Employee Safety

Common Causes of Dehydration—Fact vs. Fallacy

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What You Need to Know

Having drinking water available does not mean associates are hydrated.
As temperatures spike, workers will sweat more, leading to dehydration.
Managers need to be aware of workers' medical conditions to avoid heat illness.
Managers may need to make environmental adjustments, as well as provide special protective gear.

To protect associates from heat-induced illnesses, here are several common misconceptions about plant and factory workers' hydration needs.

When the heat spikes, companies need to be prepared to keep their employees hydrated and healthy. For starters, it's important to separate fact from fiction about the effect of heat on associates and what's needed to avoid dehydration.

Dehydration Fallacy No. 1: As long as drinking water is available, associates will remain safely hydrated.

Fact: "A study done by the state of California found that 78 percent of associates suffering from heat illness were dehydrated—despite having drinking water available," says Alsie Nelson, product manager for Ergodyne, a manufacturer of protective clothing and gear.

"If you're on a job site, especially if you're at heights or working in agriculture, taking a break every 15 minutes to walk over to a communal station for a drink of water is not productive," Nelson notes. "If it's not convenient, the associate is probably going to skip it, and ultimately it could affect their health."

In cases like these, she recommends using a hydration backpack to make it easier for associates to maintain safe hydration levels.

Dehydration Fallacy No. 2: As long as associated stay hydrated, they will remain safe from **a heat-induced illness.**

Fact: According to the U.S. Occupational Safety and Health Administration, associates are at "very ***high to extreme risk***" for heat illness at temperatures with a heat index greater than 115 degrees Fahrenheit. The heat index combines temperature and humidity into a single number.

OSHA advises that a good rule of thumb is to have an associate drink about four cups of water every hour during the hottest periods.

But even with that amount of water intake, in extreme heat, an associate will sweat profusely, leading to dehydration. As a result, keeping associates properly hydrated also requires that managers reduce workloads, provide shade or an air-conditioned space, and enforce healthy work and rest schedules.

Dehydration Fallacy No. 3: Only outdoors associates need to worry about dehydration.

Fact: Employees working indoors in factories that use heat for processing or manufacturing, such as molding ovens, could also be at risk for a heat illness if they are not properly hydrated, says Lydia Baugh, communications director for the International Safety Equipment Association.

"This is especially true for associates who have certain medical conditions, who are taking certain medications or who are already dehydrated from an illness," Baugh says.

In addition, many types of associates need to wear nonbreathable personal protective equipment (PPE) on the job. Some tasks also require use of a hood and respirator, which increases heat stress. In these situations, it is critical for managers to understand the causes of heat-related illness and to put in place a plan for protecting their associates' health through proper PPE, appropriate training and scheduled breaks.

> **"There needs to be adequate time to acclimatize associates to hot environments."**
> Glenn Taylor
> Assistant Regional Administrator, OSHA Region 7

Dehydration Fallacy No. 4: Once associates get used to working in the heat, they won't have to worry about heat illnesses.

Fact: "There needs to be adequate time to acclimatize an associate to hot environments," says Glenn Taylor, assistant regional administrator for compliance assistance programs in OSHA Region 7. "If they're going to be suddenly put into a hot situation with hard heavy work—for example, if they are new on the job—they're going to have to take many more rest breaks at first."

Even when associates are fully acclimatized to high temperatures, Taylor says, it doesn't eliminate the need for fluids or rest breaks. "It's just that they will be better able to handle the heat stress," he says.

But even when someone has adjusted to working in the heat, they must further adjust if a serious heat wave hits the area. At the same time, heat-adjusted associates may leave for vacation and come back a week later to find they have lost some of their ability to withstand the heat, Taylor says.

Keep Your Heat Smarts High

Every year, OSHA sponsors a ***prevention campaign*** to remind employers to work with their employees

to prevent heat-related illnesses and deaths.

The organization has developed a smartphone ***heat safety app*** to help associates and employers monitor dangerous heat index levels. The app also suggests how associates can take to protect themselves from risk at each level.

Key Takeaways

3 Ways to Help Associates Avoid Heat Illnesses:

- During extreme heat periods, ensure workers drink four cups of water each hour.
- To make sure associates on outdoor locations hydrate often, consider providing water backpacks.
- If associates are exposed to heat in indoor environments, provide adequate water and consider the need for PPE.