



# Heat Waves and Health

**What is extreme heat?**

Extreme heat event is when temperatures are significantly hotter than normal.

**What is an urban heat island?**

Urban neighborhoods that face hotter temperatures.

**What contributes to urban heat islands?**

Concrete, traffic, roads, parking lots, fewer trees, more buildings.

## Health Impacts from Extreme Heat



Leads to breathing problems, heat stroke, tiredness, headaches, and nausea



Dehydration - not enough fluid in the body to keep it working properly



Increases risk of preterm birth (babies born early)



Harder to sleep well leading to poor sleep quality

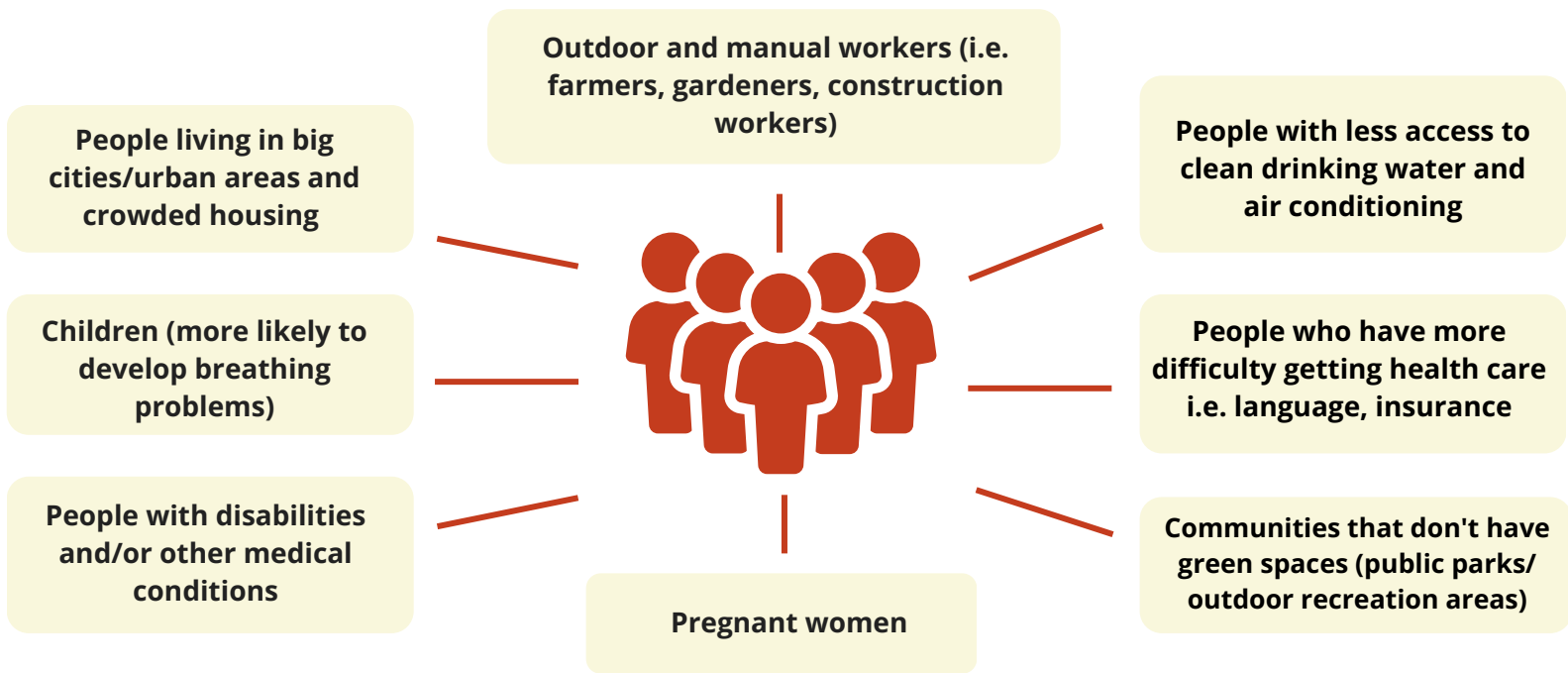


Stress on the heart organ



Increases risk of mental illness

# Who Is Most At Risk?



## How Can You Take Action?

- 1 Drink around 2-3 liters of water throughout the day


- 2 Limit exercise and activity when it is the hottest (11 AM - 5 PM)


- 3 Use your air conditioner (AC) or fan


- 4 Have a "buddy system" to check in on people who need extra help in the community


- 5 Partner with groups that want to create more protections for the community and the environment like more shaded/green space and setting rules on pollution.


