CITY OF PHILADELPHIA

Office of the Director of Finance

"Breathing Life Into Safety"

Risk Management Division: Safety and Loss Prevention Unit

http://www.phila.gov/risk

Health & Safety Bulletin July 9, 2021

Heat Stress General Employee Awareness

General Information

What's the concern?

We expect high heat and humidity in the summer months. These conditions significantly increase the potential for heat related illnesses, particularly for those working outdoors.

How might heat affect you?

Exposure to excessive heat can cause heat—related illnesses and can exacerbate many preexisting conditions, such as heart and respiratory disease. Heat exhaustion and heat stroke are the most serious heat illnesses.

Call 911 if there are emergency health concerns associated with heat exposure. Someone should stay with an employee heat casualty until emergency medical services arrive.

Heat Illness Prevention Tips:

Use a Buddy System: When working in the heat, co-workers should check on each others condition. Heat-induced illness can cause confusion or loss of consciousness.

Sunburn affects the body's ability to cool down and can make you dehydrated.

Broad spectrum (or UVA/ UVB) sunscreen with a sun protection factor (SPF) of 15 or higher can help to protect the skin.

Avoid heavy hot meals, which can add heat to your body.

Check local news for extreme heat alerts and click here for safety tips from the Centers for Disease Control (CDC).

1. What you should know?

HEAT EXHAUSTION:
The symptoms of heat exhaustion include:

- Muscle cramping, heavy sweating,
- Fatigue, Headache, Irritability, Thirst,
- Nausea or vomiting,
- Dizziness or fainting.

HEAT STROKE: If untreated, heat exhaustion may progress to heat stroke. **Heat stroke is a serious, life-threatening condition and is a medical emergency. Call 911.** Heat stroke is characterized by the following symptoms:

- A body temperature greater than 103°F,
- Red, hot, and dry skin (no sweating, although previous exposure to high heat conditions and heat exhaustion can result in skin wet with sweat),
- Rapid, strong pulse,
- Throbbing headache,
- Dizziness, Nausea,
- Confusion, slurred speech, seizures,
- Unconsciousness (heat stroke can be fatal).

2. What you should do? Implement Risk Reduction Methods:

PRECAUTIONARY / PREPAREDNESS ACTIONS: Drink plenty of fluids, stay out of direct sunlight and in air-conditioning, when feasible. Utilize air-conditioned vehicles and buildings for rest breaks. Increase drinking water consumption. **Thirst is not an adequate guide for water replacement.** In order to avoid heat illness, begin drinking water early in the day (or shift), before work, and continue through the end of the day (or shift). Consuming one to two 17 oz. bottles of water per hour will help to replenish body water lost to sweat. Avoid salt tablets. Periodic consumption of sports drinks, alternated with water consumption, can replace body electrolytes lost to sweat. If on a low salt (sodium) diet, consult your healthcare provider for advice.

It takes time for the body to acclimate to high heat conditions. During summer heat, try to slowly ramp up work intensity over a 1 – 2 week period. A heat-acclimatized employee that is away from a hot work environment for a week or more can take 2 – 3 days to re-acclimatize upon return to work. When possible, schedule strenuous activities in the early morning or evening. Wear lightweight, loose fitting clothing, and a brimmed head covering when possible. Avoid standing in the sun when communications can be transacted in shade. A brief message for heat illness prevention is to encourage **"Water – Rest – and Shade."** Know the signs and symptoms of heat exhaustion and heat stroke.

Very high body temperatures can damage the brain or other vital body organs. In severe cases, this can progress to multiple organ system failure and death. Using fans when indoor air temperatures exceed 95 °F (which is average skin temperature) can prevent cooling and actually increase body temperature. Lower fan speeds or increase distance from the fan, operating them just to the point of evaporating sweat. Please continue to "hydrate," even when using fans.

Anyone overcome by heat should be moved to a cool and shaded location. Remove heavy layers of outer protective clothing, equipment, socks, and shoes. Pouring (spraying) cool water on the head and clothing or wrapping a person with cold water soaked cloths or sheets during a heat emergency can help. Placing ice packets around the head, neck, arm pits, and groin area will further "cool down" a heat casualty.