



Employee Safety

Hydration Safety Tips: What You Can Do to Protect Your Teams

Vanessa Jo Roberts | May 14, 2020

Dehydration is no minor problem in industrial and manufacturing environments—it frequently puts workers at risk of injury. We talk with two safety experts from Sqwincher about best practices for establishing a hydration program in your shop.

The striking thing about dehydration is it starts to happen before there are any glaringly obvious symptoms. What's more, workers often don't think they are becoming dehydrated if they aren't hot or sweating profusely. And they typically aren't thirsty.

READ MORE: [Learn about Dehydration Symptoms here.](#)

The personal protective equipment required in industrial and manufacturing settings often drives up body temperatures and induces sweating, as do some of the hot working environments.

“This is part of a health and wellness initiative—eating properly, exercise and hydration.”

Bubba Wolford

Director of Business Development, Sqwincher

“You've got the addition of arc flash suits; you've got the greenies in the steel mills; you've got vests, helmets, gloves—just go down the list of all the external PPE,” says John Gingrass, director of national accounts at electrolyte drink manufacturer **Sqwincher**. “It all adds to the dehydration that can happen.”

Dehydration is not solely an issue in the summer. It's a year-round concern that's just as likely to be brought on by cold stress as by extreme heat.

Five Common Symptoms of Dehydration

It's typical for safety teams to have workers use a buddy system to monitor for signs of dehydration.

Here are the most likely initial symptoms that workers will need to watch for:

- Lightheadedness
- Dizziness
- Headache
- Nausea
- Fatigue

"If someone is not acting normally and exhibits signs of dehydration, you need to remove them from their work area and take them to be assessed immediately," advises Sqwincher's Bubba Wolford.

A Quick Way to Drive Hydration Awareness

The easiest and most accurate way to measure the dehydration of your workforce is to take everyone's body weight when they come in and then again when they leave.

If any employees weigh less than when they arrived, they're experiencing dehydration, Wolford says. "That's fluid loss. They are not losing fat or muscle in a matter of eight hours."

Wolford says he has worked with companies that run weight checks at certain times of the year when they are particularly concerned about hydration.

"It raises awareness. It's really an excellent way to do it, and it's not overly difficult," he says. "You're not taking blood or urine samples."

What Makes Sqwincher Unique?

The biggest difference between Sqwincher and other standard sports drink makers is that it sells 90 percent of its products through safety distribution to the industrial workforce.

The average age of today's industrial worker is 40 years old, says Sqwincher's John Gingrass. That brings unique challenges compared to an 18- to 26-year-old athlete. Add in medical preconditions, such as diabetes and hypertension, and you have added cause for a good prevention program.

"Our three formulations—regular, low-calorie and sugar-free—fit all the needs of the workers and the different environments that they work in," Gingrass says.

Sqwincher's top-selling formula is *the Zero*, which only contains sucralose as its sweetener. While many electrolyte manufacturers also use sucralose, most use aspartame or Ace-K (acesulfame potassium) blended with sucralose. Sqwincher does not use Ace-K or aspartame in any of its current formulas.

The Impact Impaired Hydration Can Cause on Your Workforce

Scientific research shows that even mild dehydration (the kind that's asymptomatic) profoundly affects productivity. "A 2 percent level of dehydration equates up to a 20 percent decrease in productivity," says Bubba Wolford, director of business development at Sqwincher. "It does not take much to impair you."

It can reduce a worker's reaction time, too, which can make the chance of an accident more likely—dangerous when working in a manufacturing environment or when doing any job that involves heavy machinery.

When you sweat, you lose minerals—the electrolytes that are found in your muscle cells: sodium, potassium, calcium and magnesium.

"The electrolytes are housed in the muscle cells, and they keep the cells balanced to fire properly," explains Wolford, who has a master's degree in exercise physiology. The electrolytes ensure the proper muscle response so that people can operate at peak performance.

Discover how each of the four electrolytes affect the body in this quick electrolyte primer.

"The biggest issue that humans have is in replacing the potassium because its loss is directly associated with cramping," he says. "Cramping in an industrial setting can be catastrophic."

For instance, Wolford offers this scenario: Someone is driving a forklift and suffers a severe leg cramp as a result of dehydration; they might run off a 20-foot dock.

"We're talking about the potential for severe injuries and even death before someone even gets to that heat stroke stage," he adds.

That's because even mild dehydration can impair someone's mental faculties.

