



# SAFETY TIPS

## 2022 HEAT RELATED ILLNESS

The summer season encompasses the hottest months of the year and subsequently has the most heat related injuries and illnesses. Some heat related illness can be fatal if treatment is not provided quickly. We must learn to recognize and treat heat related illness to prevent our fellow Marines, Sailors and family or friends from suffering from their effects. Early detection of heat related illness is key. The following safety tips are offered to help recognize, prevent and treat heat related illness:

**HEAT RELATED ILLNESS:** Refer to chart for most common symptoms and treatments:

**Heat Stroke:** The most severe and dangerous of the heat related illnesses. Heat Stroke involves extreme core body temperatures (in excess of 103 degrees). It can cause death or permanent disability if emergency treatment is not provided immediately.

**Heat Exhaustion:** The next most severe heat related illness. Heat Exhaustion is the body's response to an excessive loss of water and salt, usually through excessive sweating.

**Heat Cramps:** Heat cramps usually affect those who sweat a lot during strenuous exercise or activities. Sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes heat cramps.

**Sunburn:** Extended skin exposure to the sun causes painful sunburns. Use sunscreen with Broad Spectrum or UVA/UVB to prevent sunburns. Re-apply sunscreen to all exposed body parts often. Sunburns prevent the body's ability to cool down.

**Heat Rash:** Heat rash is a skin irritation caused by excessive sweating during hot, humid weather.

**Heat Awareness and Prevention Tips:**

No one is immune to heat related illness, but symptom awareness and prevention are key factors in reducing the effects of heat on the body. Some health tips to consider during hot, summer months:

- Stay indoors in an air conditioned space, and out of the heat.
- Wear loose fitting, light weight, and light-colored clothing.
- Avoid extremely cold beverages as these can cause stomach cramps.
- Take cool showers/baths or use cold compresses to help stay cool.
- Drink plenty of water; don't wait until thirsty to drink.
- Avoid alcohol and beverages containing lots of sugars.
- Minimize outdoor time and strenuous activities during hottest times of the day.
- Self-evaluate heat-stress levels; the prevention key is Water-Rest-Shade.

HEAT-RELATED ILLNESSES	
WHAT TO LOOK FOR	WHAT TO DO
<b>HEAT STROKE</b>	
<ul style="list-style-type: none"> <li>• High body temperature (103°F or higher)</li> <li>• Hot, red, dry, or damp skin</li> <li>• Fast, strong pulse</li> <li>• Headache</li> <li>• Dizziness</li> <li>• Nausea</li> <li>• Confusion</li> <li>• Losing consciousness (passing out)</li> </ul>	<ul style="list-style-type: none"> <li>• Call 911 right away-heat stroke is a medical emergency</li> <li>• Move the person to a cooler place</li> <li>• Help lower the person's temperature with cool cloths or a cool bath</li> <li>• Do not give the person anything to drink</li> </ul>
<b>HEAT EXHAUSTION</b>	
<ul style="list-style-type: none"> <li>• Heavy sweating</li> <li>• Cold, pale, and clammy skin</li> <li>• Fast, weak pulse</li> <li>• Nausea or vomiting</li> <li>• Muscle cramps</li> <li>• Tiredness or weakness</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Fainting (passing out)</li> </ul>	<ul style="list-style-type: none"> <li>• Move to a cool place</li> <li>• Loosen your clothes</li> <li>• Put cool, wet cloths on your body or take a cool bath</li> <li>• Sip water</li> </ul> <p><b>Get medical help right away if:</b></p> <ul style="list-style-type: none"> <li>• You are throwing up</li> <li>• Your symptoms get worse</li> <li>• Your symptoms last longer than 1 hour</li> </ul>
<b>HEAT CRAMPS</b>	
<ul style="list-style-type: none"> <li>• Heavy sweating during intense exercise</li> <li>• Muscle pain or spasms</li> </ul>	<ul style="list-style-type: none"> <li>• Stop physical activity and move to a cool place</li> <li>• Drink water or a sports drink</li> <li>• Wait for cramps to go away before you do any more physical activity</li> </ul> <p><b>Get medical help right away if:</b></p> <ul style="list-style-type: none"> <li>• Cramps last longer than 1 hour</li> <li>• You're on a low-sodium diet</li> <li>• You have heart problems</li> </ul>
<b>SUNBURN</b>	
<ul style="list-style-type: none"> <li>• Painful, red, and warm skin</li> <li>• Blisters on the skin</li> </ul>	<ul style="list-style-type: none"> <li>• Stay out of the sun until your sunburn heals</li> <li>• Put cool cloths on sunburned areas or take a cool bath</li> <li>• Put moisturizing lotion on sunburned areas</li> <li>• Do not break blisters</li> </ul>
<b>HEAT RASH</b>	
<ul style="list-style-type: none"> <li>• Red clusters of small blisters that look like pimples on the skin (usually on the neck, chest, groin, or in elbow creases)</li> </ul>	<ul style="list-style-type: none"> <li>• Stay in a cool, dry place</li> <li>• Keep the rash dry</li> <li>• Use powder (like baby powder) to soothe the rash</li> </ul>



