

# Heat Stress

## Understand heat stress risk factors, prevention, and treatment

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### Know your risk factors

#### Health Problems

- Diarrhea, vomiting, cold, or the flu
- Chronic conditions, such as diabetes and heart disease
- Being overweight or obese
- Poor physical fitness



#### Activities

- High exertion
- Not enough rest breaks
- Repeated strenuous days in the heat
- Working through discomfort



Photo by NIOSH

#### Environment

- High temperatures and humidity
- Direct sun exposure
- Lack of wind or breeze
- Closeness to engines or hot equipment



#### Medications

Medications taken for:

- muscle spasms
- blood pressure
- diarrhea
- urine production (diuretics)
- cold, allergies, and congestion
- dizziness/vertigo
- psychosis
- depression



#### Other Factors

- Dehydration
- Prior heat illness
- Age over 60
- Prolonged PPE use
- Non-breathable clothing
- Alcohol use in the past 24 hours



#### Poor Acclimatization

Those requiring acclimatization:

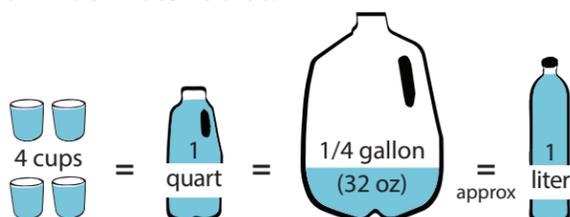
- New workers
- Experienced workers used to heat but returning from time away
- Any worker experiencing sudden temperature changes (e.g., chiller failure)



### Stay hydrated

- Drink before feeling thirsty. By the time you feel thirsty, you are already behind in fluid replacement.
- **When working in the heat, drink 1 cup (8 ounces) every 15–20 minutes (about 1 quart per hour).**

How much water is that?



- Hydrate before and after work.
- Replace electrolytes by eating regular meals.
- Sports drinks can also replace electrolytes but are not usually necessary.
- Avoid energy drinks.

Urine  
Color  
Test

Well Hydrated	Hydrated	Dehydrated Drink water!	Severely Dehydrated Drink water immediately!
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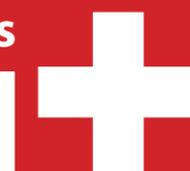
### Get acclimatized to the heat

- Gradually get used to the heat over about 7–14 days.
- Remember that about one week away from work weakens your acclimatization.
- Remember that about one month away from work requires re-acclimatization when returning to the job.

### Apply first aid for heat illness

- *Heat stress*: sit or rest in a cool place, slowly drink water or clear juice.
- *Heat exhaustion*: remove worker from hot area, give liquids, remove unnecessary clothing, cool with water, ice, fans, or whatever is available.
- *Heat stroke*: **call for emergency care immediately**, especially with any mental status change, cool with water, ice, fans, or whatever is available.

**Heat stroke can be fatal if treatment is delayed. Cooling and emergency care are the priorities.**



Centers for Disease Control and Prevention  
National Institute for Occupational Safety and Health