

## FROM THE ISAO SAFETY COMMITTEE: HEAT STRESS

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When the human body heats up faster than it can cool itself, the core body temperature and heart rate rise, and a person will experience heat stress. The effects of heat exposure can range anywhere from discomfort to death. Understanding how heat can affect the body can help you to stay safe while working in hot conditions.

## **DESCRIBE** the hazards

Heat Cramps. During strenuous physical activity, workers will sweat. Heavy sweating will reduce both moisture levels and salt levels in the body. Low salt levels result in painful cramps. Be aware that heat cramps are also a symptom of Heat Exhaustion.

Heat Exhaustion. Occurs as a result of an excessive loss of water and salt. Its' symptoms include heavy sweating and a rapid pulse. Heat Exhaustion does not typically require emergency medical intervention (EMS) if a person can be cooled down within 30 minutes. If not addressed in a timely fashion Heat Exhaustion can develop into the most serious heat related illness, Heat Stroke.

Heat Stroke. Heat Stroke needs to be treated as a medical emergency. It occurs when the body is no longer capable of regulating temperature. The body's temperature rises quickly, a person's sweating mechanism shuts down and the body is no longer able cool itself. Once Heat Stroke occurs, body temperature can rise to 41°C within 10-15 minutes. If a person does not receive emergency medical intervention, Heat Stroke can cause permanent disability or death.

## **DISCUSS** control measures

 Avoid working alone. Stay in constant communication with your coworkers as they may identify your symptoms before you do.

- Drink water regularly. One cup as often as every 15mins. Ensure that water is available and accessible on the work site.
- Replace salts and minerals as you work by consuming drinks that contain, salt, electrolytes and *low* levels of sugar such as sports drinks.
- ◆ Avoid sugary and caffeinated drinks as they cause you to lose body fluids.
- ◆ Alcohol is a diuretic and leads to dehydration. Avoid consuming alcohol as much as 24hrs prior to working in the heat.
- Pace yourself. Start slowly, and pick up the pace gradually until you acclimatize to the conditions. If you experience difficulty breathing, or pounding heartbeat, communicate to coworkers, get into a shaded area and rest.
- Prevent sunburn by applying a broad spectrum sunscreen with an SPF of 15 or higher 30mins prior to going out into the sun. Reapply sunscreen according to product directions.

## **DEMONSTRATE** knowledge

- Review any company standard operating procedures (SOP) regarding working in extreme temperatures
- Show your crew members where they can obtain water or other hydrating liquids prior to starting their shift.

Additional information on this topic can be found by visiting:

https://www.ontario.ca/page/managing -heat-stress-work

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