

Avoid “Water Poisoning”

Do not gulp large quantities of plain water, to avoid a condition called “water intoxication” or “water poisoning”, which happens when the water causes blood cells to break down as they try to balance the salt level. Symptoms include headaches, nausea, confusion, or muscle weakness. In rare cases this can be fatal if extremely large volumes of plain water are drunk over a short period of time.

Heat Index

High humidity makes heat more dangerous. As this Heat Index chart shows, a 90° day has the impact of 100° at 60% humidity or 127° when the humidity reaches 95%. Conditions inside buildings without air conditioning worsen if there is no breeze or cloud cover to reduce temperature buildup.

NWS Heat Index		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136	
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137		
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137			
55	81	84	86	89	93	97	101	106	112	117	124	130	137				
60	82	84	88	91	95	100	105	110	116	123	129	137					
65	82	85	89	93	98	103	108	114	121	128	136						
70	83	86	90	95	100	105	112	119	126	134							
75	84	88	92	97	103	109	116	124	132								
80	84	89	94	100	106	113	121	129									
85	85	90	96	102	110	117	126	135									
90	86	91	98	105	113	122	131										
95	86	93	100	108	117	127											
100	87	95	103	112	121	132											

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution
Extreme Caution
Danger
Extreme Danger

Thermometers that measure both indoor and outdoor temperatures and humidity are helpful. Many digital systems collect the outdoor values wirelessly, with some sending results to your smart phone. Use thermometers to tell when the outside air is cooler than inside and close doors and windows when the outside is at the same or higher temperature than inside.

Practice HEAT SAFETY Wherever You Are

Heat-related deaths are preventable. Protect yourself and others from the impacts of heat waves.

- Job Sites:** Stay hydrated and take breaks in the shade as often as possible.
- Indoors:** Check up on the elderly, sick and those without AC.
- Vehicles:** Never leave kids or pets unattended - LOOK before you LOCK.
- Outdoors:** Limit strenuous outdoor activities, find shade, and stay hydrated.

weather.gov/heat

For details about preparing your home or business for disasters see: DisasterReadyDHSF.com Resilient Diamond Heights (RDH) is part of the San Francisco Neighborhood Empowerment Network (NEN) empowersf.org

Navigating Heat Emergencies



Many San Francisco buildings have no air conditioning. Record high temperatures during the 2017 Labor Day weekend resulted in at least 3 deaths* and hundreds of people requiring medical attention. Two of the three days were over 100° with nighttime lows staying over 80°.

At-Risk Populations

Elderly: Older individuals are at highest risk because their bodies are less efficient at managing heat. They may have underlying medical conditions, reduced reasoning skills and may live alone.

Illness or Obesity: People who are ill or who carry extra weight may develop heat illness faster than others. Medications, such as beta-blockers, water pills, or psychotropic drugs may worsen heat impact.

Align vulnerable people with a network of neighbors or friends to check on their wellbeing. Ask 3 neighbors in advance to check in during heat or other emergencies. Friends or relatives can phone on a regular basis to remind them to drink fluids, move to cooler locations, or take medications. Coordinate calls so they are not bombarded with the same reminders.

Children: Young people are at risk because their bodies may not yet properly regulate internal temperatures. They may go “full speed” and suddenly collapse from heat illness. Keep a close eye on children.

“Healthy” People: Anyone who is not acclimated to hot weather may develop heat illness during high exertion from work or sports. Injuries can increase sensitivity. Clothes that are too heavy or tight contribute to illness. Alcoholic beverages reduce the body’s ability to regulate temperature.

Sheltering In Place

Find a cooler place to sleep or nap if your bedroom is on the top floor because a flat roof or dark shingles act as solar collectors. Insulation on the top floor slows heat from entering the first day, but may become a heat source on following days if nighttime temperatures do not drop below 80°.

*These were deaths attributed only to heat. It is likely that other deaths involved heat aggravating other natural causes.



