

Camp Darby Heat Injury Prevention

Risk Management:

1. Determine Heat Category using WBGT reading
2. Enforce water intake & work/rest cycles
3. Modify clothing and/or environment to reduce risk
4. Plan work schedules involving high performance activity
5. Allow time for conditioning, fluid replenishment & rest/recovery

Work/Rest/Water Consumption Table

Based upon average sized, heat acclimated soldier wearing BDU, hot weather, and to light dress un-acclimated civilian

Easy (Light) Work examples		Moderate Work examples		Hard (Heavy) Work examples	
Soldier Tasks: Weapon maintenance Walking hard surface 2.5 mph <30 lb load Civilian tasks: Light hand or arm work Sitting or standing controlling machinery		Soldier tasks: Calisthenics or patrolling Walking hard surface 3.5 mph <40 lb load/ sand 2.5 mph no load Civilian tasks: Walking with moderate lifting and pushing		Soldier tasks: Field assault Walking hard surface 3.5 mph >40 lb load/ sand 2.5 mph with load Civilian tasks: Heavy shoveling or digging	

Heat Category	WBGT Index	Easy (Light) Work		Moderate Work		Hard Work	
		Work/Rest cycle	Water intake (qt/hr)	Work/Rest cycle	Water intake (qt/hr)	Work/Rest cycle	Water intake (qt/hr)
1	78 - 81.9 °F (25.5 – 27.7 °C)	No Limit	1/2	No limit	3/4	40 / 20 min	3/4
2 GREEN	82 - 84.9 °F (27.8 – 29.4 °C)	No Limit	3/4	50 / 10 min	3/4	30 / 30 min	1
3 YELLOW	85 - 87.9 °F (29.5 – 31 °C)	No Limit	3/4	40 / 20 min	3/4	30 / 30 min	1
4 RED	88 - 89.9 °F (31.1 – 32.1 °C)	No Limit	3/4	30 / 30 min	3/4	20 / 40 min	1
5 BLACK	> 90 °F (> 32.2 °C)	50 / 10 min	1	20 / 40 min	1	10 / 50 min	1

- ✓ Work/Rest times & fluid intake will sustain performance and hydration for at least 4 hours of work under the specific heat category
- ✓ Individual fluid needs can vary (+/- 1/4 qt/hr) and with sun/shade exposure (+/- 1/4 qt/hr) but should not exceed 1.5 qt/hr or 12 qt/day
- ✓ REST means minimal physical activity (sitting or standing), accomplished in the shade if possible
- ✓ Body armor or heavy woven protective clothing adds 5 deg F to WBGT reading in humid climates
- ✓ NBC MOPP 4 adds 10 deg F to WBGT reading

Precautions:

- Full acclimatization can take up to 2 weeks
- Gradually increasing work in heat allows for adaptation
- Personnel recovering from injury or illness, or in poor condition are at higher risk
- Dehydration can worsen over several days of heat exposure
- Acclimatization increases water requirements. Ensure fluid intake is increased
- Adequate hydration is essential the night before strenuous activity
- Eat regular meals to replace salt. Tablets are unnecessary

- Heat stress accumulates during sequential days of strenuous activity
- Warn personnel that certain dietary supplements (e.g. Ephedra, Ma Juang) and medications (e.g. Cold and Allergy) increase heat injury risk
- Medically screen personnel with acute or chronic medical problems, or taking prescriptions, over the counter medications, or taking dietary supplements, and those with prior heat injury history
- TB MED 507M, Prevention, Training & Control of Heat Injury