

Sun-Safe Worksite Guide

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Workday Exposure to Ultraviolet Radiation

Employers protect workers from exposure to hazardous conditions and substances by providing safety procedures, training and equipment. Workers' exposure to the sun should be no exception. Ultraviolet (UV) radiation is a bonafide occupational health hazard for outdoor workers, and a general health hazard for indoor workers. Unprotected sun exposure can damage the skin, lips, eyes, and immune system. It contributes to health care costs and, in some states, workmen's compensation claims.

The Skin Cancer Epidemic

With little notice, skin cancer has reached epidemic proportions in the United States. With more than one million new cases each year, skin cancer is the most common and most preventable cancer in the United States. The incidence of malignant melanoma (a life-threatening type of skin cancer) is increasing at a rate of 4 to 6 percent each year!

Most skin cancer is caused by over-exposure to the sun's ultraviolet radiation. This includes exposure over time (tanning) as well as acute severe exposure (burning). Sun exposure also causes precancerous actinic keratosis (sun spots) and premature aging of the skin (wrinkles). Ultraviolet radiation, particularly UVB, causes inflammation of the cornea, photoconjunctivitis, cataracts, and other opacities of the eyes.

Outdoor workers receive up to 8 times more UV exposure and have a 60 percent greater risk of developing skin cancer than indoor workers. However, indoor workers are not without risk. They appear to be more prone to melanoma because of intermittent sunburns.

Individuals At Higher Risk for UV Exposure and Injury

- **Fair-Skinned People.** Individuals with light skin, hair and eyes are at highest risk for developing skin cancer. They have less natural protection (melanin) in their skin. However, even individuals with medium and dark skin can, and do, develop skin cancer.
- **People with Many Moles.** Most moles are harmless. However, the first sign of melanoma is often a change in the size, shape, or color of a mole. Some people have many (up to 100 or more) unusual moles called dysplastic nevi. These can develop into melanoma more quickly than normal moles.
- **People Who Live in High UV Areas.** People who live, work or play closer to the equator, at higher altitudes, and in locations with many dry, sunny days have a higher risk of sun exposure, sunburn and skin cancer. Mountains have some of the most intense UV radiation on Earth. At an altitude of 10,000 feet, UV is 50 percent more intense than at sea level. Also, the thinning of the Earth's protective ozone layer increases exposure to UV radiation.

Sun safety is the development and practice of positive health habits to reduce exposure to ultraviolet radiation and protect the skin and eyes from sunburn and permanent damage.

- **Outdoor Workers.** Outdoor workers have a greater risk of developing skin cancer because of their cumulative sun exposure. Many outdoor workers spend 30 or more work hours per week exposed to UV radiation, yet in a recent survey conducted by the San Diego State University, only 50% of outdoor workers used adequate sun protection.
- **Children.** We accumulate more than 80% of our lifetime sun exposure before the age of 18. Because of this exposure and the likely link between severe sunburns in childhood and the development of melanoma in adulthood, infants and children should be protected from the sun.

Skin Cancer Prevention

It is not possible for indoor or outdoor workers to completely avoid exposure to ultraviolet radiation. However, simple sun precautions – especially if required by the employer for outdoor workers – can greatly reduce ultraviolet exposure and the risk of serious injury. The use of protective clothing, hats, sunglasses, and sunscreen are reasonable sun protection procedures for outdoor workers. Systems can be established to reduce the amount of time workers spend in the sun, especially on days of highest sun intensity. And portable shade shelters often can be provided.

The Role of the Worksite

Worksites can protect their employees from skin cancer and eye damage by:

- Adopting a worksite sun safety policy
- Promoting sun-safe behaviors among indoor and outdoor workers
- Providing sun-safe environments, schedules, work clothes, and equipment
- Teaching sun safety in wellness and occupational health and safety programs
- Covering the costs of annual skin examinations and risk assessments

This guide can help your organization:

- Assess your current sun safety policies and procedures
- Develop a customized sun safety policy for immediate adoption
- Implement sun safety policies and procedures
- Communicate skin cancer prevention messages to employees
- Evaluate the effectiveness of your sun safety policy annually

Studies in Australia have shown that workplace sun safety programs can improve sun protection by employees. Increased protection equals decreased skin cancer, sick days, health care costs, and compensation claims. Sun exposure should be addressed the same as any other occupational health and safety problem. This Sun-Safe Worksite Guide is designed to help managers, health and safety officers, and wellness coordinators give sun protection the serious attention it deserves in the workplace.



Providing sun-safe worksite environments

Changing your worksite's physical environment, schedules and policies can help employees reduce their sun exposure and potential risk for skin cancer.

Providing shade

Trees can be an excellent source of shade. Dense trees screen out about 80 percent of the sun's rays.

Deciduous trees lose their leaves in the winter months. Non-deciduous trees provide year-round shade and protection from the sun's rays. With proper placement, trees cool buildings in the summer.

Shade structures, such as porches, ramadas, shade cloth and umbrellas, can provide year-round protection.

If fabric or shade cloth is used on shade structures, make sure that it screens out at least 95 percent of the ultraviolet radiation. Use materials that are guaranteed not to rot in the sun, tear, or crack for several years.

Umbrellas provide up to 50 percent protection from ultraviolet radiation. Although shade structures provide some protection from the direct sun rays, ultraviolet radiation can reflect off of sand, snow, tile, water, buildings, cement, and other surfaces. Dry, fresh snow can reflect 85-90 percent of ultraviolet radiation, nearly doubling exposure. Even in the shade, it is important to wear cover-up clothes, hats, and sunscreen.

