



San Diego Unified School District

***Heat
Illness
Prevention
Plan***

Safety Office

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Introduction

Title 8, California Code of Regulations, section 3395 requires employers with outdoor work sites to take 4 steps to prevent heat illness. 1) Provide heat illness training to employees including supervisors. 2) Provide fresh water for employees and encourage them to drink it. 3) Provide access to shade for employees who believe they need a preventative recovery period. 4) Develop and implement written procedures for complying with the heat illness prevention standard.

Purpose

- The purpose of this Heat Illness Prevention Plan is to prevent heat related illnesses.
- This information is intended and must be used in conjunction with the San Diego Unified School District Injury/Illness Prevention Program, (IIPP).
- The Heat Illness Prevention Plan establishes procedures and provides information which is necessary to ensure that employees are knowledgeable in the prevention and recognition of heat related illnesses to ensure their own safety and the safety of others.

Heat Illnesses Prevention and First Aid

Background

Heat related illnesses are avoidable if supervisors and employees are trained and the right actions are taken before, during, and after working in either indoor or outdoor hot conditions. High temperature and humidity can stress the body's ability to cool itself making heat illness a big concern, especially during hot weather periods. Every employee whose job duties require them to work outdoors in the summer months are exposed to elevated heat conditions and therefore are susceptible to heat illness.

The three major forms of heat illness are: heat cramps, heat exhaustion, and heat stroke. Heat stroke can be a life threatening condition. This plan describes the three major forms of heat illness, how to recognize them, and what actions to take. The plan also provides prevention information.

Heat Cramps

Description:

Heat cramps are the most common type of heat related illness and probably have been experienced by most people at one time or another. Heat cramps are muscle spasms which usually affect the arms, legs, or the stomach. Frequently they do not occur until sometime later after work, at night, or when relaxing. Heat cramps are caused by heavy sweating, especially when water is not replaced quickly enough. Although heat cramps can be quite painful they usually do not result in permanent damage.

Prevention/First Aid:

Drink plenty of water during the day to help keep your body hydrated during hot weather. If employee shows signs of illness contact your supervisor, in an emergency call 911.

Heat Exhaustion

Description:

Heat exhaustion is more serious than heat cramps. It occurs when the body's internal temperature regulating system is overworked but has not completely shut down. In heat exhaustion the skin surface blood vessels and capillaries, which originally enlarged to cool the blood, collapse from loss of body fluids and necessary minerals. This happens when you do not drink enough fluids to replace what you are sweating away.

Symptoms of heat exhaustion include: headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse (120 – 200), and low to normal blood pressure.

Prevention/First Aid:

The employee suffering these symptoms should be moved to a cool location such as a shaded area or air-conditioned building if available. Have them lie down with their feet slightly elevated. Loosen their clothing, apply cool wet cloths or fan them. Have them drink water. Try to cool them down and have them checked by medical personnel at one of the district approved medical centers. Victims of heat exhaustion should avoid strenuous activity for at least a day and they should continue to drink water to replace lost body fluids. Call 911 if the person becomes non-responsive, refuses water, vomits, or loses consciousness.

Heat Stroke

Description:

Heat stroke is a life threatening illness with a high mortality rate. It occurs when the body has depleted its supply of water and salt and the victims core body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or heat exhaustion before progressing into the heat stroke stage but this is not always the case. It should be noted that, on the job, heat stroke is sometimes mistaken for a heart attack. It is therefore very important to be able to recognize the signs and symptoms of heat stroke and to check for them any time an employee collapses while working in a hot environment.

Symptoms of heat stroke include: A high body temperature (103 degrees F); a distinct absence of sweating (usually); hot red or flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; any/all of the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting, or confusion, and possibly more severe symptoms including; bizarre behavior and high blood pressure. Advanced symptoms may include seizure or convulsions, collapse, loss of consciousness, and a body temperature over 108 degrees F.

Prevention/First Aid:

It is vital to lower a heat stroke victim's body temperature. Quick actions can mean the difference between life and death. Pour water on the victim, fan them and apply cold packs. Call 911 to get medical attention as soon as possible.

Precautions to prevent Heat Illnesses

- **Acclimatization:** Condition yourself for working in hot environments. Start slowly then build up to more physical work. Allow your body to adjust over a few days.
- **Hydration:** Supervisors should provide frequent reminders to employees to drink plenty of water. During hot weather periods more frequent water breaks shall be allowed and encouraged.

Drink plenty of liquids. Hydration is a continuous process, do not wait until you are thirsty, by then there is a good chance that you are already on your way to being dehydrated. Electrolyte drinks are good for replacing both water and minerals lost through sweating. Never drink alcohol and avoid caffeinated beverages like coffee and soda as these liquids can

have the opposite effect and can actually increase the level of dehydration.

