



# Fluid Replacement & Work-Rest Guidelines to Prevent Heat Illness

These tables are extracted from the current doctrinal manual TB MED 507 as medically-recommended guidance for limited/controlled activities (such as training, Table 1), and operational conditions that may exceed 4 hours such as during deployments (Table 2). The doctrinal guidance in Table 2 is intentionally limited (such as regarding the amount of rest time between work durations). Leaders need to weigh the risk reduction offered by longer rests and breaks from heat exposure, strenuous activity, and Mission Oriented Protective Posture (MOPP)/ combat clothing with other operational mission requirements and risks.

**Table 1. Fluid Replacement and Work-Rest Guidelines for Training up to 4 Continuous Hours**

If activities will be greater than 4 hours use Table 2 – along with adequate rest.

Heat Cat	WBGT Index, °F	Easy Work		Moderate Work		Heavy Work		Very Heavy Work	
		Work (min)	Water Intake qt/hr	Work/Rest (min)	Water Intake qt/hr	Work/Rest (min)	Water Intake qt/hr	Work/Rest (min)	Water Intake qt/hr
1	78° - 81.9°	NL	½	NL	¾	40/20	¾	20/40	1
2	82° - 84.9°	NL	½	NL	¾	30/30	1	15/45	1
3	85° - 87.9°	NL	¾	NL	¾	30/30	1	10/50	1
4	88° - 89.9°	NL	¾	50/10	¾	20/40	1	10/50	1
5	> 90°	NL	1	20/40	1	15/45	1	10/50	1

**Table 2. Recommendations for Continuous Work Duration and Fluid Replacement**

Specific rest cycle durations are not prescribed for continuous operations; however, leaders should ensure rest breaks for Heat Category 3 and above.

Heat Cat	WBGT Index, °F	Easy Work		Moderate Work		Heavy Work		Very Heavy Work	
		Work (min)	Water Intake qt/hr	Work (min)	Water Intake qt/hr	Work (min)	Water Intake qt/hr	Work (min)	Water Intake qt/hr
1	78° - 81.9°	NL	½	NL	¾	100	¾	45	¾
2	82° - 84.9°	NL	½	NL	1	70	1	40	1
3	85° - 87.9°	NL	¾	NL	1	60	1	25	1
4	88° - 89.9°	NL	¾	180	1 ¼	50	1 ¼	20	1 ¼
5	> 90°	NL	1	70	1 ½	45	1 ½	20	1 ½

Cat: Category | min: minutes | qt/hr: quart per hour | NL: no limit | WBGT: wet bulb globe temperature

Easy Work = weapons maintenance, marksmanship training, drill and ceremony

Moderate Work = patrolling with a 30-pound load, low and high crawl, digging a defensive position

Heavy Work = patrolling with a 45-pound load, 4-person litter carry (180 pounds), jogging 4 mph

Very Heavy Work = 2-person litter carry (150 pounds), move under direct fire, obstacle course