How worksites can become sun-safe environments

- Assess facilities and grounds to determine where shade is needed and what is feasible.
- Plant trees in open spaces where shade is needed and where it will be used. Outdoor lunch areas are obvious locations for shade trees or shade structures.
- Establish an Arbor Day tradition, including a tree-planting ceremony and educational activities promoting the benefits of trees.

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- Assess work patterns to determine where shade is needed and what is feasible. Erect temporary and permanent shade structures wherever possible.
 - Mount umbrellas on construction equipment and on picnic tables in outdoor lunch areas.
 - Encourage employees to use shaded areas.
 - Provide umbrellas, tents and other portable shade devices for outdoor workers to erect at job sites.
 - Build permanent shade structures.
 - Encourage architects and planners to include ramadas, trees, or shaded areas in new construction or remodeling plans.

Promoting sun-safe lifestyle habits

Adopting sun-safe lifestyle habits—avoiding sun exposure during peak hours; using shade; wearing cover-up clothing, sunglasses, and hats; and using sunscreen—can help prevent skin cancer. The best protection is provided when all of these sun-safe behaviors are practiced together. Worksites can promote the adoption of sun-safe lifestyle habits by their employees in a number of ways.

Hats

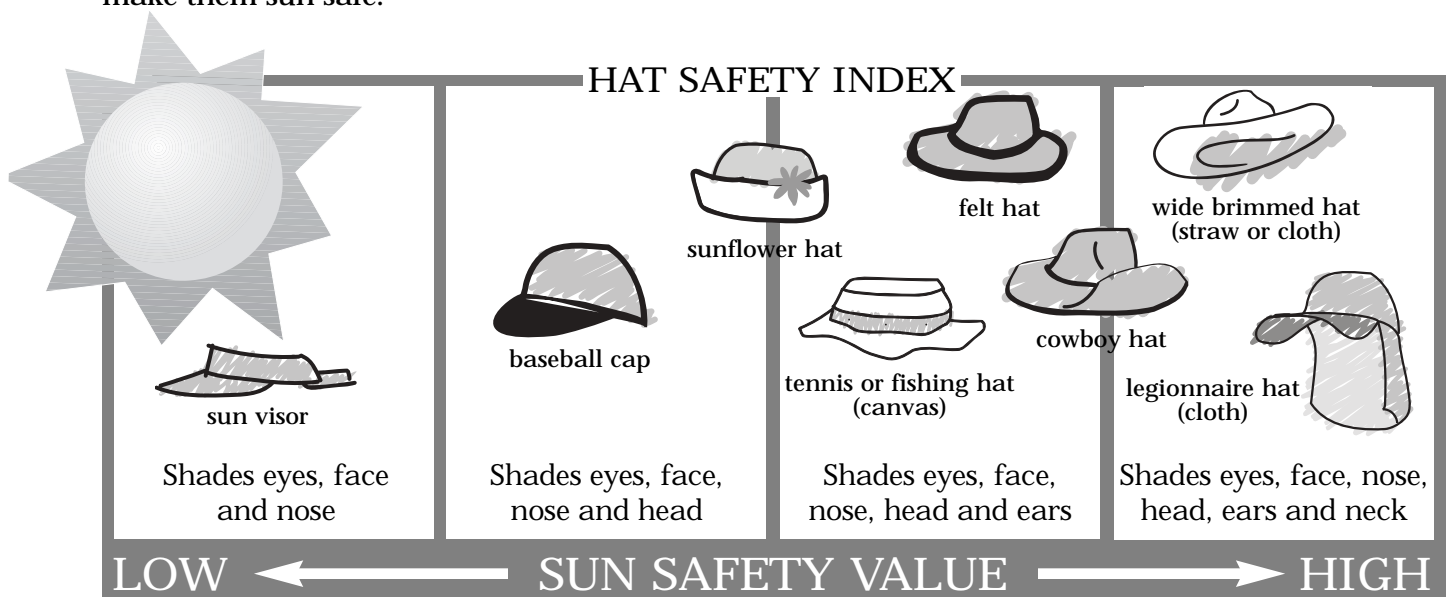
Hats offer the best method of minimizing ultraviolet radiation to the face, head, ears, and neck. Different styles of hats provide varying levels of sun protection, but any hat is better than no hat. (See Hat Safety Index below.)

A hat with a wide brim that goes all the way around offers the best protection for the cheeks, nose, ears, head, and neck. The hat's brim should be at least 3 to 4 inches wide. A wide-brimmed hat provides approximately 50 percent protection from direct exposure.

A flappy-jack or legionnaire cap provides good protection for the ears and neck but leaves areas of the cheeks exposed to the sun. Baseball hats offer some protection for the face but do not protect the ears, cheeks, and neck. Visors do not protect the ears, cheeks, neck or head. Covers with a back flap can be added to hard hats to make them sun safe.

How worksites can promote hats

- Encourage or require outdoor workers to wear wide-brimmed, sun-safe hats.
- Provide sun-safe hard hat covers or flaps for outdoor workers required to wear hard hats.
- Sell sun-safe hats with the organizations colors and logo.
- Provide an annual allowance to outdoor workers for the purchase of a sun-safe hat or hard-hat cover.
- Offer awards each month for the group with the most employees wearing hats every day.



