

## Heat Illness



### FLIGHT LINE HEAT STRESS

Summer is in full swing, and Heat Stress is a serious concern for employees working on and around the aircraft flight line. Concrete and asphalt ramps and flight line surfaces in direct sunlight have been known to reach temperatures capable of causing serious burns with skin contact. These surfaces become a storage mechanism for heat. Reflection and radiation from these aircraft parking areas can increase the ambient air temperature in working areas significantly. A review of heat-induced illness – signs, symptoms, treatment, and prevention should be reviewed with employees by supervisors frequently through the following Safety Briefing.

When the body is unable to cool off by sweating, heat-induced illnesses such as **heat exhaustion** and **heat stroke** can occur. These illnesses are very serious and can sometimes result in death.

High temperatures, humidity, direct sun or heat, limited air movement, physical exertion, poor physical condition, some medications, and inadequate tolerance for hot workplaces or areas can all contribute to heat stress.

To control this hazard, take precautions, be able to recognize the symptoms of heat exhaustion and heat stroke, and know what to do in the event of a heat-related illness.

# Heat Illness

## Common Symptoms of Heat Illness

<b>Heat exhaustion:</b>	<b>Heat stroke:</b>
<ul style="list-style-type: none"><li>• Headaches</li><li>• Dizziness, lightheadedness, or fainting</li><li>• Extreme weakness</li><li>• Profuse sweating</li><li>• Irritability</li><li>• Nausea or vomiting</li><li>• Cramps</li></ul>	<ul style="list-style-type: none"><li>• Dry, hot skin with no sweating</li><li>• Strong, rapid pulse</li><li>• Dizziness and nausea</li><li>• Confusion or irrational behavior</li><li>• Seizures or convulsions</li><li>• Loss of consciousness</li></ul>

## Planning and Monitoring

- Have a written emergency action plan:
  - Determine a means of effective communication between supervisors and employees.
  - Establish procedures for contacting emergency response services and administering first aid and train employees on them.
- Monitor for weather events or major changes in temperature throughout the workday.
- Establish and maintain communications between employees and supervisors.
- Close monitoring by supervisors should be supplemented by peer monitoring by employees.
- If the temperature reaches or exceeds **95°F**, additional steps must be taken to monitor employees for water intake and symptoms of heat illness.
- Closely observe new employees during their first 14 days of employment in high heat areas as they acclimatize.
- Always staff the work area with at least one person capable of administering first aid.

# Heat Illness

## General Controls

- Provide shaded areas large enough to accommodate all employees during meal, rest, or recovery periods. This can be achieved through rotation of employee breaks.
- Locate shaded areas and drinking water as close as feasible to the areas where employees are working.
- Provide employees with one quart of water minimum per hour for the entirety of shift.
- If any employee feels the need for protection from overheating, allow a rest period of at least five minutes.
- Encourage employees to stay in the shaded areas during rest periods.
- Acclimatize employees by having them work for short periods of time in the heat and gradually increase their time in the heat over a two-week period.
- Use cooling fans or air-conditioning if possible.
- Employees should wear lightweight, light-colored, and loose-fitting clothes.
- Employees should avoid alcohol, caffeinated drinks, and heavy meals.

## Control Requirements for High-Risk Temperatures

In addition to general heat illness prevention measures, employers must establish the following controls for heat waves and extreme heat conditions:

<b>Heat Wave Conditions</b> <i>Temperatures equal to or exceeding 80°F or anytime the temperature is 10°F higher than normal</i>	<b>Extreme Heat Conditions</b> <i>Temperatures equal to or exceeding 95°F</i>
<b>Shaded Break Periods</b>	
<ul style="list-style-type: none"> <li>• Provide shaded areas large enough to accommodate all employees during meal, rest, or recovery periods. This</li> </ul>	<b>In addition to heat wave controls:</b> <ul style="list-style-type: none"> <li>• Institute a mandatory work/rest periods determined by the temperature and humidity. The higher the temperature</li> </ul>

## Heat Illness

<p>can be achieved through rotation of employee breaks.</p> <ul style="list-style-type: none"> <li>• Locate shaded areas as close as feasible to the areas where employees are working.</li> <li>• The provision of seating is recommended.</li> </ul>	<p>and humidity – the longer the break/recovery period each hour worked.</p> <ul style="list-style-type: none"> <li>• Supervisors must remind employees to rest.</li> </ul>
<b>Fluid Intake</b>	
<ul style="list-style-type: none"> <li>• General controls apply.</li> </ul>	<p><b>In addition to general controls:</b></p> <ul style="list-style-type: none"> <li>• Require supervisors to remind employees to drink water.</li> </ul>
<b>Employee Monitoring</b>	
<p><b>In addition to general controls:</b></p> <ul style="list-style-type: none"> <li>• Increase the number of supervisors to provide adequate close observation and monitoring of employees.</li> </ul>	<p><b>In addition to heat wave controls:</b></p> <ul style="list-style-type: none"> <li>• Assure failsafe communication methods between supervisors and employees.</li> </ul>

### Responding to Heat-Related Illnesses

- **Never** order employees back to work if they exhibit symptoms of a heat illness.
- Notify a supervisor or appropriate individual with first aid training.
- For heat stroke, follow the emergency procedure in the heat stress prevention plan.
- Request Emergency Medical Services if signs and symptoms do not improve during the rest period.
- The individual giving care must:
  - Move the affected person to a cool, shaded area.
  - Loosen or remove any heavy clothing.
  - Provide cool (but not cold) drinking water.
  - Fan and mist the person with water.

# Heat Illness

Organization: \_\_\_\_\_ Date: \_\_\_\_\_

Trainer: \_\_\_\_\_ Trainer's Signature: \_\_\_\_\_

## Class Participants:

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_