

Avoiding Heat-Related Illnesses

By Paul F. Ampey

Summer can be brutal on a shotcreter when outside ambient temperatures hover near or above 90°F (32°C) and the relative humidity is high. Take those factors into account with the heat that concrete gives off when curing and you have a recipe for heat illnesses if precautions aren't in place. Employers are reminded to train managers, supervisors, and employees on how to protect themselves from heat illness. All workers need to drink plenty of water and take breaks in the shade as temperatures rise.

Workers who are exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers, as it may result in sweaty palms, fogged-up safety glasses, and dizziness.

Employers should take four basic steps at all outdoor work sites to prevent heat illness:

1. Implement a written heat illness prevention program;
2. Provide heat illness training to all supervisors and employees;
3. Make water readily available and encourage each employee to drink four 8 oz (237 mL) cups per hour; and
4. Provide access to shade or any cool area out of the sun for at least 5 minutes at a time to recover.

Here are some additional steps to take to avoid heat illness:

- *Acclimate:* New employees who are unaccustomed to working under hot conditions are the most vulnerable. They must be monitored carefully. If possible, begin work earlier in the day when it's cooler or gradually work up to a full schedule.
- *Ice It Up:* Use ice in your water and make it available for ice packs to cool the body. Potable

drinking water should be available in quantities of at least one quart per employee per hour for the entire shift. Be sure to replenish the potable water containers on an effective schedule. Drinking water should be placed as close as practicable to workers and drinking containers should be kept clean.

- *Drink Up:* Encourage employees to drink frequently—an 8 oz (237 mL) cup every 15 minutes, even if they are not thirsty.
- *Drinks to Avoid:* Drinks with caffeine, alcohol, and large amounts of sugar.
- *Made in the Shade:* Make sure everyone has a place to cool off: Use pop-up umbrellas or canopies to provide a shady rest area for those who work outdoors. Sufficient shaded areas should accommodate 25% of the work force. Access to shade should be permitted at all times; encourage employees to take cool-down time periods of at least 5 minutes.
- *Hot Weather Fashion:* Avoid non-breathing synthetic clothing. Wear light-colored, loose-fitting, breathable clothing such as cotton. Also, body-cooling clothing, such as vests, leggings, and collars, helps to lower body temperature.
- *Monitor:* Implement a buddy system where workers and supervisors monitor one another.
- *Training:* Employees should be trained to recognize the symptoms of heat-related illnesses, become familiar with the appropriate first aid measures to treat them, and have a means to call emergency services.

REMEMBER: THE FIRST STEP IS PREVENTION.

Source: Cal/OSH and www.osha.gov.



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