Sun-Protective clothing

Clothing should be one of the first lines of defense against sun exposure. Style and fabric affect the amount of protection that clothes provide. Long-sleeved shirts with collars and long pants provide the most protection because they leave less skin exposed to the sun. Lighter colors may feel cooler, but darker colors absorb ultraviolet light better and provide more sun protection.

Fabric is full of tiny holes that can allow ultraviolet light through. The fewer the number and the smaller the size of the holes in the fabric, the more it blocks ultraviolet radiation. Fabrics with a tight knit or weave block more ultraviolet light.

Many fabrics block ultraviolet rays, but only some clothing is labeled with a UPF number to show its sun protective value. UPF stands for Ultraviolet Protection Factor. UPF is similar to SPF, except that UPF means the UV-testing was done with equipment rather than on people's skin. If labeled as sun protective, the clothing usually has a UPF between 15 and 50+. To test fabric yourself, hold it about 8 inches from your eyes toward a light source and look through the fabric. If visible can pass through the holes, so can invisible ultraviolet light.

Sunglasses

Overexposure to the sun can cause short- and long-term damage to the eyes. Protection of the eyes is especially important for young adults since the lens of the eye is not able to completely protect the retina from the harmful effects of ultraviolet radiation until about 30 years of age.

The percentage of the ultraviolet rays filtered out by sunglasses often is printed on the label. Inexpensive sunglasses that provide 99-100 percent protection against UVA and UVB can be found easily.

Employees who wear prescription glasses can have an ultraviolet coating added to their lenses or contacts.

How worksites can promote sun-protective clothing

- Encourage or require outdoor workers to wear long-sleeved shirts with collars and long pants.
- Discourage sleeveless shirts, tank tops, and shorts.
- Adopt a worksite uniform policy that requires shirts with long sleeves and collars, and long pants.
- Encourage supervisors to set a good example by wearing sun-protective clothes.
- Sell protective clothing with the organization's colors and logo.
- Offer awards each month for the group with the most employees wearing sun-protective clothing every day.
- Purchase uniforms or work clothes that have been tested and labeled as sun-protective.

How worksites can promote sunglasses

- Encourage employees to wear sunglasses or goggles that filter out 99-100 percent of UVA and UVB rays.
- Sell UV-protective sunglasses or goggles with the organization's colors and logo.
- Offer awards each month for the group with the most employees wearing sunglasses every day.
- Provide an annual allowance to outdoor workers for the purchase of UV-protective sunglasses or goggles.

Sunscreen

Sunscreen is a valuable sun protection measure when used appropriately, but no sunscreen lasts all day or blocks all of the sun's harmful rays.

Ideally, sunscreen should be used in addition to wearing protective clothing and to protect against normal sun exposure, not to prolong it.

Sunscreens work in two ways. The chemicals in most sunscreens **absorb** ultraviolet radiation before it can damage the skin. Some sunscreens block ultraviolet rays by **scattering** or **reflecting** them away from the skin.

Sunscreens provide protection for a limited amount of time, usually the number of minutes it takes skin to redden multiplied by the SPF of the sunscreen.

A sunscreen with an SPF of 15 will allow you to stay in the sun 15 times longer than the amount of time it normally takes for your unprotected skin to redden or burn. If your unprotected skin burns in ten minutes, a sunscreen with an SPF of 15 (that is reapplied correctly) will provide protection from burning for a total of 150 minutes (SPF 15 x 10 minutes).

Use broad spectrum sunscreens. All sunscreens block UVB—the burning rays, but broad spectrum sunscreens block UVB and UVA—the aging rays that penetrate more deeply into the skin. Some ingredients, such as avobenzone (Parsol 1789), zinc oxide, and titanium dioxide, block more of the UVA spectrum than other chemicals.

Apply sunscreen at least 30 minutes before going out in the sun to allow time for the chemicals to be absorbed into the skin. Use waterproof sunscreens that will not be washed off through perspiration, and to be sure you're protected, reapply sunscreen every two hours, and after swimming or sweating.

Remember to use sunscreen every day—even on cool or cloudy days. Seventy to eighty percent of the sun's damaging rays can penetrate through cloud cover.

Policy Suggestions

- Encourage outdoor workers to use sunscreen and lip balm with an SPF of 15 or greater every day, all year long, on all sun-exposed areas of the skin.
- Provide sunscreen and lip balm for outdoor workers.
- Buy sunscreen in bulk for outdoor workers' use.
- Encourage supervisors and safety officers to set a good example by using sunscreen and lip balm.

Implementing sun-safe worksite policies

Sun safety policies

The sun's rays are the strongest between 10 a.m. and 3 p.m. Outdoor workers are likely to be outside during this time. As much as 60 percent of ultraviolet radiation exposure could be reduced by avoiding sun exposure during these hours of peak sun intensity.

Teaching employees about preventive practices may lead to lifelong sun-safe habits, a reduction of UV exposure, and the prevention of serious skin and eye damage.

Formalizing your sun safety policy in writing will help foster your organization's commitment to the established goals.

The Environmental Protection Agency (EPA) and the National Weather Service (NWS) have developed the UV index to indicate the likely level of exposure to UV rays for a particular city on a given day. Each city is given a daily UV Index Forecast on a scale of 0 to 10+. Take more sun safety precautions on days with higher UV index values (see chart on the following page).

