

Work/Rest Periods During Hot Weather (Using Wet Bulb Globe Temp)*

Heat Risk Category	WBGT °F	Light Work		Moderate Work		Heavy Work	
		Work/Rest (minutes)	Water Intake (quarts per hr)	Work/Rest (minutes)	Water Intake (quarts per hr)	Work/Rest (minutes)	Water Intake (quarts per hr)
No Risk	78 - 81.9	continuous	1/2	continuous	3/4	50/10	3/4
Low	82 - 84.9	continuous	1/2	50/10	3/4	40/20	1
Moderate	85 - 87.9	continuous	3/4	40/20	3/4	30/30	1
High	88 - 89.9	continuous	3/4	30/30	3/4	20/40	1
Extreme	> 90	50/10	1	20/40	1	10/50	1

* Recommendations given above are for fit, healthy, hydrated humans fully clothed with lightweight summer working clothes.

- Workers that do not fit this description may require longer rest times and increased hydration.
- Heat acclimation typically takes 5 days of heat exposure. Start at 20% of full exposure on Day 1 and increase by 20% each day.

If wearing items listed below then add this number (Clothing Adjustment Factor) to the WBGT to get the Effective WBGT.

- Breathable SMS Polypropylene coveralls: Add 0.5°F
- Micro-porous fabric (e.g., Tyvek): Add 1°F
- Cotton overalls (or 2 layers of woven clothing): Add 3°F
- Full-body, impermeable, protective clothing (e.g., whole-fully chemical protective suite, firefighter turn-out gear): Add 11°F

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Work Level	Activity Examples
Light	Sitting with minimal hand and arm work; writing/drawing Stooping, crouching, kneeling Driving on paved surface; operating equipment Using light hand tools (wrench, pliers); however, this may be moderate work depending on the task Occasional or slow walking (2 mph) on hard surface
Moderate	Mopping or vacuuming floors Scrubbing dirty surfaces Laundry/dry cleaning Pushing lawn mower on level surface Pushing or pulling light carts Raking; Scraping, painting, or plastering General carpentry; using hand tools for short periods Carrying equipment/supplies weighing 20-40 pounds Walking 3.5 mph on hard surface
Heavy	Waxing and buffing by hand Pushing or pulling heavy carts or wheelbarrows Heavy item assembly Sawing of heavy carpentry Using hand tools for extended periods (digging or shoveling; landscaping) Carrying equipment/supplies weighing over 40 pounds Manual raising and lowering loads Walking > 4 mph on hard surface
Very Heavy	Any activity done at/near maximum pace Intense climbing of stairs, ladder Intense shoveling or digging Sledhammer use Brick or stone masonry

[From MN Rules 5205.0110 \(Indoor Ventilation and Temperature\):](#)

"Employees shall not be exposed to indoor environmental heat conditions in excess of the values listed in Table 1."

Table 1. Two-hour time-weighted average permissible heat exposure limits.

Work Activity	WBGT, °F
Heavy	77
Moderate	80
Light	86

Heavy Work = 350 or higher kcal/hr
Moderate Work = 200 to 350 kcal/hr
Light Work = up to 200 kcal/hr

[OSHA Heat Stress and Heat Hazard Assessment \(using WBGT and Metabolic Work Rate\) can be found here.](#)

Figure 4. ACGIH TLV & Action Limit
Source: ACGIH "2017 TLVs and BEIs" FIGURE 2

