HEAT ILLNESS PREVENTION PLAN FOR SUTTER COUNTY SUPERINTENDENT OF SCHOOLS

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1.0 PURPOSE

The purpose of Heat Illness Prevention Plan is to meet the requirements set forth in California Code of Regulations, Title 8, and also to serve as a supplement to Sutter County Superintendent of School's Injury and Illness Prevention Program (IIPP). This information is intended and must be used in conjunction with the IIPP. The Heat Illness Prevention Guide establishes procedures and provides information which is necessary to ensure that employees of Sutter County Superintendent of Schools are knowledgeable in the prevention and recognition of heat stress to ensure their own safety and the safety of others.

2.0 HEAT ILLNESS PREVENTION

Heat related illnesses are avoidable if the employees are trained and the right actions are taken before, during, and after working in either indoor or outdoor hot conditions. High temperatures and humidity can stress the body's ability to cool itself making heat illness a big concern during hot weather months. Every employee whose job duties require them to work in the outdoors during summer months, are exposed to elevated heat conditions and therefore are susceptible to heat illness. The major forms of heat illnesses are: **heat stroke**, **heat exhaustion**, **heat cramps**, **fainting**, **and heat rash**. Heat illness can be a life threatening condition. This document will outline those actions as well as describing the major forms of heat illness, how to recognize them, and what actions to take to provide first aid before medical care is provided.

2.1 Heat Stroke

Description: Heat stroke, the most serious health problem for workers in hot environments, is caused by the failure of the body's internal mechanism to regulate its core temperature. Sweating stops and the body can no longer rid itself of excess heat. Signs include (1) mental confusion, delirium, loss of consciousness, convulsions or coma; (2) a body temperature of 106 degrees F or higher; and (3) hot dry skin which may be red, mottled, or bluish. Victims of heat stroke will die unless treated promptly.

Symptoms 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 the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting, or confusion, and possibly more severe systems including; bizarre behavior; and high blood pressure. Advance symptoms may be seizure or convulsions, collapse, loss of consciousness, and a body temperature of 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 them, fan them, or apply cold packs. Call 911 to get the person medical aid as soon as possible.

2.2 Heat Exhaustion

Description: Heat exhaustion results from loss of fluid through sweating when a worker has failed to drink enough fluids or take in enough salt or both. The worker with heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. The skin is clammy and moist, the complexion pale or flushed, and the body temperature is normal or slightly higher.

Symptoms 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. Have them lie down with their feet slightly elevated. Loosen their clothing, apply cool, wet cloths or fan them. Have them drink water or electrolyte drinks. Try to cool them down, and have them checked by medical personnel. 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.

2.3 Heat Cramps

Description: Heat cramps, painful spasms of the muscles, are caused when workers drink large quantities of water but fail to replace their bodies' salt loss. Tired muscles -- those used for performing the work -- are usually the ones most susceptible to cramps.

Prevention/First Aid: Drink electrolyte solutions such as Gatorade or plenty of water during the day and try eating more fruits such as bananas to help keep your body hydrated during hot weather. Call 911 or contact your supervisor immediately if the person becomes ill.

2.4 Fainting

Description: Fainting, which medical professionals call syncope (pronounced SIN-ko-pea), is a temporary loss of consciousness. Unlike a seizure, the person who faints usually regains alertness soon after regaining consciousness. Fainting is caused by a temporary loss of the brain's blood supply. Fainting can sometimes be a sign of a more serious condition. Fainting may be a problem for the worker not acclimated to a hot environment who simply stands still in the heat.

Prevention/First Aid: When you feel like you're going to faint, find a safe place to lie down and if possible, lift your legs up. This allows gravity to keep blood flowing to your brain. If you can't lie down, sit down and put your head between your knees. Don't stand up until you no longer feel like you're going to faint.

Employees who have already fainted should be positioned on his or her back. Make sure the legs are elevated, if possible above the heart level. Check the person's airway to be sure it's clear. Watch for vomiting. Check for signs of circulation (breathing, coughing or movement). If absent, begin CPR. Call 911. Continue CPR until help arrives or the person responds and begins to breathe. Help restore blood flow. If the person is breathing, restore blood flow to the brain by raising the person's legs above the level of the head. Loosen belts, collars or other constrictive clothing. The person should revive quickly. If the person doesn't regain consciousness within one minute, dial 911.

2.5 Heat Rash

Description: Heat rash, also known as prickly heat, may occur in hot and humid environments where sweat is not easily removed from the surface of the skin by evaporation. When extensive or complicated by infection, heat rash can be so uncomfortable that it inhibits sleep and impedes a worker's performance or even results in temporary or permanent disability.

Symptoms Include: Areas of the skin itch intensely and often feel prickly, or sting. Heat rash looks like tiny bumps surrounded by a zone of red skin. It usually occurs on clothed parts of the body, such as the back, abdomen, neck, upper chest, groin or armpits and goes away on its own within a few days. In severe forms, however, heat rash can interfere with the body's heat-regulating mechanism and cause fever, heat exhaustion, and even death.

Prevention/First Aid: The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Use a fan if necessary. Dusting powder may be used to increase comfort, but avoid using ointments or creams as they keep the skin warm and moist and may make the condition worse.

3.0 PRECAUTIONS TO PREVENT HEAT ILLNESSES

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 (acclimatization).

Drink plenty of liquids. Hydration is a continuous process. Don't wait until you're thirsty! By then, there's a good chance that you're 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.

Take frequent breaks, especially if you notice you're getting a headache or you start feeling overheated.

Assure that adequate water and shade are available at the job site before work is to begin.

Wear lightweight, light colored clothing when working out in the sun.

Immediately report all unsafe conditions and/or concerns to your supervisor or area manager without delay.