How worksites can adopt sun safety policies

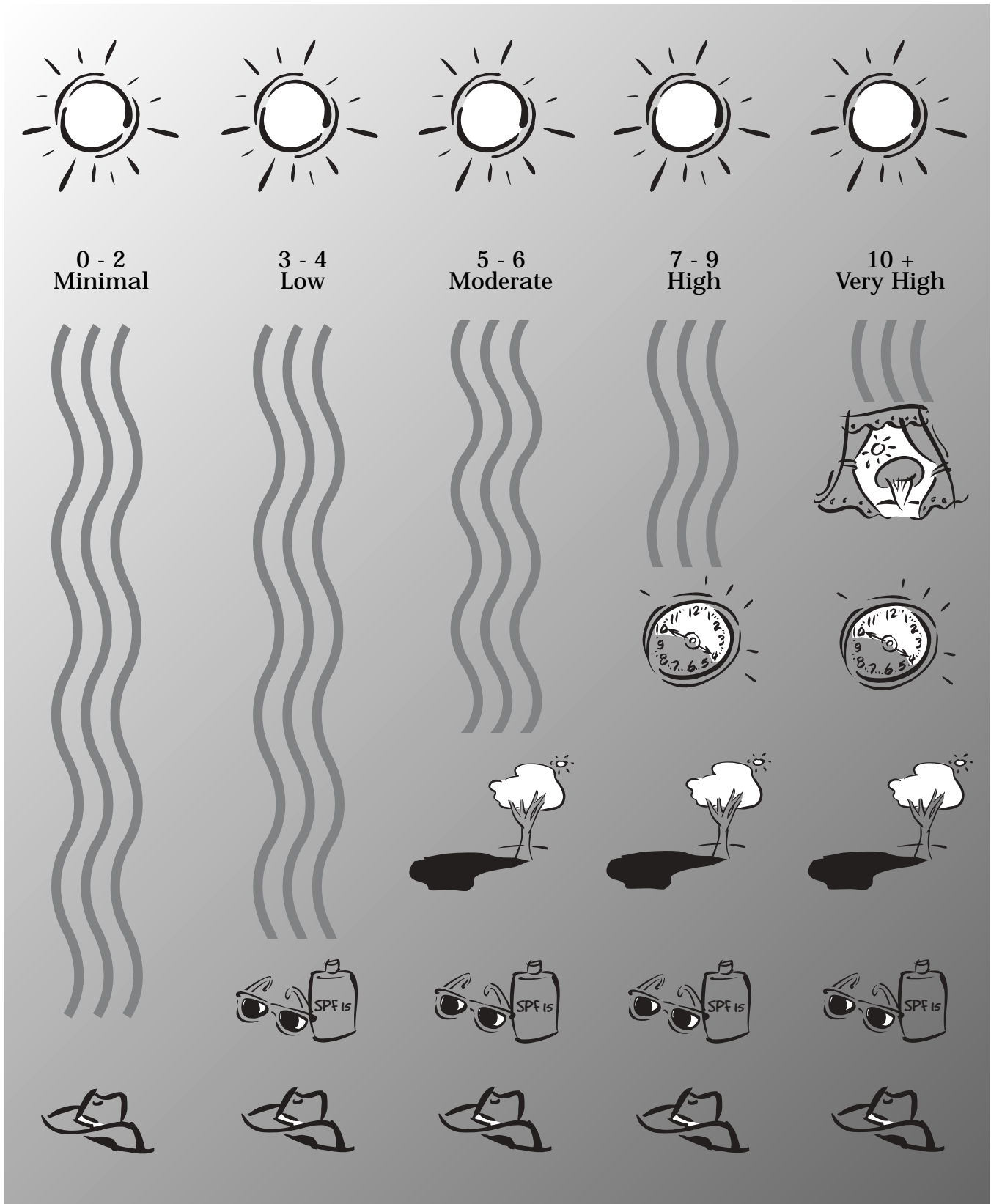
- Schedule outdoor work before or after peak hours whenever possible, especially on days of highest sun intensity (see below).

- Teach employees about sun safety and reinforce policies through safety instruction.
- Each year, offer health promotion programs and skin cancer screenings to all employees.
- Discourage employee use of artificial tanning devices.
- Encourage and train employees to become sun safety peer educators and role models for their coworkers.

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- Develop a written sun safety policy for the organization to use as an implementation guide and tool for monitoring progress. (See page 11 for Sun-Safe Worksite Policy Planning Worksheet.)
 - Require all employees to review the policy at hiring orientation.

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- Encourage employees to access the UV Index daily via newspapers (weather page) or the Internet (www.cpc.ncep.noaa.gov/products/stratosphere/uv_index) so that employees can determine what precautions they should take to be sun safe each day.
 - Post the UV Index daily on bulletin boards and electronic mail services.
 - Encourage or require employees to use special precautions on days of high UV Index values.

Sun Safety Precautions and the UV Index



Source: Environmental Protection Agency

Setting sun-safety goals

Use this chart to guide your goal-setting for worksite sun safety policy development. It provides examples for starting points and future goals to work toward.