- **Breaks:** Take frequent breaks in shaded or air conditioned areas, especially if you notice you are getting a headache, start feeling over heated, or begin to show any of the other symptoms of a heat related illness.
- **Provision of Water:** Ensure that an adequate amount of clean potable water is available at the job site prior to commencing work. Developed sites have adequate supplies of water via fountains, sinks & outdoor spigots. Un-developed sites are accessed by PPO staff on occasion, when visiting these sites employees should have fresh potable water on the work truck. Plan on having enough water to provide 1 quart per hour for each person. In addition, single use cups or multi-use cups assigned to each employee must be provided.
- **Access to Shade:** At developed sites such as schools access to shade is readily available and should be taken advantage of whenever employees are suffering from a heat illness or believe that a preventative recovery period is needed. Access to shade will be available to all employees at all times for a period of no less than 5 minutes.

When employees travel to undeveloped locations such as vacant lots during hot weather supervisors must ensure that shade is provided via the use of umbrellas, canopies or other portable devices. The portable shade devices shall be set up as close to the work location as possible.

- Wear lightweight, light colored clothing.
- Immediately report all unsafe conditions to your supervisor.
- For additional information contact the safety office at (858)637-3698.

OSHA Quick Cards for Heat Stress

OSHA QUICK CARD™

Protect Yourself Heat Stress



When the body is unable to cool itself by sweating, several heat-induced illnesses such as heat stress or heat exhaustion and the more severe heat stroke can occur, and can result in death.

Factors Leading to Heat Stress

High temperature and humidity; direct sun or heat; limited air movement; physical exertion; poor physical condition; some medicines; and inadequate tolerance for hot workplaces.

Symptoms of Heat Exhaustion

- Headaches, dizziness, lightheadedness or fainting.
- Weakness and moist skin.
- Mood changes such as irritability or confusion.
- Upset stomach or vomiting.

Symptoms of Heat Stroke

- Dry, hot skin with no sweating.
- Mental confusion or losing consciousness.
- Seizures or fits.

Preventing Heat Stress

- Know signs/symptoms of heat-related illnesses; monitor yourself and coworkers.
- Block out direct sun or other heat sources.
- Use cooling fans/air-conditioning; rest regularly.
- Drink lots of water; about 1 cup every 15 minutes.
- Wear lightweight, light colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, or heavy meals.

What to Do for Heat-Related Illness

- Call 911 (or local emergency number) at once.

While waiting for help to arrive:

- Move the worker to a cool, shaded area.
- Loosen or remove heavy clothing.
- Provide cool drinking water.
- Fan and mist the person with water.

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3064-07R-06

OSHA DATOS RÁPIDOS

Protéjase del Estrés por calor



Cuando el cuerpo no puede bajar su temperatura mediante el sudor, pueden ocurrir varias enfermedades debido al calor, tales como estrés o agotamiento por calor e insolación o golpe de calor, las cuales pueden resultar en la muerte.

Factores que llevan al estrés por calor

Alta temperatura y humedad, calor o sol directo, movimiento limitado de aire, esfuerzo físico, pobre condición física, algunas medicinas y tolerancia inadecuada para lugares de trabajo calurosos.

Síntomas de agotamiento por calor

- Dolores de cabeza, mareos, vértigo o desmayo.
- Debilidad y piel húmeda.
- Cambios de humor como irritabilidad o confusión.
- Náuseas o vómitos.

Síntomas de insolación

- Piel seca y caliente sin sudor.
- Confusión mental o pérdida de conocimiento.
- Convulsiones o ataques.

Evita el estrés por calor

- Conozca las señales y los síntomas de las enfermedades relacionadas al calor; obsérvese a sí mismo y a sus colegas.
- Bloquee el sol directo u otras fuentes de calor.
- Utilice ventiladores (abanicos) o aire acondicionado; descárgase con regularidad.
- Beba mucha agua, como 1 taza cada 15 minutos.
- Vístase con ropa ligera, de colores claros y no ajustada.
- Evite el alcohol, bebidas con cafeína o comidas pesadas.

Qué hacer en caso de enfermedades relacionadas al calor

- Llame al 911 (u otro número local para emergencias) inmediatamente.

Mientras espera por ayuda:

- Mueva a la persona a un lugar fresco y sombreado.
- Sueltele o quitele la ropa pesada.
- Ofrézcale agua fresca para beber.
- Abanique y rocíe con agua a la persona.

Para información más completa:

OSHA Administración de Seguridad y Salud Ocupacional
Departamento del Trabajo de EE.UU.
www.osha.gov (800) 321-OSHA