



QUICK GUIDE FOR HEAT STRESS PROTECTION

Exposure to heat can cause illness and possibly death. The most serious heat illness is heat stroke. Other heat illnesses, such as heat exhaustion, heat cramps, and heat rash, should also be avoided. Take precautions any time temperatures are high and the job involves physical work.

Risk Factors for Heat Illness:

- High temperature and humidity, direct sun exposure, no breeze or wind.
- Heavy physical labor.
- No recent exposure to hot environments.
- Low water and electrolyte intake.
- Dark colored or synthetic clothing.

Symptoms of Heat Exhaustion:

- Headache, dizziness, weakness, or fainting.
- Heavy sweating.
- Cold, pale, and clammy skin.
- Irritability or confusion.
- Thirst, nausea, or vomiting.

Symptoms of Heat Stroke:

- May be confused, unable to think clearly, pass out, collapse, or have seizures (fits).
- Will stop sweating.
- Nausea or vomiting.
- High body temperature 103°F or higher.

To Prevent Heat Illness:

- Refer to Caltech's [Heat Illness Prevention Program](#).
- Provide training about the hazards leading to heat stress and how to prevent them.
- Provide cool water to workers close to the work area. At least one quart of water per hour is needed.
- Modify work schedules and arrange frequent rest periods with water breaks in shaded or air-conditioned areas.
- Gradually increase workloads and allow more frequent breaks for workers new to the heat or those who have been away from work to adapt to working in the heat.
- Designate a responsible person to monitor conditions and protect workers who are at risk of heat stress.
- Consider clothing that provides cooling attributes.

How to Protect Workers:

- Know the signs and symptoms of heat illnesses.
- Monitor yourself.
- Use a buddy system.
- Block out direct sun and other heat sources.
- Drink plenty of fluids. Drink often and BEFORE you are thirsty. Drink water every 15 minutes.
- Avoid beverages containing alcohol or caffeine.
- Wear lightweight, light colored, loose-fitting clothes.

What if a Worker is Ill from the Heat?

- Call a Supervisor for help. If the Supervisor is not available, call Campus Security x5000 or (626) 395-5000.
- Security must be notified immediately if the signs or symptoms are indicators of severe heat illness.
- Have someone stay with the worker until help arrives.
- Move the worker to a cooler/shaded area.
- Remove outer clothing.
- Fan and mist the worker with water; apply ice (ice packs, ice bags, or ice towels).
- Provide cool drinking water, if able to drink.

**IF THE WORKER IS NOT ALERT
or seems confused, this may be a heat stroke.**

**CALL x5000 or 626-395-5000 IMMEDIATELY
and attempt to move to a cool area**

IN SUMMARY...

Four steps to prevent heat illness:

- **Training.** Train all employees and Supervisors about heat illness prevention.
- **Water.** Provide fresh water so each employee can drink at least 1 quart or four 8 oz. glasses of water per hour and *encourage them to do so.*
- **Shade.** Provide access to shade and encourage employees to take a cool-down rest in the shade for at least 5 minutes. *They should not wait until they feel sick to cool down.*
- **Planning.** Refer to Caltech's [Heat Illness Prevention Program](#).

**For more information or for Heat Illness Prevention Training, please
contact:**

safety.training@caltech.edu