

History of Heat Related Illness/Death

According to Bureau of Labor Statistics between 2011 and 2019, 344 workers across various industries died due to heat-related illnesses. During that timeframe there were 5,536 heat illness-related fatalities across the entire U.S. population with 197 of those from the state of Illinois. For the months of May through September for 2011 through 2019, the average daily high temperature at the Willard Airport monitoring station was 81 degrees Fahrenheit with an average heat index of 83-90 degrees Fahrenheit.

Why is This Important?

As a Midwesterner ask yourself, “does this seem all that hot?” Many will say no. Thinking like this cost 197 Illinoisans their lives. There are factors that do play an important role in heat related illnesses. Some of these factors are age, physical fitness, acclimatization, hydration, and work intensity. That being said, we still read about athletes suffering from heat related illnesses (former NFL star Marion Barber III being the most recent, see more at <https://www.usatoday.com/story/sports/nfl/2022/07/12/marion-barbers-death-what-we-know-dangers-heatstroke/10036028002/>). If even world class athletes are susceptible to heat illness, what can the average person do to prevent heat related issues?

Hydrate, Hydrate, Hydrate

Cool water should be available/accessible for you to drink regardless of work location. Proper hydration is essential to prevent heat-related illness. For those working two hours or more, access to additional fluids that contain electrolytes should be available as well.

For short jobs, cool potable water is sufficient. Individuals should be encouraged to drink at least one cup (8 ounces) of water every 20 minutes while working in the heat. If you wait until you are thirsty, you have waited too long.

For longer jobs that last more than two hours, electrolyte-containing beverages such as sports drinks or mixes should be available on-site. Workers lose salt and other electrolytes when they sweat. Substantial loss of electrolytes can cause muscle cramps and other dangerous health problems. Water cannot replace electrolytes; other types of beverages are needed. The Toolroom stocks items such as Sqwincher® zero or other similar beverage mixes that contain electrolytes and often zero sugar. Electrolyte replacement beverages should be used in addition/conjunction with water

Crews should be aware that use of certain personal protective equipment (e.g., certain types of respirators and impermeable clothing) can increase the risk of heat-related illness.

Do not rely on feeling thirsty to prompt you to drink. Remember to drink on a regular basis to maintain hydration throughout your shift.

Rest

When heat stress is high, additional breaks may be needed. The length and frequency of rest breaks should increase as heat stress rises.

Breaks should last long enough for individuals to recover from the heat. How long is long enough? That depends on several factors including environmental heat, the worker's physical activity level, as well as the individual worker's personal risk factors. The location of the breaks also matters. If individuals are able to rest in a cooler location, they will be ready to resume work more quickly. Breaks should last longer if there is no cool location for individuals to rest.

Some may be tempted to skip breaks. **In hot conditions, skipping breaks is not safe!** Make sure that everyone is resting during all recommended break periods.

Shade

A cool location where individuals or crews can take their breaks and recover from the heat should be determined prior to the start of work.

When working outdoors, this might mean a shady area, an air-conditioned vehicle, a nearby building or tent, or an area with fans and misting devices.

Indoors, workers should be allowed to rest in a cool or air-conditioned area away from heat sources such as ovens and furnaces.

Workers should be monitored during work and rest cycles for signs and symptoms of heat-related illness.

Everyday Preparation

Non-work activities can also have a positive or negative impact on heat-related illnesses. Please remember to hydrate and take the necessary breaks at home as well. If you do end up having issues with the heat or suffer a heat-related illness it is also recommended to talk to your physician about ways to prevent these in the future. Remember once you experience a heat-related illness it is more likely that you will experience one again. Prevention is key.