	Starting Points	Future Goals
Clothing	<ul style="list-style-type: none"> Encourage employees to wear sun-protective clothing (long-sleeved shirts and long pants). 	<ul style="list-style-type: none"> Provide outdoor workers with a uniform that provides maximum sun protection. Require them to wear it.
Hats	<ul style="list-style-type: none"> Encourage employees and staff to wear wide-brimmed hats, legionnaire hats, or hard hat covers when outdoors. 	<ul style="list-style-type: none"> Provide outdoor workers with a hat that provides maximum sun protection, without jeopardizing safety. Require that they wear it.
Sunglasses	<ul style="list-style-type: none"> Encourage employees to wear 99-100% UV blocking sunglasses or goggles when outdoors. 	<ul style="list-style-type: none"> Require outdoor workers to wear 100% UV-blocking sunglasses or goggles.
Sunscreen	<ul style="list-style-type: none"> Encourage employees to use broad spectrum sunscreen and lip balm with SPF 15 or more every day. 	<ul style="list-style-type: none"> Provide outdoor workers with broad spectrum SPF 15+ sunscreen and lip balm. Require their use every day.
Shade	<ul style="list-style-type: none"> Provide shaded areas for lunch breaks. 	<ul style="list-style-type: none"> Provide outdoor workers with portable shade structures that can be erected at job sites whenever possible.
Scheduling	<ul style="list-style-type: none"> Encourage outdoor workers to plan outdoor work around peak sun hours whenever possible. Encourage outdoor workers to follow the daily UV Index. 	<ul style="list-style-type: none"> Prohibit outdoor work on days with extremely high UV Index forecasts (10+).

Sun safety policy development

How can you make your worksite more sun safe? The first step is to formulate a written Worksite Sun Safety Policy that will serve as an implementation guide. The most effective policies are based on input from employees and supervisors.

A sun-safe worksite action plan should include:

- Defined goals;
- Implementation plan detailing the strategies for achieving the goals (the sun safety policies and procedures); and
- Monitoring and evaluation plans to ensure the success and future development of the worksite's sun safety policies.

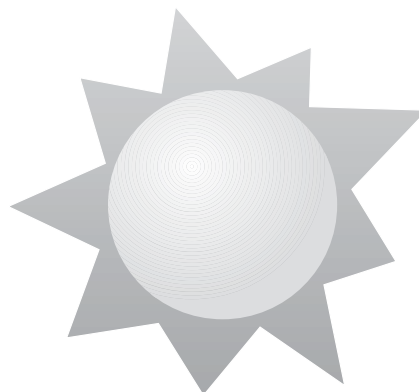
To develop your worksite's sun safety policy, follow these simple steps:

- 1) Complete the sun safety worksite assessment questionnaire in this booklet (see pages 12-15) to provide direction regarding potential areas for improvement.
- 2) Solicit input from employees and management.
- 3) Determine what sun safety actions are feasible, given your organization's resources.
- 4) Use the worksite assessment, input from your sun safety partners, the sun-safe policy planning worksheet on page 11, and the planning grid on page 9 to define your worksite's sun safety goals. (Becoming a sun-safe worksite can be an evolutionary process. Be realistic when setting goals and plan to implement your sun safety program over a one-to two-year period.)

- 5) Write your policy, publicize it, and require employees to read it.
- 6) Monitor its implementation using the sun-safe policy planning worksheet.
- 7) Educate all employees about skin cancer and its prevention through wellness and safety training and written communication (use the Sun Safety Information Sheet on page 18 for reproduction and distribution to employees or publication in newsletters).
- 8) Recognize employees' achievement.

EVALUATION:

Build your evaluation plan around your measurable goals. To monitor progress, use your answers on the Sun-Safe Worksite Assessment as a "snapshot" of your organization's physical environment, schedules, policies, and performance before and after your sun-safe policies are implemented.



Sun safety policy planning worksheet

Worksite: _____ Date: _____

MISSION STATEMENT: To create a worksite environment which promotes sun safety at all levels.

To guide goal-setting, answer the following questions for each goal on a separate sheet of paper:

- Who will do it?
- How often will they do it?
- How will they do it?
- By when will they do it?
- Why will they do it?

Overall goal(s): _____

Year 1 goal(s):

Date goal(s) set: _____

Action Steps

1. _____
2. _____
3. _____

Date goal(s) reviewed: _____

Did you meet your goals?

- All Some None
- All Some None
- All Some None

Year 2 goal(s):

Date goal(s) set: _____

Action Steps

1. _____
2. _____
3. _____

Date goal(s) reviewed: _____

Did you meet your goals?

- All Some None
- All Some None
- All Some None

Year 3 goal(s):

Date goal(s) set: _____

Action Steps

1. _____
2. _____
3. _____

Date goal(s) reviewed: _____

Did you meet your goals?

- All Some None
- All Some None
- All Some None

Assessing your worksite's sun safety

The following questionnaire will help you assess your worksite's sun safety environment, policies, and procedures. Each answer has a score from one to five; put the score for your answer in the far right column and add them up at the end of each section. Scoring is explained on page 15.

Outdoor Worker Sun Safety Behavior Scores

1. What percentage of your outdoor workers wear hats routinely all year long?

- | | | |
|-----------|----------|------------|
| 5 80-100% | 2 20-39% | 0 None |
| 4 60-79% | 1 1-19% | 0 Not Sure |
| 3 40-59% | | |

2. Our outdoor workers most often wear . . .

- | | | |
|--------------------|------------------|-------------------|
| 5 Wide-brimmed hat | 2 Baseball hat / | 0 Most often they |
| 4 Legionnaire hat | hard hat | do not wear hats. |
| 3 Cloth tennis hat | 1 Visor | 0 Not Sure |

3. What percentage of your outdoor workers wear long-sleeved shirts and long pants routinely all year long?

- | | | |
|-----------|----------|------------|
| 5 80-100% | 2 20-39% | 0 None |
| 4 60-79% | 1 1-19% | 0 Not Sure |
| 3 40-59% | | |

