General Duty Clause
Section 5 of the Occupational Safety and Health Act (OSHA) of 1970:

(a)(1) Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(a)(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

Related OSHA Regs
Recordkeeping
29 CFR 1904.7
Agriculture
29 CFR 1928.110
Construction
29 CFR 1926.28
29 CFR 1926.50
29 CFR 1926.51
General Industry
29 CFR 1910.132
29 CFR 1910.141
29 CFR 1910.151
Longshoring
29 CFR 1918.95
29 CFR 1918.97
Marine Terminals
29 CFR 1917.26
29 CFR 1917.95
29 CFR 1917.127
Shipyard
29 CFR 1915.152
29 CFR 1915.87
29 CFR 1915.88

Introduction
Long, hot summer workdays are here again. In order to work effectively in these conditions, certain precautions must be taken. Over-exposure to high temperature and humidity levels during prolonged physical exertion may result in heat disorders such as Heat Cramps, Heat Exhaustion, or Heat Stroke. Common sense and thoughtful scheduling is the best way to prevent heat-related illnesses.

Phases of Heat Stress
Operations involving very hot environments or poorly ventilated work-spaces should be avoided during the peak heat hours of the day. Fluids and salts (electrolytes) lost through heavy sweating must be continuously replaced. Commercially available sports drinks such as Gatorade or Powerade contain the extra salts. Drinking plenty of these kinds of fluids and doing everything needed to keep your core body temperature within manageable levels is imperative.

Let’s take a look at the progressions of the three primary categories of over-heating.

HEAT CRAMPS — Phase I – (also includes heat syncope). This condition results from over-exertion and heavy sweating. Heat Cramps are severe muscle spasms that often begin suddenly in the hands, calves, or feet; they are painful and disabling. This is caused from salt depletion as sweat losses are replaced by water alone. The muscles become hard, tense, and difficult to relax.

HEAT EXHAUSTION — Phase II – (also called heat prostration). This condition results from prolonged exposure to extreme heat for many hours. This causes excessive fluid loss from heavy sweating, leading to increased fatigue, weakness, anxiety, drenching sweats, low blood pressure, faintness, and sometimes collapse. The over-heating is due to the electrolytic fluid loss that reduces blood volume, which lowers blood pressure and the pulse.

HEAT STROKE — Phase III – DANGER – (sometimes called sunstroke). This life threatening condition is caused by over-exertion and over-exposure in extreme heat environments. Heat Stroke is imminent when the core body temperature approaches 106°F (41°C); any higher may result in coma, or even death. The symptoms are dizziness, weakness, emotional instability, nausea/vomiting, confusion, delirium, blurred vision, convulsions, collapse, & unconsciousness. The skin is flushed, hot to the touch, and at first may be covered with sweat that soon dries. Be aware of these warning signals.

Call us to schedule your next HEAT STRESS PREVENTION training! 855-2-EHSINC
Drinking Water Requirements

Employees should drink one quart or more per hour.

Approximately 2 gallons per employee or more for an 8-hour shift.

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Heat Index

For people working outdoors in hot weather, both air temperature and humidity affect how hot they feel. The “heat index” is a single value that takes both temperature and humidity into account. The higher the heat index, the hotter the weather feels, since sweat does not readily evaporate and cool the skin. The heat index is a better measure than air temperature alone for estimating the risk to workers from environmental heat sources.

IMPORTANT NOTE: The National Oceanic and Atmospheric Association (NOAA) devised the heat index value for shaded conditions and light winds. Full sunshine can increase heat index values by up to 15% Fahrenheit. Strenuous work and the use of heavy PPE also have an additive effect. As a result, the risk as a specific heat index could be higher than that listed in the table above if the work is in direct sunlight without a light breeze, or if work involves strenuous tasks or the use of heavy PPE. Extra measures, including implementing precautions at the next risk level, are necessary under these circumstances.

Shade Requirements

When the temperature exceeds 85 degrees F, provide shade or timely access to shade. When the temperature does not exceed 85 degrees F, provide shade or timely access to shade upon request.

SERIOUS HAZARD: When the outdoor temperature in the work area exceeds 85 degrees F, and no shade is present. **YOU RISK A SERIOUS CITATION!**

IMMINENT HAZARD: When the outdoor temperature in the work area exceeds 90 degrees F, and no shade is present. **YOU RISK GETTING SHUT DOWN!**

Currently there are 25 states that develop and operate their own safety and health programs in the workplace so be sure to check if your state applies.

Resources

OSHA - Occupational Safety and Health Administration
www.osha.gov

Visit us on the web:
www.ehsInc.org
www.agc-ca.org