



SEMPER SAFE

Dog Days of Summer - Heat Stress

Employees who are exposed to extreme heat or work in hot environments may be at risk of heat stress.

Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. Burns may also occur as a result of accidental contact with hot surfaces or steam.

Employees at risk of heat stress include outdoor employees that work in hot environments such as firefighters, bakery workers, farmers, construction workers, miners, boiler room workers, factory workers, and others. Workers at greater risk of heat stress include those who are 65 years of age or older, are overweight, have heart disease or high blood pressure, or take medications that may be affected by extreme heat.

Prevention of heat stress for employees is important. Employers should provide training to workers so they understand what heat stress is, how it affects their health and safety, and how it can be prevented. Familiarize yourself with the symptoms and prevention methods in order to protect yourself from heat cramps, heat exhaustion, and heat stroke.

Heat Cramps are usually the result of hard physical labor in a hot environment, often resulting from an imbalance of electrolytes in the body.

Heat Exhaustion is a result of the combination of excessive heat and dehydration. Untreated, heat exhaustion can lead to heat stroke.

Heat Stroke is the most serious disorder associated with heat stress. It occurs when the body's temperature regulation fails, and body temperature rises to critical levels. It is a medical emergency that can lead to death.

PREVENTING HEAT STRESS

- Know signs/symptoms of heat-related illnesses; monitor yourself and others around you.
- Block out direct sun and other heat sources.
- Drink plenty of water, drink often and BEFORE you are thirsty.
- When you are able, wear light-colored, loose-fitting clothing.
- Avoid beverages containing alcohol or caffeine.



PREVENTING HEAT INJURIES



SEMPER SAFE

Dog Days of Summer - Heat Stress

FLUID REPLACEMENT GUIDELINES FOR WARM WEATHER TRAINING

Flag Condition	WBGTI °F	Easy Work		Moderate Work		Strenuous Work	
		Work/ *Rest	Water per Hr.	Work/ *Rest	Water per Hr.	Work/ *Rest	Water per Hr.
Green	80 - 84.9	No Limit	¼ Qt.	50/10	¼ Qt.	40/20	1 Qt.
Yellow	85 - 87.9	No Limit	¼ Qt.	40/20	¼ Qt.	30/30	1 Qt.
Red	88 - 89.9	No Limit	¼ Qt.	30/30	¼ Qt.	20/40	1 Qt.
Black	90 & >	50/10	1 Qt.	20/40	1 Qt.	10/50	1 Qt.

* Rest means minimal physical activity (sitting or standing) and should be accomplished in the shade if possible.

Note 1: For MOPP gear, PPE, or body armor, ADD 10°F to the WBGT Index.

Note 2: Work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specified heat category. Individual water needs will vary ±¼ quart per hour.

TABLE 5-1. Fluid Replacement Guidelines For Warm Weather Training.

Easy Work	Moderate Work	Strenuous Work
-Weapon maintenance -Walking hard surface at 2.5 mph, < 30 lb. load -Manual of Arms -Marksmanship training -Drill and ceremony	-Walking loose sand at 2.5 mph, no load -Walking hard surface at 3.5 mph, < 40 pound load -Calisthenics -Patrolling -Individual movement technique; e.g., low crawl, high crawl -Defensive position construction -Field assaults	-Walking hard surface at 3.5 mph, ≥ 40 lb. load -Walking loose sand at 2.5 mph with load -Running and participating in physical conditioning training

FOR UP-TO-DATE TEMPERATURES AND HEAT INDEX INFORMATION YOU CAN UTILIZE THE "AUTOMATED HEAT STRESS SYSTEM" HERE:

AHSS.LEJEUNE.USMC.MIL/HOME/DISCLAIMER

As Marines, Sailors, and Civil Servants we live by our core values. So, think before you jeopardize the safety of yourself, your fellow Marines, Sailors, civilian employees or family members and remember SEMPER SAFE!