



EXCESSIVE HEAT

In recent years, excessive heat has caused more deaths than all other weather events, including floods. A heat wave is a prolonged period of excessive heat, generally 10 degrees or more above average, often combined with excessive humidity. Heat kills by pushing the human body beyond its limits. In high heat and humidity, evaporation is slowed and the body must work harder to maintain a normal temperature. Most heat related illnesses occur because the victim has been overexposed to heat or has too much physical activity for his or her age or physical condition. Older adults, young children and those that are sick or overweight are more likely to succumb to extreme heat.

Conditions that can induce heat related illnesses include stagnant atmospheric conditions and poor air quality. Consequentially, people living in urban areas may be a greater risk from the effects of a prolonged heat wave than those living in rural areas. Asphalt and concrete store heat longer and gradually release heat at nights, which can produce higher nighttime temperatures known as the "urban heat island effect"

1. Be Informed and Know the Terms

A heat wave is an extended period of extreme heat, and is often accompanied by high humidity. These conditions can be dangerous and even life threatening for humans who do not take precautions. You will likely hear weather forecasters and public health officials use these terms when a heat wave is predicted in Long Beach. Familiarize yourself with these terms to help identify an extreme heat hazard:

- **Heat Index**
The heat index is the temperature the body feels when the effects of heat and humidity are combined. This number is usually given in degrees Fahrenheit (F). Exposure to full sunshine can increase the heat index by 15 degrees.
- **Excessive Heat Watch**
Conditions are favorable for an excessive heat event to meet or exceed local Excessive Heat Warning criteria in the next 24 to 72 hours.
- **Excessive Heat Warning** (daytime highs=105-110° Fahrenheit)
Heat Index values are forecast to meet or exceed locally defined warning criteria for at least 2 days.
- **Heat Advisory** (daytime highs=100-105° Fahrenheit)
Heat Index values are forecasting to meet locally defined advisory criteria for 1 to 2 days.
- **Heat Cramps**
Heat cramps are muscular pains and spasms due to heavy exertion.
- **Heat Exhaustion**
Typically occurs when people exercise or work in a hot, humid place where body fluids are lost through heavy sweating.
- **Heat Stroke**

A life-threatening condition where the victim's temperature control system stops working.

- **Sun Stroke**

A sun stroke is another term for a life-threatening heat stroke.

2. Know the Symptoms of and First Aid Response for Heat Related Conditions

Condition	Symptoms	First Aid Response
Sunburn – overexposure to the ultraviolet rays of the sun.	<ul style="list-style-type: none"> ◊ Redness of the skin ◊ Pain ◊ Possible swelling ◊ Possible blistering ◊ Possible peeling of skin ◊ Fever ◊ Headache 	<ul style="list-style-type: none"> ◊ Take a shower, use soap to remove any oils blocking pores preventing the body from cooling naturally ◊ Do not apply lotions, creams or ointments that will block the pores ◊ Apply dry sterile dressing to blisters and seek medical attention
Heat Cramps - muscular pains and spasms in the legs or abdomen caused by exposure to heat loss of fluids.	<ul style="list-style-type: none"> ◊ Elevated body temperature ◊ Thirst ◊ Sweating ◊ Tachycardia ◊ Muscle cramps ◊ Pain 	<ul style="list-style-type: none"> ◊ Get the person to sit or lie down in a cooler location. ◊ Lightly stretch and gently massage affected muscles to relieve spasms. ◊ Give an electrolyte-containing fluid, such as a commercial sports drink, fruit juice or milk. Water may also be given. Do not give the person salt tablets. ◊ Give sips of up to a half glass of cool fluids every 15 minutes. ◊ Do not give liquids with caffeine or alcohol. ◊ Discontinue liquids, if victim is nauseated.
Heat Exhaustion - typically involves the loss of fluids through sweating during strenuous exercise or labor high heat.	<ul style="list-style-type: none"> ◊ Symptoms of Cramps & ◊ Nausea/vomiting ◊ Cool, moist, pale, ashen or flushed skin ◊ Headache ◊ Weakness/exhaustion ◊ Dizzy/lightheadedness ◊ Uncoordinated ◊ Irritability ◊ Confusion 	<ul style="list-style-type: none"> ◊ Move the person to a cooler environment with circulating air ◊ Get victim to lie down in a cool place. ◊ Loosen or remove as much clothing as possible ◊ Apply cool, wet clothes to the skin. ◊ Fan or spray the person with a mister ◊ If victim is conscious, give sips of up to a half glass of cool water every 15 minutes ◊ Discontinue water if victim is nauseated. ◊ Call 9-1-1 and seek immediate medical attention if: <ul style="list-style-type: none"> ◊ the person's condition does not improve ◊ the person refuses water ◊ the person has a change in consciousness ◊ the person vomits
Heat Stroke - <u>a life-threatening condition</u> in which the body is unable to cool itself.	<ul style="list-style-type: none"> ◊ Symptoms of Heat Exhaustion & ◊ Extremely high body temperature ◊ red skin which will be dry or have very little moisture ◊ Changes in consciousness ◊ Rapid, weak pulse ◊ Rapid, shallow breathing ◊ Disorientation ◊ Seizures 	<ul style="list-style-type: none"> ◊ Call 9-1-1 or get the person to a hospital immediately ◊ Until Paramedics arrive, reduce the person's body temperature: <ul style="list-style-type: none"> ◊ Move victim to a cooler environment. ◊ Removing clothing ◊ Immerse the person up to the neck in cold water, or ◊ Spray the person with cold water or ◊ Cover the person with ice water drenched towels or ◊ Cover the body with bags of ice ◊ Watch for breathing problems ◊ Use extreme caution ◊ Use fans and air conditioners