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**HEAT ACCLIMITIZATION:** Millions of people are exposed to heat on a daily basis. Although illness from exposure to heat is preventable, every year thousands become sick from heat exposure and some cases are fatal. Most outdoor fatalities (50-70%) occur in the first few days of working in warm or hot environments because the body needs to build up a tolerance to the heat gradually over time. The process of building tolerance is called heat acclimatization. Lack of acclimatization represents a major risk factor for fatal outcomes. Learn to pace yourself and take breaks. Monitor weather conditions and know when hottest parts of the day occur. Keep an eye on each other.



**HEAT-RELATED ILLNESSES AND FIRST AID:** Become familiar with heat symptoms. When any of these symptoms are present, promptly provide first aid. Do not try to diagnose which illness is occurring. Diagnosis is often difficult because symptoms of multiple heat-related illnesses can occur together.

- Time is of the essence. When in-doubt call emergency services or 911.
- Cool the person immediately. Use active cooling techniques (fan a towel, shirt, blanket, etc.).
- If moveable, take the affected person to a cooler area (e.g. shade or air conditioning space).
- Loosen or remove outer layers of clothing, especially heavy protective clothing.
- Place ice or cold wet towels on the head, neck, trunk, armpits, and groin.
- Use electric or battery operated fans to circulate air around the person.
- Never leave a person with heat-related illness alone. The illness can rapidly become worse.

**HEAT RELATED MISHAPS:** The following MARFORCOM heat related illnesses occurred the last few years:

- LCpl, rode bicycle to the beach to conduct PT. Sustained heat exhaustion and severe sun burn.
- PFC, became a heat casualty while returning from a field exercise. Body temp rose to **104.6**.
- LCpl, working in hangar and began cramping and felt pain in chest. Suffered from heat stroke.
- Cpl, conducting field exercise, sustained a body temperature of **109**. Rushed to hospital for treatment.
- LCpl, conducting 3-mile run, lost consciousness. Sustained heat stroke with body temp rising to **107**.
- PFC, hiking with a 75 pound load, fell out with a core temperature of **107.5**. PFC experienced hallucinations and was unable to walk straight; determined to be severely dehydrated.



**CARRY IDENTIFICATION:** Marines are reminded to carry identification (ID card, dog tags) while conducting PT. Recent mishaps have occurred with Marines while conducting PT, both on and off base. Some of those Marines were not carrying identification and encountered treatment delays. To alleviate potential delays ensure your unit and/or emergency contact are readily available, and display any medical, allergy or medicine alerts. Let someone know where you are going to conduct PT and your estimated return time.

**RISK MANAGEMENT (RM):** Every Marine is responsible for breaking the chain of events that leads to a heat related mishap. Incorporate 'In-Depth' or 'Deliberate' planning into summer events, and apply RM to all activities. Exercise discipline in avoiding needless risks and their consequences. Use the 'Battle Buddy' system when engaging in outdoor activities. Hydrate, rest, make smart decisions and continue to watch out for one another.

#### **RESOURCES:**

<https://www.cdc.gov/disasters/extremeheat/warning.html>

<https://www.cdc.gov/niosh/topics/heatstress/acclima.html>

<https://www.cdc.gov/niosh/topics/outdoor/>

<https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2017-128.pdf>

Manage the Risk



Protect the Force