



Sun Safety

What Outdoor-Based Employees Should Know

Sun Safety Is Important!

Safety concerns such as preventing falls, trenching cave-ins, power equipment injuries, and lifting heavy loads represent just a few of the threats to health outdoor employees may commonly encounter. Safety personnel review, plan, and implement numerous protection measures related to construction, maintenance procedures, and other outdoor tasks to safeguard all staff. Yet sun safety is often neglected, despite the sun's dominant, daily presence in the sky.

This oversight persists despite the fact that one in five Americans is expected to eventually get skin cancer, chiefly caused by exposure to ultraviolet (UV) radiation in sunlight. With over one million new cases expected this year, skin cancer is considered an epidemic. Each year there are more new cases of skin cancer than the grand total of new cancers of the prostate, breast, lung, and colon! In addition to skin cancer, exposure to sunlight can cause early aging (wrinkles and blotches), cataracts, and a weakened immune system.

Sunburns and tanning hurt the skin and serve as outward signs of internal skin damage. Health experts place UV rays in the same group as other cancer-causing agents like asbestos, arsenic, and tobacco smoke.

Skin Cancer Rates are Rising

The number of people who get skin cancer has greatly increased during the past 30 years for these and other reasons:

- Modern clothing exposes more skin
- Tanning is falsely viewed as healthy
- Diminishing ozone, high in the sky, that partially protects the earth's surface from receiving UV rays
- General aging of the population
- Many people have moved to sunnier states

California is a Sun Belt state that – for outdoor workers and others – presents a high-risk environment for developing skin cancer.

Three Major Forms of Skin Cancer

There are actually more than 200 types of cancer that may appear in the skin. The three major forms of skin cancer are basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and melanoma – the deadliest form. Skin cancer can develop anywhere on the body but most often appears on surfaces receiving the greatest amount of sunlight. BCC and SCC often take the form of a pale, wax-like, pearly bump or a red, scaly, sharply outlined patch. The patches may crust over, discharge pus, and sometimes bleed.



Cover up!



Wear UV-protective sunglasses!

Seek shade!





If not treated early, SCC may spread to other parts of the body. Fewer than 1 percent of people with SCC or BCC actually die from skin cancer. For many, these two skin cancers can cause some disfigurement based on the amount of damaged skin a physician would have to remove. Fortunately, skin cancer can be easily cured, in most cases, if the disease is treated in its early stages.

Malignant melanoma is the most dangerous skin cancer. It often arises from or near a mole. An individual should see his or her doctor (especially a dermatologist) if a mole or growth appears that has one or more of the following features:

- If divided in half, the two resulting parts would have different shapes
- It has jagged or rough edges
- It has two or more colors (which may be mixed together)
- It is wider than a standard pencil eraser

Melanoma often appears on parts of the body not regularly exposed to sunlight. While light-skinned people have a greater risk of getting melanoma, this disease is increasing among people of color. Melanoma often results in death if it moves into internal organs such as the lungs, liver, or brain.

Personal Risk Factors

While anyone can get skin cancer – regardless of skin color – those with light skin are at greater risk. People are more likely to develop skin cancer if they have one or more of the following characteristics:

- Fair skin
- Blue, green, or hazel eyes
- Light-colored hair
- Freckles
- A tendency to burn rather than tan
- A history of severe sunburns
- Have many moles (over 50)
- A personal or family history of skin cancer.
- Outdoor worker

Timing and Environmental Sun Safety Issues

UV radiation is more intense during certain times of the day and under specific conditions:

- From 10 a.m. to 4 p.m.
- When there is a lack of thick cloud cover
- From mid-spring through mid-fall (also during winter at higher elevations)
- At higher altitudes (UV rays concentrate an extra 5 percent for each 1,000 foot increase in elevation.)

It is important to remember that outdoor work environments – especially between 10 a.m. to 4 p.m., from March through October – can be likened to a **radiation chamber**. Also, reflective surfaces like snow, water, and glass can direct additional UV rays toward people.



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Avoid Heat Illness

In addition to UV rays, the sun emits heat which – at higher temperatures – can cause heat exhaustion, heat stroke, heat cramps, and other undesirable conditions. In rare cases, overheating can cause death.

To learn more about the dangers and prevention of heat illness, contact the California Department of Industrial Relations. Visit _____

You may also call

Skin Cancer Prevention

The recommended practices for preventing skin cancer include the following:

- Reduce sun exposure from 10 a.m. to 4 p.m., when UV rays are strongest. (This is especially important from mid-spring through mid-fall.)
- Wear a wide-brimmed hat (at least 4-inch brim) that produces a shadow that covers the head, face, and neck.
- Wear tightly woven, loose-fitting clothing that covers as much of the body as possible, weather permitting.
- When feasible, stay in the shade (trees, physical structures).
- Wear sunglasses that provide 99 – 100 percent UVA and UVB (broad-spectrum) protection. Prescription glasses can have an UV-protective coating applied to the lens.
- Liberally apply sunscreen to exposed skin 15 minutes before going outdoors. The sunscreen container should specify a sun protection factor (SPF) of 30 or higher and should state that it provides broad-spectrum (UVA and UVB) protection. Look for mexoryl, zinc oxide (z-cote), or avobenzone in the active ingredients list to help assure maximum sunscreen effectiveness. Depending on outdoor conditions, sunscreen should be reapplied at least every two hours.
- Individuals with sensitive skin may want to test a new sunscreen on a small portion of skin to see if any negative reactions occur within 24 hours.
- Use lip balm with a SPF of 30 or higher.
- Avoid tanning salons, booths, and sunlamps.

• **CAUTION!** Don't depend on sunscreen alone to protect you from skin cancer. Instead, rely as much as possible on a combination of all the tips listed.

Crew supervisors should model sun-protective behaviors. Employees may want to utilize a skin cancer prevention “buddy system“ to reinforce and support their commitment to practice sun safety. Skin cancer prevention education materials should be taken home by employees to encourage their spouses (as applicable) and children to adopt sun-protective behaviors.



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On a personal level, employees should use a hand mirror to perform a self skin examination every one to three months to check moles and other possible signs of skin cancer as previously described. See a dermatologist if you suspect any problems. Visit www.skincancer.org to view pictures of skin cancer. Select a skin cancer name, then click on "Warning Signs." Also check out the Website's "self-examination" section.

Skin Cancer Treatment

Eighty to 90 percent of skin cancers are treated with surgery. Other solutions include radiation therapy, electrodesiccation (tissue destruction by heat), cryosurgery (tissue destruction by freezing), laser therapy, and drug therapy.

Description of California Department of Health Services -

Skin Cancer Prevention Program

The Skin Cancer Prevention Program (SCPP), a unit within the California Department of Public Health, produced the module *Sun Safety Kit for Outdoor-Based Businesses* which includes this fact sheet. Distribution of this kit is part of a larger campaign to increase public awareness and practice of recommended sun-safety behaviors. SCPP utilizes education modalities, policy development, and media productions to advance its objectives. The primary target groups are children under 14 years of age, their parents and other care providers, along with outdoor workers. If you have questions or comments about skin cancer or this kit, please contact the SCPP at:



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Remember to protect the skin you're in!