3. Preparing for a Heat Wave

- Listen to local weather forecasts and stay aware of upcoming temperature changes.
- Be aware of both the temperature and the heat index.

- Discuss heat safety precautions with members of your household. Have a plan for wherever you spend time— home, work and school—and prepare for the possibility of power outages.
- Check the contents of your emergency preparedness kit in case a power outage occurs.
- Know those in your neighborhood who are elderly, young, sick or overweight. They are more likely to become victims of excessive heat and may need help.
- If you do not have air conditioning, choose places you could go to for relief from the heat during the warmest part of the day (schools, libraries, theaters, malls).
- Get trained in First Aid to learn how to treat heat-related emergencies.
- Ensure that your animals' needs for water and shade are met.

Before Extreme Heat

To prepare for extreme heat, you should:

- To begin preparing, you should [build an emergency kit](#) and make a [family communications plan](#).
- Check air-conditioning ducts for proper insulation.
- Install temporary window reflectors (for use between windows and drapes), such as aluminum foil-covered cardboard, to reflect heat back outside.
- Weather-strip doors and sills to keep cool air in.
- Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers. (Outdoor awnings or louvers can reduce the heat that enters a home by up to 80 percent.)
- Listen to local weather forecasts and stay aware of upcoming temperature changes.
- Know those in your neighborhood who are elderly, young, sick or overweight. They are more likely to become victims of excessive heat and may need help.
- Get trained in first aid to learn how to treat heat-related emergencies.

4. Responding Appropriately During a Heat Wave

- Listen to a NOAA (National Oceanic and Atmospheric Administration) Weather Radio for critical updates from the National Weather Service (NWS).
- Never leave children or pets alone in enclosed vehicles.
- Wear loose-fitting, lightweight, light-colored clothing. Avoid dark colors because they absorb the sun's rays.
- Postpone outdoor games and activities.
- Take frequent breaks if you must work outdoors.
- Check on family, friends and neighbors who do not have air conditioning, who spend much of their time alone or who are more likely to be affected by the heat.
- Stay on the lowest floor out of the sunshine if air conditioning is not available.
- Consider spending the warmest part of the day in public buildings such as libraries, schools, movie theaters, shopping malls, and other community facilities. Circulating air can cool the body by increasing the perspiration rate of evaporation.
- Eat well-balanced, light, and regular meals. Avoid using salt tablets unless directed to do so by a physician.
- Drink plenty of water; even if you do not feel thirsty. Avoid drinks with caffeine. Persons who have epilepsy or heart, kidney, or liver disease; are on fluid-restricted diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.
- Limit intake of alcoholic beverages.
- Protect face and head by wearing a wide-brimmed hat.
- Avoid strenuous work during the warmest part of the day. Use a buddy system when working in extreme heat, and take frequent breaks.
- Check on your animals frequently to ensure that they are not suffering from the heat.

- **Let your family know you are safe**

For additional information on emergency preparedness, please visit any of the following on-line resources:

- American Red Cross
www.redcross.org/mobile
- National Weather Service
www.weather.gov
- American Red Cross Safe and Well
www.redcross.org/safeandwell

City of Long Beach:

Disaster Preparedness:

<http://www.longbeach.gov/disasterpreparedness>

Police Department

<http://www.longbeach.gov/police/default.asp>

Health and Human Services

<http://www.longbeach.gov/civica/filebank/blobdload.asp?BlobID=9067>

County Agency:

Los Angeles County Office of Emergency Management

<http://www.lacoa.org/>

State Agency:

The Governor's Office of Emergency Services

<http://www.oes.ca.gov/>

Federal Agency:

Department of Homeland Security

<http://www.dhs.gov/index.shtm>

U.S. Geological Survey – Specific earthquake information and maps.

<http://www.usgs.gov/>

Center for Disease Control and Prevention

<http://www.cdc.gov/> or <http://www.bt.cdc.gov/planning/index.asp>

City of Long Beach Emergency Phone Numbers:

Emergencies Dial 911

- **Gas Department: 562.570.2140**
- **Water and Sewer: 562.570.2390**
- **Public Works: 562.570.2700**
- **Police Non-Emergency 562.435.6711**
- **Fire Non-Emergency 562.570.9400**

Social Media:

You can also sign up for any of the City of Long Beach social media accounts and receive updates on the City's disaster responses, as well as information to assist you.

www.facebook.com/CityofLongBeachCA

<https://twitter.com/LongBeachCity>

www.youtube.com/user/LongBeachCityCA

