support the program by sponsoring an application or making a donation to the program.



Since it's inception in 2000, the Shade Structure Grant Program has funded 324 shade structures.

Eligible applicants

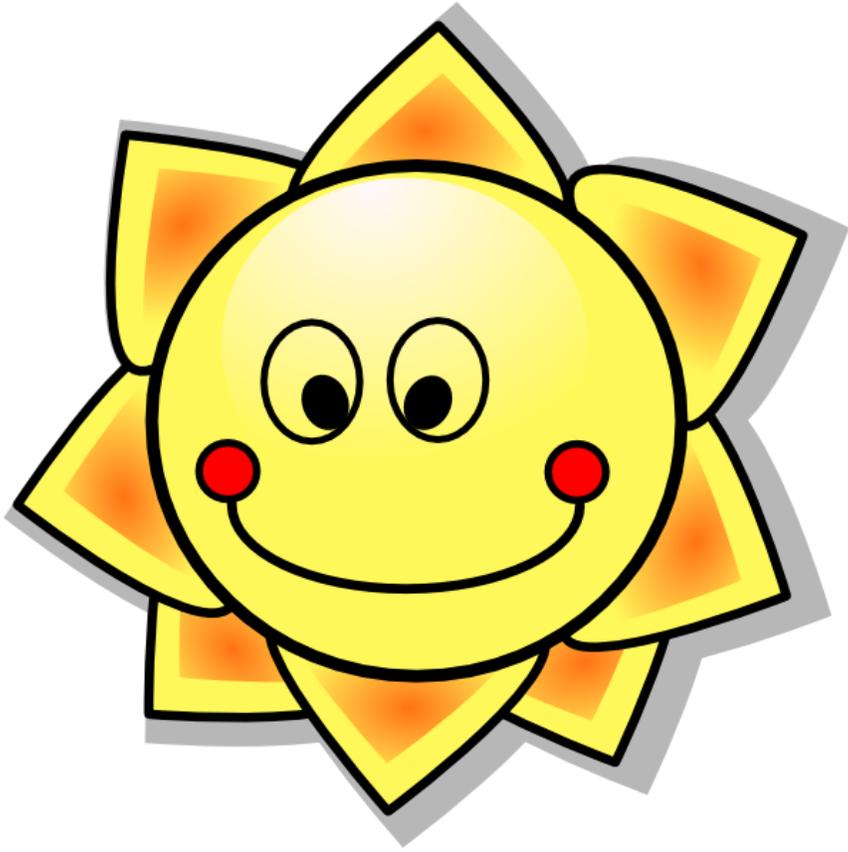
The AAD Shade Structure Program is open to non-profit organizations that provide services, programs, and curricula to children and teenagers who are 18 and younger.

To be considered, applicants must:

- Be recommended by an Academy member dermatologist
- Demonstrate a commitment to sun safety within their organizations (Please see the [online application](#) for specific criteria to meet this requirement)
- Be considering a shade structure that meets the stringent requirements of the AAD (Please see the [shade structure program FAQs](#) or the [guidelines book](#) for specific criteria on shade structure selection)

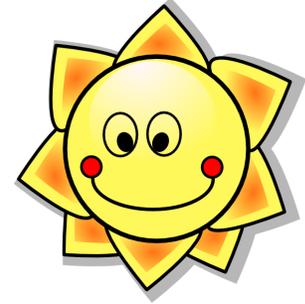


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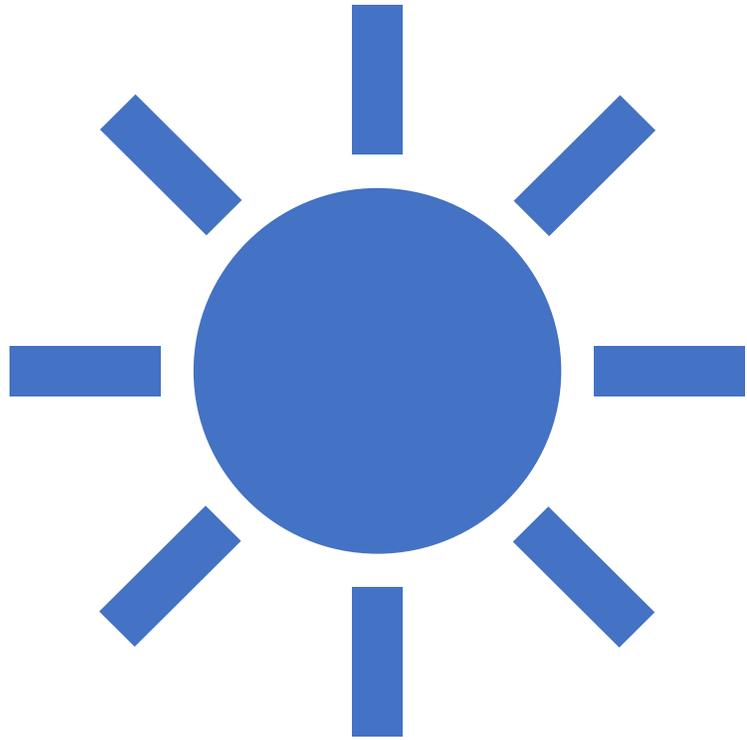
Question