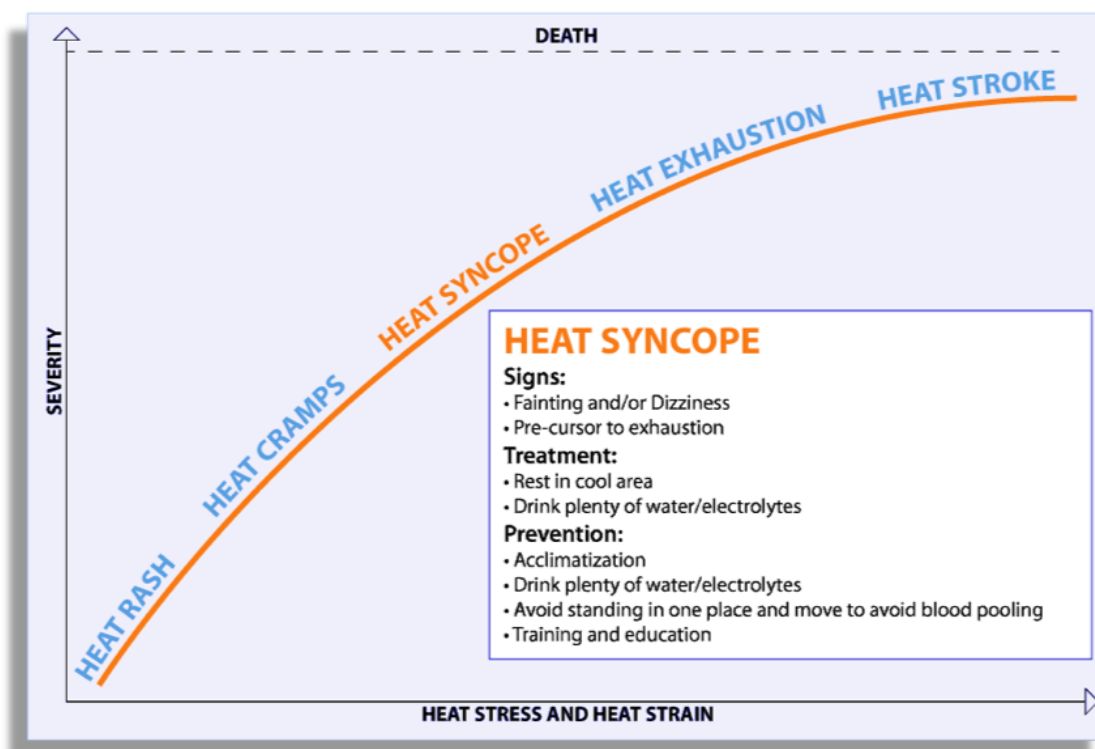
"Safety stops and starts with being properly hydrated," Wolford says.

Workers can have all the PPE and protective equipment in the world, he adds, but if they're not thinking clearly or are suffering from the onset symptoms of dehydration, they're putting themselves and the people around them at risk.

It's similar to someone having a DUI level of alcohol in their bloodstream, Gingrass adds. "You could have slowed reaction times, or it's quite possible you'll make poor decisions."

Gingrass suspects that the dehydration factor in safety incidents tends to be underreported. After an incident occurs, people might mention a headache to the safety team, or that they didn't feel well that day, but they often won't tie the incident back to underlying dehydration throughout that day.

"Take a slip, trip and fall recordable, for example," Wolford says. "Did they investigate to the point to uncover that the employee was dehydrated and that is why they actually fell? If they weren't dehydrated and lacking in mental faculties, then they probably would have safely stepped over whatever the hazard was."



Source: Sqwincher

Separate hydration myth from reality in our article "Common Causes of Dehydration—Fact vs. Fallacy."

Best Practices for Hydration in the Workplace

While there is no hydration standard from the Occupational Safety and Health Administration, the agency does provide **guidance on hydration**. "If you have a recordable and OSHA comes in to do an investigation, they will go straight to the **General Duty Clause** and all of a sudden those recommendations have teeth," Wolford says.

To ensure employees stay hydrated and safe, Sqwincher helps companies design hydration programs

and establish best practices, and it provides on-site training.

It starts with an assessment to determine vulnerabilities and review practices within the particular facility, Gingrass says. The assessment identifies hot or cold areas, the water sources, the proximity of hydration stations to workers, and whether there are any reasons why water and electrolyte drinks can't be on the plant floor.

Sqwincher formulas are low in sodium and a good source of potassium. Plus, there are sugar-free and low-calorie versions. As part of the assessment, teams will fit-test the products to a company's workforce to tailor them to the specific health needs of the workers.

"With the industrial workforce generally, 33 percent are hypertensive, more than 11 percent are diabetic, and those numbers go up as the workforce gets older," Wolford says. It's not one size fits all.

The assessment guides the steps in setting up a hydration program. Here are a few key recommendations:

- **Keep water and electrolyte products readily available.**

It's not OK to replace water with electrolyte drinks, Wolford says. "Physiologically speaking, that's incorrect: You need water, and you need electrolytes."

The Mayo Clinic recommends 15 8-ounce cups a day of fluids for men and 11 for women. The OSHA guidance suggests a cup of water every 20 minutes when working or exposed to hot or extreme environments.

"We recommend that at a minimum, workers consume one for one, or optimally two cups of water for one cup of Sqwincher," Wolford says.

- **Set up hydration stations in strategic locations.**

"One of the big mistakes we see is that a facility will have their hydration on the floor 50 feet from one production line, but 150 feet from a second line," Wolford says. "You want to make the stations equally accessible for all workers."

