

SAFETY BULLETIN

Extreme Heat Safety SB 01-16 June 2016

Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. Here are suggestions to aid you in safely performing tasks during period of extreme heat:

BEFORE – KNOW THE TERMS

a. Heat Cramps - Muscular pains and spasms due to heavy exertion. Although heat cramps are the least severe, they are often the first signal that the body is having trouble with the heat.

b. Heat Exhaustion - Typically occurs when people exercise heavily or work in a hot, humid place where body fluids are lost through heavy sweating. Blood flow to the skin increases, causing blood flow to decrease to the vital organs. This results in a form of mild shock. If not treated, the victim's condition will worsen. Body temperature will keep rising and the victim may suffer heat stroke.

c. Heat Stroke - A life-threatening condition. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly.

d. Excessive Heat Watch - Conditions are favorable for an excessive heat event to meet or exceed local Excessive Heat Warning criteria in the next 24 to 72 hours.

e. Excessive Heat Warning - Heat Index values are forecast to meet or exceed locally defined warning criteria for at least 2 days (daytime highs=105-110° Fahrenheit).

f. Heat Advisory - Heat Index values are forecast to meet locally defined advisory criteria for 1 to 2 days (daytime highs=100-105° Fahrenheit).

WORK/REST/WATER CONSUMPTION GUIDE (IAW GTA 05-08-012)

HEAT CATEGORY	WBGT INDEX, (F°)	EASY WORK		MODERATE WORK		HARD WORK	
		WORK/ REST	WATER INTAKE (Q t/h)	WORK/ REST	WATER INTAKE (Q t/h)	WORK/ REST	WATER INTAKE (Q t/h)
1	78 - 81.9	NL	½	NL	¾	40/20 MIN	¾
2 (GREEN)	82 - 84.9	NL	½	50/10 MIN	¾	30/30 MIN	1
3 (YELLOW)	85 - 87.9	NL	¾	40/20 MIN	¾	30/30 MIN	1
4 (RED)	88 - 89.9	NL	¾	30/30 MIN	¾	20/40 MIN	1
5 (BLACK)	>90	50/10 MIN	1	20/30 MIN	1	10/50 MIN	1

The work-rest times and fluid replacement volumes will sustain performance and hydration for at least 4 h of work in the specified heat category. Fluid needs can vary based on individual differences ($\pm \frac{1}{4}$ qt/h) and exposure to full sun or full shade ($\pm \frac{1}{4}$ qt/h).

CAUTION: Hourly fluid intake should not exceed 1½ quart.

NL= no limit to work time per hour.

Daily fluid intake should not exceed 12 quarts.

Rest means minimal physical activity (sitting or standing), accomplished in shade if possible.

DUTY FIRST – SAFETY ALWAYS

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