



HEAT STRESS 101

Hydration plays an important role in worker safety and productivity. Companies, safety directors and employees all want to work safely, perform productively and return to work the next day. And everyone wants to avoid accidents and injury at all costs.

A properly hydrated employee is a prepared, fully functioning employee. Sqwincher is the solution for professional grade hydration.

AWARENESS

Heat stress, heat illness, fatigue and exhaustion are realities that take a toll on the body and the workplace. And it's important to know that they're caused by not being properly hydrated. Dehydration results in poor judgment, mental errors, slower reflexes, taking shortcuts and, in some instances, injury or death.

To be safe and effective on the job, make hydration a number one priority.

PREPARATION

PREPARATION IS KEY TO EQUIP THE BODY FOR A LONG DAY ON THE JOB. BEFORE STARTING A SHIFT, BE SURE TO ASK YOURSELF THESE IMPORTANT QUESTIONS:

1. What kind of shift did you have the day before?
2. How many diuretics or dehydrants (sodas, coffees, alcoholic beverages) did you have before today's shift?
3. How much water intake over the last 12 hours?
4. What was your urine color before you started work?
5. How much rest did you get the evening before?

These questions will give you an estimated assessment of your starting hydration level.

CONDITIONING

You're the only one who knows your body and what condition it's in. And being properly hydrated is a big part of being properly conditioned for the job.

BE SURE TO TAKE THESE CONSIDERATIONS INTO ACCOUNT AS POTENTIAL HYDRATION OBSTACLES:

1. Your medical history and how it relates to your work environment
2. Your age and weight
3. Your experience level to the activity, workload and surroundings
4. Your ability to adapt well and acclimate to your surroundings

After assessing your condition, make sure you adjust your hydration level to deal with any potential obstacles head on.

HEAT STRESS

Heat makes you lose more fluids regardless of work conditions. The loss of fluids increases when you factor in PPE, the kind of safety uniforms or clothing worn and how hard the job is on the body. Because of these factors, there is great potential for dehydration, heat stress and heat illness. To ensure safety, all work environments should have a temperature benchmark for heat that exceeds standard precautions and considers all variables like PPE and heat released from machinery and equipment.

HEAT INDEX

APPARENT DANGERS POSED BY HEAT STRESS

90°-100° F	101°-129° F	130° F +
Possible sunstroke, heat cramps and heat exhaustion with prolonged exposure and physical activity.	Probable sunstroke, heat cramps and heat exhaustion and possible heat stroke with prolonged exposure and physical activity.	Imminent heat stroke or sunstroke.

HEAT ILLNESSES

Heat cramps, heat exhaustion and heat stroke are three common heat illnesses caused by dehydration. It's important to know what they are and how to respond to them.

HEAT CRAMPS

- Diagnosis** Fatigue, confusion, painful muscle spasms in the arms, legs or abdominal areas.
- Response** Stop exertion, move to a cooler place and drink plenty of fluids with electrolytes. Apply firm pressure on cramping muscles, then gently massage to relieve muscle spasm.

HEAT EXHAUSTION

- Diagnosis** Fatigue, confusion, clammy skin, nausea, low blood pressure, rapid pulse, fainting.
- Response** Stop exertion, move to a cooler place and drink plenty of fluids with electrolytes.

HEAT STROKE

- Diagnosis** Fatigue, confusion, collapse, unconsciousness.
- Response** Seek medical attention immediately and cool the body down as quickly as possible. Move victim to cooler area and reduce body temperature with cold bath or sponging. Use fans and air conditioners. Temperature of 104°F or higher can be fatal. **DO NOT GIVE FLUIDS!**

FACT OR MYTH

FACT: DEHYDRATION IS MORE PREVALENT IN THE SUMMER MONTHS.

This is true, and more fluid intake is needed during these months due to elevated temperatures. Intensive heat environments during this time period are even more dangerous and leave workers highly susceptible to heat stress. PPE and other clothing requirements will make the heated environment even more intense.

MYTH: HYDRATION IS ONLY A SEASONAL PRECAUTION NEEDED IN SUMMER MONTHS.

This is false. Your body is always working, even in the coldest months. Whatever season it is, you're still losing fluids and you must rehydrate to keep a good fluid balance.

In cooler months, people fail to realize they may actually be burning more energy involuntarily (shivering) to keep them warm. When you take into account heavy clothing, it actually acts as an incubator and induces more sweating.

Consider the amount of fluid lost on a daily basis from the lungs, skin, respiratory tract, urine, as well as water excreted in the feces. The exact amount cannot be measured, but it is estimated to be between 500 - 700ml in an adult under normal circumstances.

HERE IS A COMPARISON EXAMPLE: Does your vehicle use and lose fluids while it is running idle at a stop sign or parking lot? **YES.** Well, so does your body every time you breathe, each time your heart beats and whenever you urinate.



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