4. Our outdoor workers most often wear . . .

- | | | |
|---------------------------------------|-------------------------------------|--|
| 5 Long-sleeved shirt
& long pants | 2 Short-sleeved shirt
and shorts | 0 Most often they do
not wear sun
protective clothing. |
| 4 Short-sleeved shirt
& long pants | 1 Tank top & shorts | 0 Not Sure |
| 3 Long-sleeved shirt
& shorts | | |

5. What percentage of your outdoor workers wear sunglasses or goggles every day?

- | | | |
|-----------|----------|------------|
| 5 80-100% | 2 20-39% | 0 None |
| 4 60-79% | 1 1-19% | 0 Not Sure |
| 3 40-59% | | |

6. What percentage of your outdoor workers wear sunscreen daily at work?

- | | | |
|-----------|----------|------------|
| 5 80-100% | 2 20-39% | 0 None |
| 4 60-79% | 1 1-19% | 0 Not Sure |
| 3 40-59% | | |

Outdoor Worker Sun Safety Behavior (continued)

Scores

7. Our outdoor workers most often use . . .

- | | | | |
|---|---|-------------------------|--------------------------|
| 5 SPF 15-30 (UVA & UVB blocking sunscreen | 3 SPF 15-30 UVB only blocking sunscreen | 2 >SPF 15 sunscreen | <input type="checkbox"/> |
| | | 0 Do not use sunscreen. | |
| | | 0 Not Sure | |

OUTDOOR WORKER SUN SAFETY BEHAVIOR SCORE

Worksite Environment

8. Our organization provides adequate shade at outdoor break areas and job sites.

- | | | | |
|------------------|---------------------|---------------------|--------------------------|
| 5 Strongly Agree | 2 Somewhat Disagree | 0 Strongly Disagree | <input type="checkbox"/> |
| 4 Agree | 1 Disagree | 0 Not Sure | |
| 3 Somewhat Agree | | | |

9. Which of the following forms of shade does your worksite provide?

- | | | | |
|--|--|---------------------|--------------------------|
| 5 Multiple permanent shade structures and trees | 3 Many shade trees or large portable tents | 1 A few shade trees | <input type="checkbox"/> |
| 4 At least one permanent shade structure and trees | 2 Portable shade (tarps, umbrellas) | 0 No shade | |
| | | | |

WORKSITE ENVIRONMENT SCORE

Worksite Policies

10. Our organization encourages outdoor workers to use available shade.

- | | | | |
|----------|-------------|------------|--------------------------|
| 5 Always | 3 Sometimes | 1 Not Sure | <input type="checkbox"/> |
| 4 Often | 2 Rarely | 0 Never | |

11. Our organization encourages outdoor workers to wear hats.

- | | | | |
|----------|-------------|------------|--------------------------|
| 5 Always | 3 Sometimes | 1 Not Sure | <input type="checkbox"/> |
| 4 Often | 2 Rarely | 0 Never | |

12. Our organization encourages outdoor workers to wear sun protective clothing.

- | | | | |
|----------|-------------|------------|--------------------------|
| 5 Always | 3 Sometimes | 1 Not Sure | <input type="checkbox"/> |
| 4 Often | 2 Rarely | 0 Never | |

13. Our outdoor workers are provided with (or given an allowance to purchase) sun-protective clothing, hats, sunglasses and sunscreen for daily use.

- | | | | |
|-------|------------|------|--------------------------|
| 5 Yes | 1 Not sure | 0 No | <input type="checkbox"/> |
|-------|------------|------|--------------------------|

14. Our organization encourages outdoor workers to wear sunglasses when outdoors.

- | | | | |
|----------|-------------|------------|--------------------------|
| 5 Always | 3 Sometimes | 1 Not Sure | <input type="checkbox"/> |
| 4 Often | 2 Rarely | 0 Never | |

Worksite Policies (continued)

Scores

15. **Our outdoor workers are allowed to flex their time around peak sun intensity hours.**

- 5 Always
- 4 Often

16. **Our organization encourages outdoor workers to use sunscreen.**

- 5 Always
- 4 Often

17. **Our organization encourages outdoor workers to follow the daily UV Index for sun precaution measures.**

- 5 Always
- 4 Often

18. **On average, our *outdoor workers* are outdoors. . .**

- 5 1 hour or less per day
- 4 1-2 hours per day

19. **Most of our outdoor workers are outdoors during the hours when the sun's rays are most intense (10 a.m. to 3 p.m.).**

- 5 Always
- 4 Often

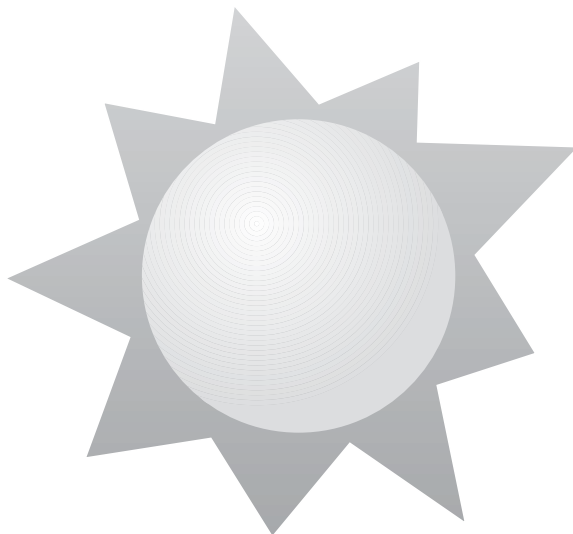
20. **Our outdoor workers are encouraged to work indoors on days of extremely high UV Index forecasts (10+).**

- 5 Always
- 4 Often

WORKSITE POLICIES SCORE

TOTAL SCORE

DATE: _____



Sample sun safety policy (starting points)

In this basic sun safety policy, sun protection is encouraged, not required. The focus is on outdoor workers rather than all workers. Outdoor workers are trained in sun safety precautions and are provided with (or given an allowance to purchase) sunscreen, sunglasses, and sun-safe hats. A more stringent policy would require sun safety precautions by outdoor workers, including a sun-safe uniform, and require sun safety education for all employees.

