

Summer SAFETY TIPS



A woman in a yellow shirt is drinking from a black water bottle. Overlaid on her body is a detailed anatomical illustration showing the brain, muscles, ribcage, and internal organs. Text boxes provide facts about the water content of these body parts and list the benefits of hydration.

LUBRICATES JOINTS

CARRIES NUTRIENTS AND OXYGEN TO CELLS

REGULATES BODY TEMP.

**FIG. I
THE HUMAN BRAIN IS 70% WATER**

**FIG. II
MUSCLES ARE 75% WATER**

**FIG. III
BONES ARE 22% WATER**

**FIG. IV
THE KIDNEY IS 85% WATER**

**FIG. V
BLOOD IS 85% WATER**

HYDRATION

DO YOU NEED ANOTHER REASON?

Summer SAFETY TIPS

Start hydrated and stay hydrated!

Training while dehydrated increases the risk for Heat Illness and poor performance

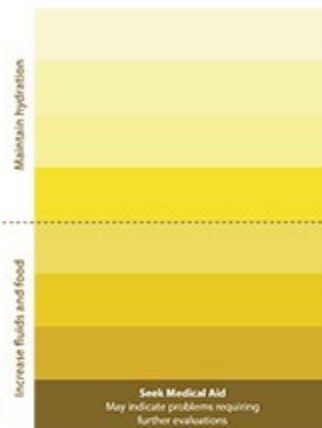
Are you starting hydrated?

Take the Urine Color Test

How does it work?

- **First thing in the morning**, match your urine color to the closest color in the chart. This will tell how well you have hydrated in the past 24 hours.
- Watch the urine stream, not the toilet water, as the water in the toilet will dilute your urine color.
- **Below the line: Increase fluids and food**
- **Above the line: Continue hydration using the Fluid Replacement Guide below.**
- Comparing urine color other than first thing in the morning is not a reliable indicator of hydration status.

Developed in coordination with the
U.S. Army Research Institute of
Environmental Medicine
<http://www.usarlem.army.mil/>



Work/Rest Times and Fluid Replacement Guide

Heat Category	WBGT Index, (°F)	Easy Work Working on hard surface, 2.5 mph, < 30-lb load, weapon maintenance, marksmanship training		Moderate Work Patrolling, walking in sand, 2.5 mph, no load, call duties		Hard Work Working in sand, 2.5 mph with load, field assaults	
		Work/Rest (minutes)	Fluid Intake (quarts/hour)	Work/Rest (minutes)	Fluid Intake (quarts/hour)	Work/Rest (minutes)	Fluid Intake (quarts/hour)
1	70° - 81.9°	NL	1/2	NL	1/4	40/20 (70)*	1/4 (1)*
2	82° - 84.9°	NL	1/2	50/30 (150)*	1/4 (1)*	30/30 (60)*	1 (1 1/4)*
3	85° - 87.9°	NL	1/4	40/20 (100)*	1/4 (1)*	30/30 (55)*	1 (1 1/4)*
4	88° - 89.9°	NL	1/4	30/30 (90)*	1/4 (1 1/4)*	20/40 (60)*	1 (1 1/4)*
5	> 90°	50/30 (180)*	1	20/40 (70)*	1 (1 1/4)*	10/50 (45)*	1 (1 1/4)*

Adherence to this guidance will result in sustained performance and hydration for at least 4 hours of work in the specified heat category. Fluid needs can vary based on individual differences (1 1/2 qt/hr and exposure to full sun or full shade (1 1/2 qt/hr). Fluid means maximal physical activity (sitting or standing) in the shade if possible. Body mass < 150 lb to 180 lb index in humid climates, NBC, DOD 49-4 - Add 1/2 qt (Easy Work) or 2/3 qt (Moderate or Hard Work) to WBGT index. CAUTION: hourly fluid intake should not exceed 1 1/2 qt. Daily fluid intake should not exceed 12 qts.

*Use the amounts in parentheses for continuous work when rest breaks are not possible. Leaders should ensure several hours of rest and rehydration time after continuous work. NL = no limit to work time per hour.



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For more information contact your local
Department of Public Health