Why do many adults have more freckles on the left side of their face and brown spots on their left arm?



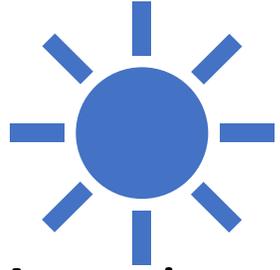
Answer:

- **It's from UV exposure on that side of the car, through the window, when driving.**
 - The sun's UVA rays can penetrate through glass.
 - To protect yourself, apply sunscreen to any exposed areas (like your hands, forearms, and face) before getting into your car, especially in the spring and summer months.



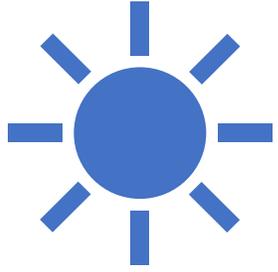
Sun Safety Resources

- CDC's Shade Planning for America's Schools
 - https://www.cdc.gov/cancer/skin/pdf/shade_planning.pdf
- SunWise Toolkit (Toolkit example provided in the sun safety backpacks)
 - <https://www.neefusa.org/sunwise>
- Skin Cancer Foundation (Teacher Resources)
 - <https://www.skincancer.org/prevention/education-program>
- American Academy of Dermatology
 - <https://www.aad.org/public>
- Environmental Protection Agency (Sun Safety and UV Index)
 - <https://www.epa.gov/sunsafety>
 - <https://www.epa.gov/sites/production/files/documents/uvguide.pdf>



Sun Safety Resources

- American Cancer Society
 - <https://www.cancer.org/cancer/skin-cancer/galleries.html>
- US Food and Drug Administration – “Sunscreen: How to Help Protect Your Skin from the Sun”
 - <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm239463.htm>
- Sun Safety for Kids (sun protection methods, school policy information and resources)
 - <http://sunsafetyforkids.org/>
- CDC Sun Safety Resource Toolkit
 - <https://www.cdc.gov/cancer/skin/toolkit/index.htm>
- Steve Spangler Science (UV bead experiments for sun safety education)
 - <https://www.stevespanglerscience.com/lab/experiments/uv-reactive-beads/>



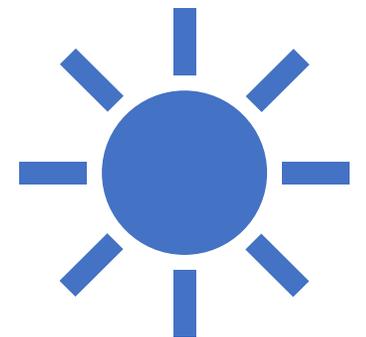
Sun Safety Resources-Cont.

- Children's toolkit American Academy of Dermatology SPOT Skin Cancer
 - <https://www.aad.org/search/?k=kids%20and%20sun%20screen>
- Safe in the Sun – 52 Weeks of Sun Safe Activities (South Carolina Dept. of Health)
 - <http://www.scdhec.gov/Library/CR-009529.pdf>
- Stanford SOLAR Center – All About the Sun, As the Sun Burns (Grades 2-4)
 - <http://solar-center.stanford.edu/activities/AstheSunBurns2-4.pdf>
- Stanford SOLAR Center – All About the Sun, As the Sun Burns (Grades 9-12)
 - <http://solar-center.stanford.edu/webcast/wcpdf/sunonearth9-12.pdf>
- North Dakota Cancer Coalition (to upload the Be Sun Savvy Coach's Manual, request use of the dermascan machine or other resources)
 - <https://www.ndcancercoalition.org>

School Team Sun Safety Backpacks

Contents of the backpack to support student sun safety education include:

- NEEF SunWise toolkit (paper version for viewing toolkit contents)
 - Please register on the NEEF website to use free resources, including the electronic version of the toolkit
 - <https://www.neefusa.org/sunwise>
- UV beads
- UV frisbees
- UV bracelets
- UV Index cards



Questions and Answers





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Thank You

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