Exposure to UVR

Ultraviolet radiation (UVR) is invisible light energy from the sun. Cumulative and acute exposure to UVR can damage human skin and eyes causing sunburn, tanning, wrinkling, actinic keratoses, skin cancer, and cataracts.

UVR intensity in any given location varies by climate, elevation, and latitude, primarily. People who live, work or play closer to the equator, at higher altitudes, and in locations with many dry, sunny days have a higher risk of sun exposure, sunburn and skin cancer. UVR increases by 4-10% for each 1000 feet in elevation. Also, the thinning of the Earth's protective ozone layer increases everyone's UVR exposure.

Personal skin type and behavior effect UVR exposure. Specifically, people with fair skin and light blue or green eyes and those who have red or blonde hair and freckle easily have a greater risk of sun damage and skin cancer from UVR overexposure. Regardless of skin type or environment, people with a family history of skin cancer have a greater risk of developing it themselves. Practicing sun safety and reducing sun exposure can help prevent harm to skin and eyes.

Reducing Exposure to UVR

Exposure to UVR cannot be avoided completely. However, the following measures are useful and recommended for reducing outdoor workers' exposure to UVR at the workplace:

Monitor the UV Index Daily

- The Environmental Protection Agency (EPA) and the National Weather Service (NWS) have developed the UV index to indicate the likely level of exposure to UV rays for a particular city on a given day. Each city is given a daily UV Index Forecast on a scale of 0 to 10+. Take more sun safety precautions on days with higher UV index values.
- The UV Index is reported on the Internet www.cpc.ncep.noaa.gov/products/stratosphere/uv_index and in the Weather Section of many daily newspapers.
- Check the UV Index daily and take more sun safety precautions on days with higher UV Index values.

Schedule Outdoor Work Around Peak Sun Intensity Hours

- UVR is most intense between the hours of 10 a.m. and 3 p.m. (peak sun intensity hours).
- Plan outdoor activities for before or after peak sun intensity hours whenever possible.

Use Shade

- If you must be outdoors during peak sun hours, use shade or shaded areas.
- Umbrellas, tarps, tents, and canopies are good sources of portable shade.

Wear Sun-Protective Clothing, Sunglasses, and Hats

- Wear clothing that covers the most skin such as long-sleeved shirts with collars, long pants, socks and shoes.
- Choose tightly-knit fabrics that have fewer or smaller holes between the threads.
- Choose darker colors of fabrics because they absorb UVR better than lighter colors.
- Choose heavier weight fabrics because they tend to block more UVR than lighter weight fabrics.
- Wear wide-brimmed hats with a 3-inch brim all around or a legionnaire's hat with a flap in the back. But any hat is better than no hat at all.
- Wear UVR-blocking sunglasses every day.

Use Sunscreen

- Use sunscreen in addition to cover-up clothing, not in place of it.
- Choose a sunscreen with a Sun Protection Factor (SPF) of 15 or greater. The higher the SPF number, the longer the sunscreen's protection will last.
- Choose broad spectrum sunscreens that block UVA and UVB radiation.
- Choose water-resistant sunscreens that will not wash or sweat off as easily.
- Reapply sunscreen every two hours and after sweating.
- Apply sunscreen 30 minutes before going out in the sun so that the chemicals have time to be absorbed into your skin.
- Use more sunscreen than you think. Apply it liberally over all exposed skin areas.
- Wear sunscreen under insect repellent or make-up.

Some people may experience increased sensitivity to sunlight because of certain medications they take. It is recommended that employees consult their physician about their medications and sun sensitivity. It is also recommended that outdoor workers undergo a thorough skin examination by their physician every year as part of their annual physical.

Sun Safety Equipment and Training Provided

To promote the adoption and practice of sun safety precautions, XYZ Organization provides the following aids to outdoor workers at no expense to employees:

- Broad-spectrum, PABA-free, hypoallergenic, waterproof sunscreen with SPF 30 is available in the Safety Department.
- An annual allowance toward the purchase of a sun-safe work hat or hard hat cover, and UV blocking sunglasses.
- Daily posting of the EPA UV Index in the Human Resources Department, in the Safety Department, and on the XYZ Organization Intranet site.
- Sun safety training is provided to all outdoor workers each year.
- Educational literature on sun safety is available from the Human Resources Department and the Safety Officer.
- Annual skin examinations are covered by the XYZ Organization medical plan.

For more information, call:

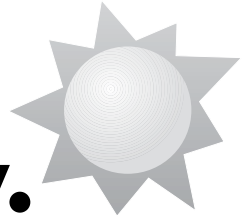
**American Cancer Society
1-800-ACS-2345**

**American Sun Protection Association
303-239-3512**

**National Cancer Institute
1-800-4 CANCER**

Sun Safety Information Sheet

It's Time For **EVERYONE** to take the sun seriously.