Close blinds or drapes on the sunny sides of your home as sunlight adds solar energy to the heated air. Windows on the south or west collect the more intense afternoon sun.

Keep cooking to a minimum, and especially do not start the oven.

Fans

Electric fans do not cool the air they move. They are only effective when the air passes over the body to help with evaporation of sweat. Don't point fans upward because warm air moves toward the ceiling and the fan can push it back into the room. Ceiling fans may help circulation in an air-conditioned space, but may force hot air downward without air-conditioning.

Fans can move cooler air if the outside air is cooler than inside. Fans "push" air better than "pull", so place the fan outside when possible, blowing into an open door or window. Aim the fan horizontally to move the cooler air along the floor, pushing the warmer air out the top of the door or window. Screens reduce airflow, but prevent bugs, rodents or burglars from entering in the middle of the night. Turn on the kitchen and bathroom exhaust fans to push hot air out, allowing cooler air to enter through open windows.

Public Spaces

If your home cannot be made cool enough to keep people healthy, consider finding an air-conditioned space, such as a store, theatre or library. Because these locations may close before your home has cooled, you may find yourself moving from place to place. Remember that moving back and forth between air-conditioned and hot spaces can cause additional body stress.

The City may provide Cooling Centers for extended heat emergencies. Check the Internet or news for details. FM 88.5 (KQED) or AM 740 (KCBS) are the official emergency radio frequencies.

Heat Illness

The body uses evaporating sweat to cool internal organs. High humidity reduces evaporation. Some people produce almost no sweat, making them more susceptible to heat illness. Untreated heat illness may injure internal organs or cause death in extreme cases.

NOTE: Pets do not sweat and depend on panting to evaporate moisture from their tongue to regulate temperature. Supply pets with plenty of cool water and shade on hot days.

There are three stages of heat illness Heat Cramps, Heat Exhaustion and Heat Stroke.

Heat Cramps: Heavy sweating causes a loss of both water and salt. This may cause **muscle cramps** and pain along with **fatigue and thirst**.

Heat Exhaustion: Continued heat stress leads to health issues that require first aid and includes these symptoms:

- Feeling **Dizzy, Lightheaded or Headaches**
- Internal discomfort of **Nausea or Vomiting**
- **Rapid, Weak** heartbeat and breathing
- Very **sweaty, damp skin**
- Not **peeing** or having very dark yellow **pee**

Heat Stroke: This is a serious medical condition when the body can no longer regulate internal temperature. Symptoms include:

- **Rapid, Strong** heartbeat and breathing
- Body temperature **above 103°**
- Skin is **dry and red with little or no sweating**
- **Sunken** eyes
- Lack of energy, **Sleepiness, Confusion** or **Fainting**

NOTE: If the person shows signs of Heat Stroke, call 911 and give first aid until help arrives. Signs of shock include bluish lips and fingernails, decreased alertness, seizures, or unconsciousness.

First Aid

The first step is to move them to a cooler space. Find a shaded area or cooler room if air conditioning is not available.

Hydration

Heat illness begins with dehydration. You are already dehydrated by the time you feel thirsty. Prevention involves drinking small amounts of liquids frequently, at a rate of ½ cup (4 oz.) each 30 minutes.

WARNING: Never try to give liquids to someone who is unconscious or semi-conscious.

If the patient is fully conscious, have them sit down and sip ½ glass of salted water (1 teaspoon per quart) or sports drink every 15 minutes. If salt is not available, juice, soft drinks, or plain water will help. *Do not use alcoholic or caffeinated beverages as these cause further dehydration.*

Reduce Body Temperature

If they are feeling faint, have them lie down with their feet elevated 12 inches. If they are unconscious, lay them on their side in "recovery position."

Apply cool compresses (cloth soaked in water) directly to the skin at the forehead, neck, groin and armpits. If you have a fan, use it to move air across them. A cool (not cold) shower is the best way to reduce body temperature if the patient is able to stand.

