



SHIFT BRIEFING



DEHYDRATION BEST PRACTICES

Did You Know?

A Yale study found that participants who were just 1% dehydrated had a 12% increase in errors when performing tasks that required cognitive flexibility.

What tasks do firefighters and EMTs perform that require cognitive flexibility?

Mild dehydration results in significant negative physical outcomes: headache, exhaustion, rapid pulse, irritability. Mild dehydration occurs when a person is just 1.5 percent dehydrated – a condition that does not even trigger the thirst response in most people. In addition, dehydration is known to worsen mood and attitude, contribute to confusion and poor decision making, and negatively affect memory and judgment.

Many people will become 1.5 percent dehydrated after just an hour of moderate hiking with no fluid intake. Just imagine how quickly a firefighter working on an initial attack would reach the level of measurable dehydration. Breathing off an SCBA also leads to more rapid loss of fluids since the compressed air is so dry.

Fighting Dehydration

Many fire and EMS agencies stock water and sport drinks in command and response vehicles. However, leaders are recognizing that simply make fluids available is not enough. Agencies may take a more proactive and aggressive approach to ensuring their personnel are at the ‘top of their game’ when stakes are the highest. Here are some points for discussion:

1. Come to work hydrated. Planning to catch-up on a fluid deficient is a plan for failure. Start the night before your shift. Drink at least one big glass of water before bed. Drink water or fruit juice with your morning meal. Coffee can be somewhat hydrating, but the diuretic effect can minimize or eliminate any potential benefit.
2. Volunteers and on-call responders should recognize that they need to stay in a constant state of good hydration.
3. Drink water during your shift. Keep a bottle with you. Avoid over-consumption of coffee, soda, and sugary fruit drinks. Monitor your water intake and urine output.
4. Every ambulance and fire apparatus should carry cool water.
5. Rehab officers should hand firefighters a bottle of water when they first enter the area and not let them leave until they have finished it.
6. Don't neglect training. It's not only physically demanding outdoor drills that can lead to dehydration. Indoor or outdoor drills, of even moderate physical activity, in any weather conditions can result in dehydration. Training officers should plan for rest and water breaks as a part of every drill. Frequency and duration will be determined by the conditions and exertion level of the drill.
7. Safety Officers should include watching for signs of dehydration during incidents.
8. Everyone must watch for signs of dehydration in your brother and sister firefighters/EMTs.

ASK: What are the signs of dehydration?

Signs include thirst, dry mouth, headache, muscle cramps, sunken eyes, rapid breathing, dizziness, reduced coordination, fatigue, confusion, and reduced or dark urine output.