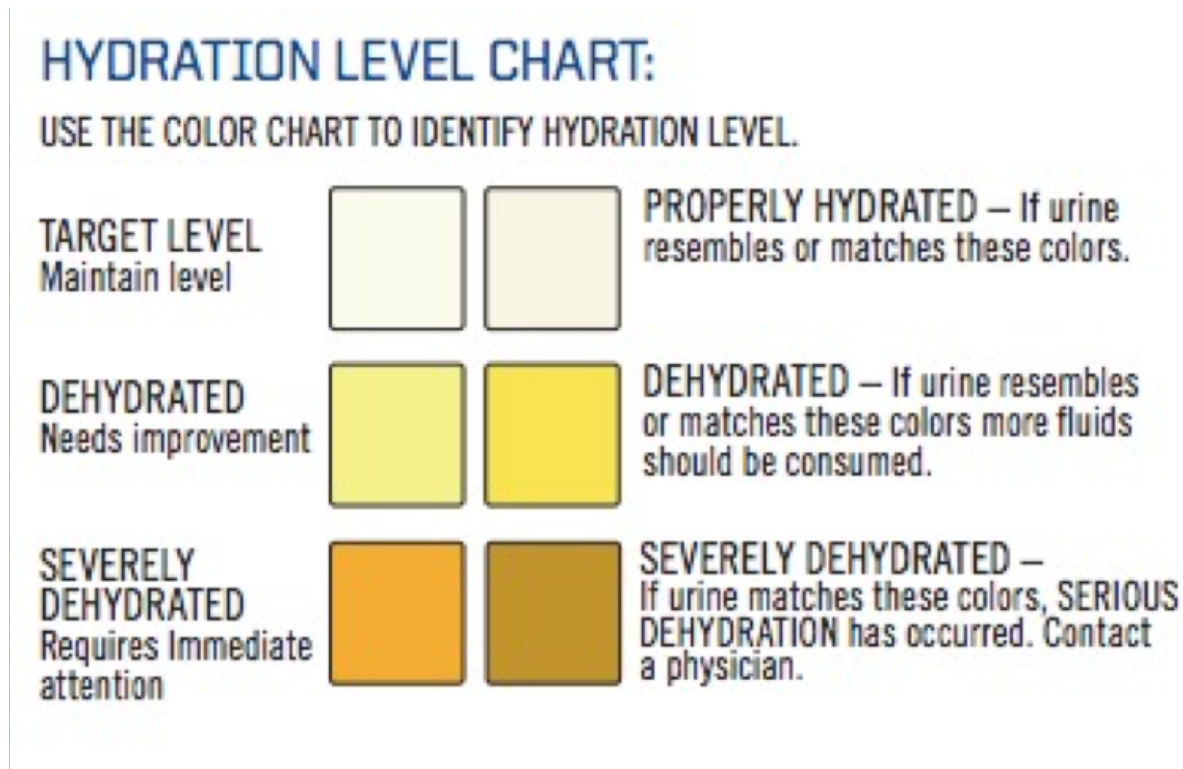
Wolford also says follow the water. No matter what type of water dispenser or hydration setup your plant has, electrolyte options are available—in bulk-serve *liquid* and *powder* concentrates—if you have water coolers or filtered water hydration stations on the facility floor.

If water supplies are not readily available near your workers, then there are ready-to-drink *bottles* and *pouches*. There are also *Sqweeze* freezer pops that can be stocked to help workers cool their core temperature quickly.

- **Explain and promote self-monitoring.**

The easiest way for workers to monitor their own hydration levels is through the color of their urine. "We teach that as the first line of defense because it's the simplest way to understand if you're properly

hydrating yourself,” Gingrass says.



Source: Sqwincher

- **Use hydration signage to encourage self-care.**

Posting urine charts in employee restrooms or locker areas is a start. Other signage can detail recommended drink consumption as well as remind workers how often to take hydration breaks.

- **Make good hydration part of your safety culture through training.**

“This is part of a health and wellness initiative—eating properly, exercise and hydration,” Wolford says. Training needs to be ongoing, not something that takes place just once a year, he advises.

*Check out these **HYDRATION & HEAT STRESS Products & Solutions**.*

Benefits of Hydration: Healthier Workers Mean a Healthier Bottom Line

Health and wellness have become major initiatives in most plants because businesses want to lower their workers’ compensation claims, prevent recordable incidents and keep productivity high.

“These jobs are tough, and they’re hard on the body,” Wolford says. The goal of a hydration program should be to improve the lives of workers and help the company eliminate recordable dehydration-related incidents, he says.

Wolford sums it up this way: "If workers leave a plant healthier and more hydrated than when they walked in so that they can go be a dad, go be a coach or go be a wife—and they're not suffering the onset symptoms of dehydration—that's what gets my tractor running because we're making a difference."

*Do you think dehydration plays a greater role in injuries and recordable incidents than workers realize?
How does your company keep its workers hydrated?*

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