

22.09 Sun Safety

Long term exposure to the sun is the leading cause of skin cancer. Skin cancer rates have increased dramatically in the last few decades with 90 percent of skin cancers linked to sun exposure. The damage from exposure accumulates over time. There are more than 200 different forms of cancer; however, there are only three major forms that actually originate in the skin.

Basal cell carcinomas are the most common and are easily treated. They usually appear as slow growing fleshy bumps or nodules. Basal cell can be found anywhere on the body but is more likely to be on the face, neck, or hands. These tumors do not spread quickly and may take months to reach the diameter of one-half inch.

Squamous cell carcinoma may also appear as a nodule or as a red scaly patch. The second most common skin cancer, squamous cell is generally found on the face, hands, ears, lips and mouth. This cancer will develop into large masses and can spread to other parts of the body.

Malignant Melanoma is the least common but most aggressive and deadly of the three major forms of skin cancer. It usually begins as a light brown or black flat spot with irregular borders that may later become multi-colored with red, blue violet or white. It often grows from a mole.

Lighter/fair skin has less protective melanin (the pigment that gives skin its color). When skin is exposed to ultraviolet (UV) light, more melanin than normal is released in order to protect the skin from damage. This darkening that appears as a “tan” actually signifies damage to the skin is taking place. Sunburn is another form of sun damage that can play a role in the development of skin cancer. Exposure to ultraviolet UV light also contributes greatly to premature aging of the skin and wrinkles, cataracts and a weakened immune system.

Protecting yourself against the solar hazard

The sun’s UV intensity varies by location and season. The UV Index is published online by zip code every day by the EPA and the National Weather Service. The scale goes from 0 to 11+. Sun protection is recommended when the Index is a 3 or more. UV is considered high when the Index is at 6 and very high at 8. In general, UV is strongest in summer months. UV is also strongest in the middle of the day when the sun is directly overhead. Sun protection is needed most between the hours of 10:00 am and 4:00 pm. Check the UV Index every day to know when to take sun precautions.

Physically blocking the rays from the sun with clothing and shade is the best defense. Whenever possible, wear wide-brimmed hats, long-sleeved shirts and other clothing with a tight weave. It is also recommended to wear sunglasses that provide 99-100% protection from UV rays. While many of the available safety glasses provide different levels of protection, employees are encouraged to utilize sunglasses or safety glasses that provide the highest percentage of protection possible against UV rays.

[DOT NAME] Districts or Divisions may purchase sunscreen for employee use if they choose. Sunscreen may be purchased over the counter or directly from the local district warehouse if it is stocked. In cases where [DOT NAME] is supplying sunscreen, there should be several brands or types available (lotion, spray, oil). If an employee, supervisor, or manager chooses to purchase sunscreen, it is recommended that it have a minimum Sun Protection Factor (SPF) of 30 for several hours of protection (including reapplication during the day). Sunscreens should be purchased and tested by the user to find the type

and brand best suited to their needs. Apply according to directions and conditions. SPF protection differs between brands, users, altitude and proximity to the equator. Not all sunscreens protect uniformly from both UVA and UVB radiation and one should guard against a false sense of security from their use.

Use shade and scheduling to reduce over-exposure to UV when necessary and/or possible. For example, use the shade canopies that come with heavy equipment; take lunch breaks indoors, in a vehicle, or in the shade on high-UV days; or schedule meetings and trainings indoors at midday (instead of first thing in the morning or at the end of the work day) on high-UV days.

A comprehensive sun safety training program (online video) is available for all supervisors and employees. Supervisors are [allowed/encouraged/ required] to have all employees complete the video training, including new hires. Supervisors are also [allowed/encouraged/required] to disseminate sun protection information in regular safety meetings, in print materials, at health events, and on Department of Transportation websites and/or social media pages, as appropriate.

It is recommended that trainings and materials include information to encourage employees to check their skin regularly for signs of skin cancer. Sores that do not heal or moles that have changed in size, shape, or color should be reported to a health care provider.

Contractors and subcontractors to the Department of Transportation are [allowed/encouraged/ required] to follow this sun protection guidance.