THE FACTS

- There are over 1 million new cases of skin cancer in the U.S. each year.
- Skin cancer is the most common cancer in the U.S.; 1 in 5 Americans develop skin cancer.
- Melanoma skin cancer can be deadly; one American dies of skin cancer every hour.
- Most skin cancers are caused by over exposure to the sun's UV rays.
- We get 80% of our lifetime sun exposure by the age of 18.
- Severe sunburns in childhood can double the risk of developing melanoma later in life.

*Nearly all skin cancer can be prevented through sun safety...
Make it a family habit!*

INFANTS

- Do not use sunscreen on babies under 6 months old.
- Cover babies with protective clothing, hats, and sunglasses.
- Shade babies with carrier/stroller covers or umbrellas.

KIDS

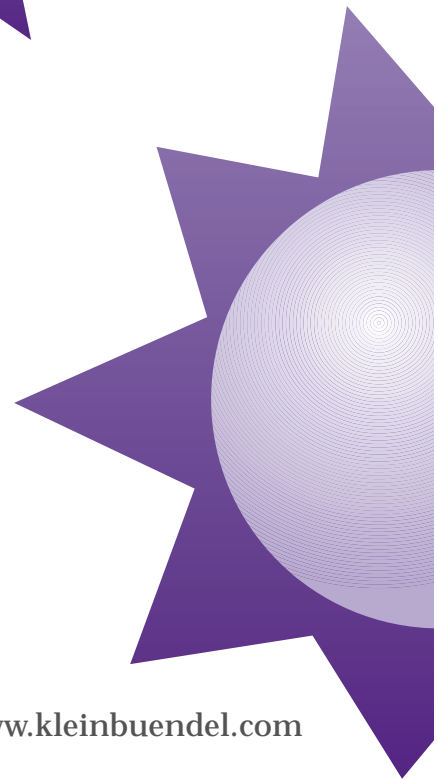
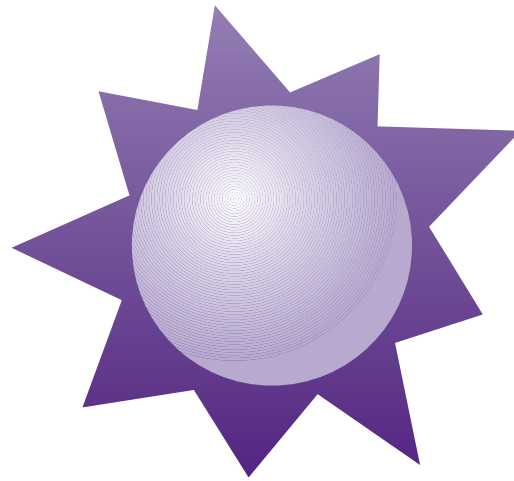
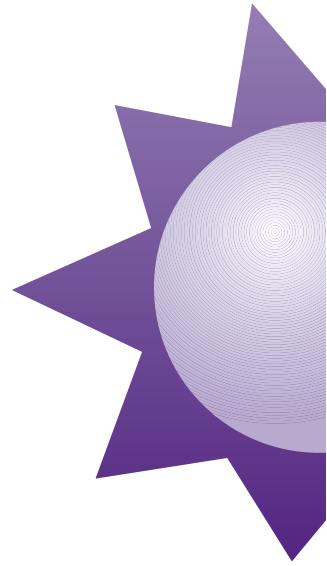
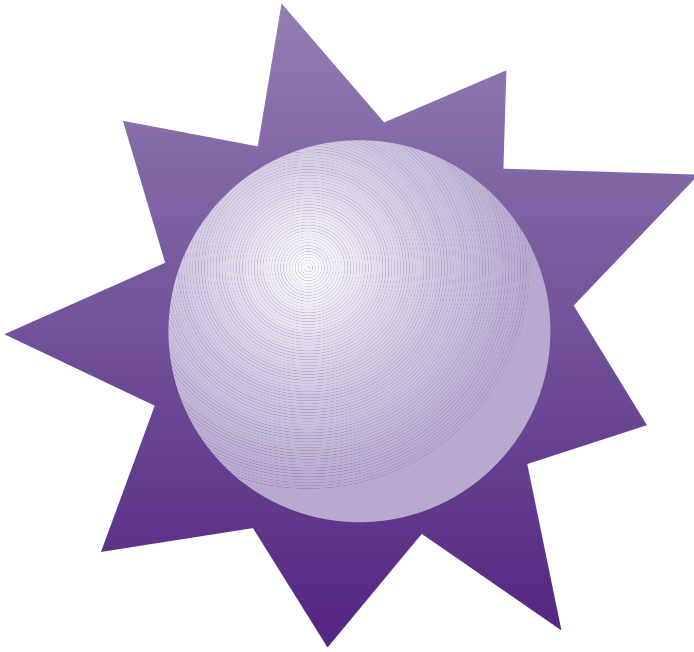
- Apply sunscreen to children every day before school.
- Teach kids to re-apply sunscreen every two hours.
- Teach kids that a sunburn hurts their skin.

ADULTS

- If you sunbathe – STOP!
- Use UVA/UVB SPF 15+ sunscreen every day.
- Avoid tanning lamps, booths and beds.
- Be a role model for your kids.
- Reapply sunscreen every 2 hours.
- Examine your skin for changes.

EVERYONE

- Limit time spent in the sun.
- Avoid peak sun intensity hours (10am-3pm).
- Wear a wide-brimmed hat.
- Stay in the shade.
- Wear sunglasses every day.
- Do not sunburn.
- Wear long-sleeved shirts & long pants.



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