

Working Outdoors FactSheet

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Hot summer months pose special hazards for outdoor workers who are exposed to heat, sun, and other hazards. Employers and workers should know the potential hazards in their workplaces and how to manage them.

Sun

Sunlight contains ultraviolet (UV) radiation, which causes premature aging of the skin, wrinkles, cataracts, and skin cancer. There are no safe UV rays or safe suntans. Workers who burn easily, spend a lot of time outdoors, or have any of the following physical features: numerous, irregular, or large moles; freckles; fair skin; or blond, red, or light brown hair should be especially careful in the sun. There are several ways workers can block harmful rays:

- **Cover up.** Wear tightly woven clothing that you can't see through.
- **Use sunscreen.** A sun protection factor (SPF) of at least 15 blocks 93 percent of UV rays. Be sure to follow application directions on the bottle or tube.
- **Wear a hat.** A wide brim hat, not a baseball cap, works best because it protects the neck, ears, eyes, forehead, nose, and scalp.
- **Wear UV-absorbent shades.** Sunglasses don't have to be expensive, but they should block 99 to 100 percent of UVA and UVB radiation. Before you buy, read the product tag or label.
- **Limit exposure.** UV rays are most intense between 10 a.m. and 4 p.m.



Heat

The combination of heat and humidity can be a serious health threat during the summer months and working outdoors puts workers at risk for heat-related illnesses. Workers are at increased risk for heat-related illnesses when they:

- use improper work methods;
- are not accustomed to hot temperatures or high humidity;
- are over the age of forty;
- are in poor physical condition or overweight;
- use certain medications, such as antihistamines, diuretics, and some tranquilizers;
- have had prior heat-related illnesses;
- use drugs or alcohol within 24 hours prior to working in the heat;
- have heat rash or sunburn; or
- wear restrictive or too much clothing.

Heat Exhaustion

Heat exhaustion is a mild form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone to heat exhaustion are elderly workers, workers with high blood pressure, and workers working in hot environments.

Warning signs of heat exhaustion include:

- heavy sweating;
- paleness;
- muscle cramps;
- tiredness;
- weakness; dizziness;
- headache;
- nausea or vomiting; and/or fainting.



Cooling measures that may be effective include:

- cool, nonalcoholic beverages;
- rest;
- cool shower, bath, or sponge bath;
- lightweight clothing.

Heat Rash

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. Heat rash looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases. The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Dusting powder may be used to increase comfort, but avoid using ointment or creams. Treating heat rash is simple and usually does not require medical assistance.

Sunburn

Sunburn should be avoided because it damages the skin. Although the discomfort is usually minor and healing often occurs in about a week, a more severe sunburn may require medical attention.

Consult a doctor if these symptoms are present:

- fever;
- fluid-filled blisters;
- severe pain.

Also, remember these tips when treating sunburn:

- avoid repeated sun exposure;
- apply cold compresses or immerse the sunburned area in cool water;
- apply moisturizing lotion to affected areas, not salve, butter, or ointment; and
- do not break blisters.

Heat Stroke

Heat stroke occurs when the body is unable to regulate its temperature. The body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. The body temperature of the workers may rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided immediately.

Recognizing Heat Stroke

Warning signs of heat stroke vary, but may include the following:

- an extremely high body temperature (above 103°F, orally);
- red, hot, and dry skin (no sweating);
- rapid, strong pulse;
- throbbing headache;
- dizziness;
- nausea; and
- unconsciousness.

If a worker shows signs of heat stroke have someone call for immediate medical assistance and cool down the victim. Do the following:

- Get the victim to a shaded area.
- Get medical assistance as soon as possible.
- Cool the victim using whatever methods available.
- For example, immerse the victim in a tub of cool water; place the victim in a cool shower; spray the victim with cool water from a garden hose; sponge the victim with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan him or her vigorously.
- Monitor body temperature, and continue cooling efforts until the body temperature drops to 101°-102°F.
- If emergency personnel are delayed call 911 for further instructions.
- Do not give the victim alcohol to drink.

Sometimes a victim's muscles will begin to twitch uncontrollably as a result of heat stroke. If this happens, keep the victim from injuring himself, do not place any object in the mouth and do not give fluids. If there is vomiting, make sure the airway remains open by turning the victim on his or her side.

Lyme Disease

Lyme disease is caused by bites from infected ticks. Most, but not all, victims will develop a "bull's-eye" rash. Other signs and symptoms may be non-specific and similar to flu symptoms such as fever, lymph node swelling, neck stiffness, generalized fatigue, headaches, migrating joint aches or muscle aches. Outdoor workers whose work involves construction, landscaping, forestry, brush clearing, land surveying, farming, railroads, oil fields, utility lines, or park and wildlife management are at an increased risk for Lyme Disease. Workers can protect themselves against ticks:

- Wear light-colored clothes to see ticks more easily.
- Wear long sleeves; tuck pants legs into socks or boots.
- Wear high boots or closed shoes that cover your feet completely.
- Wear a hat.
- Use tick repellants, but not on face.
- Shower after work. Wash and dry work clothes at high temperature.
- Examine your body for ticks after work.
- Remove any attached ticks promptly with fine-tipped tweezers. Do *not* use petroleum jelly, a hot match, or nail polish to remove the tick.

West Nile Virus

Illness from the West Nile virus is rare, but it does happen. Mild symptoms include fever, headache, and body aches, occasionally with a skin rash on the trunk of the body and swollen lymph glands. Symptoms of severe infection include headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. Getting rid of standing water in containers such as discarded tires, buckets, and barrels helps reduce mosquito-breeding areas. Workers can protect themselves from mosquito bites in these ways:

- Apply insect repellent with DEET (N, N-diethyl-m-toluamide) to exposed skin.
- Spray clothing with repellents containing DEET or permethrin.
- Wear long sleeves, long pants, and socks.

Be extra vigilant at dusk and dawn when mosquitoes are most active.

Employers can protect workers by establishing the following practices:

- Train all employees on the signs and symptoms of heat-related illnesses and how to respond;
- Schedule the hardest work during cooler times of the day;
- Schedule workers to work in pairs;
- Provide frequent, short breaks in cool shaded areas;
- Provide plenty of cool water and encourage workers to drink one cup every 15 to 20 minutes;
- Provide adequate ventilation in hot work areas with the use of fans, blowers, air conditioning, increased insulation on furnace walls, and shields around hot machines or furnaces; and
- Provide tools and equipment that reduce physical demands on workers.

To prevent heat-related illness workers are encouraged to:

- Wear light-colored, loose fitting, breathable (preferably cotton) clothing; and
- Avoid eating large meals or consuming caffeine or alcoholic beverages before and during work in hot environments.

This Factsheet was published with information from the Centers for Disease Control, the Occupational Safety and Health Administration, and the Texas Workers' Compensation Commission.

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