- 6 Partner with community groups to plant trees, develop heat action plans, warning systems, and long-term plans to decrease heat waves



## Community Resources

Check Air Quality Here:



Air Visual App:



Real-Time Weather:



Environmental Health Centers  
 Infographic: Janelle Vidal, USC  
 NIH (2P30ES007048 and ACE-EH  
 6922-06-CH-S003)

<https://envhealthcenters.usc.edu/>

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# What can I do if I'm at home during an extreme heat event without AC?

## 1 Drink more water

Sip on more water than you normally drink. If you are thirsty, it means you are dehydrated. Sweating can make you lose water and electrolytes, which help balance your body's fluids.



## 2 The Power of Water

Stay cool by using a bucket full of water to cool your feet in. You can also wet a small towel or cloth to place at the back of your neck or forehead to lower your body heat.



## 3 Stay Low to Stay Cool

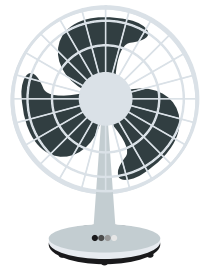
If you have a home with multiple stories, **go to the lowest level** to avoid heat, which rises. **Close doors in rooms** that you are not using to save cold air in smaller areas.



## 4 AC Alternatives

### Make your own AC:

If you have a box fan, set a pan of ice between yourself and the fan pointed at you to cool the breeze down.



### Use ceiling or small fans to circulate more air.

If you have an exhaust fan in your kitchen, bathroom, or attic, turn this on to pull hot air out of your home.



## 5 Block out the Sun



**Close blinds and curtains** to block out the sun during the day, or try blackout curtains. Avoid leaving the house during peak sunlight hours of 11am and 5pm.

## 6 Avoid Extra Heat Sources

**Turn off extra sources of heat** like lights, plugged-in running appliances, electronics chargers, TVs, and cooking equipment like ovens and stoves. Instead, **slow cookers are a good option** to prevent heat from spreading throughout the house.



## 7 Eat for the Heat

Eat **multiple smaller, cold meals** like sandwiches. **Avoid too much sugar**, which increases the energy needed for digestion and can make you feel hotter. **Avoid caffeine and alcoholic drinks**, which can make you more dehydrated.







# Using Public Transport during Heat Waves

## How to Protect Yourself

**Stay Hydrated**



Carry a water bottle to make sure that you drink at least 2-4 liters of water



**Dress Appropriately**

Wear loose, light-colored, and breathable clothing and sunscreen





**Wait in the Shade**




Shade can make the air feel up to 10 degrees cooler




**Plan your Travel**

Check schedules, track buses and trains using apps like Google Maps and Transit



## How to Protect Your Community

Work to make buses, trains, and other public transportation better and easier to use for everyone in your community

**Push for Buses to Come More Often**





**Add Shaded Bus Shelters**



**Shade sidewalks and bike paths by adding more trees**




**Put thermometers, ventilation, & misting systems on stops, buses, & trains**



**Paint buses white and tint windows to protect from the sun**




**More accessible cooling centers and public drinking fountains**



# Pregnancy & Heat Waves

Being pregnant can make you more likely to get sick from the heat. It may also cause problems for the baby's development.

## Recognize Signs of Heat Impacts

### Dehydration

You may feel more thirsty, go to the bathroom less, have a dry mouth, feel confused or dizzy. Some pregnant people may also feel false contractions.



### Heat Exhaustion

When your body loses too much water and electrolytes through sweat, you will feel tired, lightheaded, weak, and/or nauseated



### Heat Stroke

When your body temperature reaches above 104 °F it can lead to strong headaches, fast pulse, seizures, and it could harm the baby



**Other Signs:** Heat rash, edema (swollen feet, legs, arms, etc.), cramps, clammy skin, confusion, fast breathing, severe sunburn, and loss of appetite

## How to Protect Yourself

### Stay Hydrated

Drink at least 8-12 cups of water daily. Avoid sugary and caffeinated drinks. These can cause more dehydration



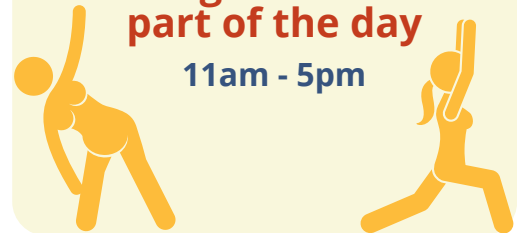
### Eat light & nutritious meals

Eat multiple small, cold meals that include fruits, vegetables, and whole grains



### Avoid exercising or outdoor activities during the hottest part of the day

11am - 5pm



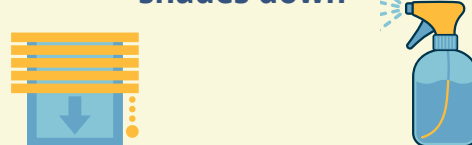
### Dress Appropriately

Wear sunscreen and loose, light-colored, thin clothes made from fabrics such as cotton & linen



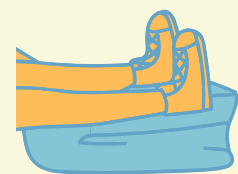
### Keep it Cool

Use fans, air conditioners, spray bottles, cold damp towels, & keep window shades down



### Elevate your Feet

Heat may increase swelling in feet



## Tips for Students & Parents

Tell school staff about any health issues



Bring a big water bottle



Wear loose, breathable, & light-colored clothes



Wear sunscreen with at least 30 SPF



## Tips for Teachers, Staff & Administration

Close doors and windows in AC rooms; report malfunctions



Have a "cool room" for students showing heat stress signs such as increased thirst, fatigue, excessive sweating, nausea, headaches, muscle aches, dizziness



Consider allowing hats on hot days

Cool rooms without AC by lowering shades



A lot of water breaks for students

## Tips for Physical Education, Sports & Recess

Schedule activities during cooler times: before 11AM or after 5PM

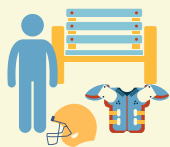


Take regular breaks in a shaded area



Shorten outdoor activities or shift to indoors AC rooms

Tell athletes to remove extra gear on sidelines and breaks



More restful, indoor activities like yoga or dance

## Tips for your Community

Push for water stations, lighter surfaces, trees/shade, & AC in classrooms/buses



Shade can make the air feel up to 10 degrees cooler

Communicate school heat wave procedures to parents and community



Work with officials to include schools in heat emergency plans & make sure emergency protocols are known to all staff



# Avoid Heat Illness at Work

1

## Hydrate regularly

Drink 4 cups of water per hour



2

## Hydration checks

Clear urine suggests good hydration; dark urine indicates dehydration.



3

## Take care of yourself

- **Listen to Your Body:** Take breaks if experiencing dizziness, fatigue, or overheating.
- **Appropriate Clothing:** Opt for breathable, light-colored clothing and hats



4

## Collective monitoring

- **Buddy System:** Pair workers together to monitor each other's condition
- **Emergency Training:** Train workers on recognizing heat illness symptoms and emergency response procedures.



5

## Community Advocacy

1. Gather contact information from all workers so workers can strategize without management
2. Have safety meetings and write down your demands for a safe work environment
3. Share demands with employer



**PSR LA**  
Physicians for Social Responsibility Los Angeles

**OXY** Occidental College



**USC**  
Center for Children's Environmental Health



**EJRL**  
ENVIRONMENTAL JUSTICE RESEARCH LAB



Environmental Health Centers

Infographic: Jennifer Ahumada, Zainab Hasan USC  
NIH (2P30ES007048, ACE-EH 6922-06-CH-S003, and 5P50MD015705)

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# Heat Waves in the Community

## Map Out Your Neighborhood



Identify cool spots in your neighborhood - cooling centers, recreation centers, shopping malls, hydration stations, pools/bodies of water, shaded areas, and green spaces. Make a map with your neighbors and share it with the community!

## Support Your Neighbors

Check-in with your neighbors, especially vulnerable groups such as the elderly, pregnant people, and children. Invite neighbors to your home if you have A/C, make sure people have water, hang out at a cooling center or pool together!



## Coordinate with Local Organizations



Working with local organizations is important to develop policies that protect your community. Reach out to local environmental groups, tenant unions, and community centers. Build a network in your neighborhood for advocacy!

## Community Health Workers

Community health workers (CHWs) play an important role in your neighborhood. They help educate and support people in heat events. Reach out to local organizations to learn more and check out the LA County Promotores Training Program!



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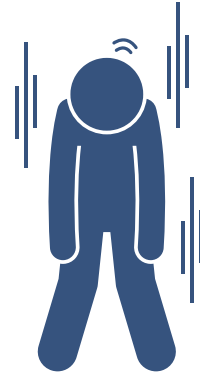
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# Early Signs of Heat Stress

**1**  
**Thirst**



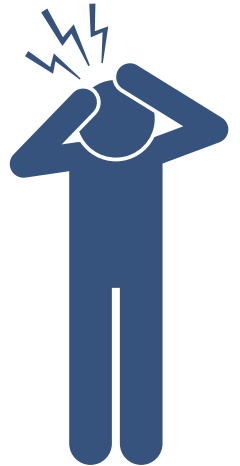
**2**  
**Fatigue**



**3**  
**Nausea**



**4**  
**Headaches**



**5**  
**Dizziness**



**6** **Muscle Aches**



**7** **Excessive Sweating**

