



# Extreme Heat Resource Sheet



This document contains hyperlinks to online and downloadable resources. If you discover any broken links, please contact the authors at [climateandhealth@sfdph.org](mailto:climateandhealth@sfdph.org).



This resource sheet is intended to be a living document. If there are additional services or resources you think should be included, please contact the authors at [climateandhealth@sfdph.org](mailto:climateandhealth@sfdph.org).

## Contents

### Programs and Services

Emergency Services .....	2
Information Services .....	2
Other Local and National Preparedness and Resilience Services .....	3

### Online and Downloadable Resources

Resource Type Glossary .....	4
Resources to understand connection between climate change and public health .....	5
Resources to understand the lifecycle of extreme heat events .....	6
Resources to understand and identify the health impacts of extreme heat .....	7
Resources to identify populations vulnerable to extreme heat .....	8
Resources to develop an extreme heat preparedness plan .....	8
Resources to stay safe during extreme heat events .....	9
Resources to ensure medicine safety during extreme heat event .....	10
Resources to communicate climate preparedness .....	11
Resources to better collect extreme heat health data .....	11



# Programs and Services

## EMERGENCY SERVICES

### 911

**Description:** 9-1-1 is the City emergency hotline for Police, Fire, and Ambulance services.

**Contact Information:**

Phone: 9-1-1

## Programs and Services

## INFORMATION SERVICES

### 311

3-1-1 is the City non-emergency hotline for San Francisco residents, visitors, and businesses seeking general information or to make service requests.

**Contact Information:**

Phone: 3-1-1

Website: <https://sf311.org/>

### SF72

SF72 is operated by the San Francisco Department of Emergency Management and acts as the City's emergency information portal. This site contains guidance on how to develop an emergency preparedness plan, where to go for emergency updates, and how to connect to the City's emergency resources.

**Contact Information:**

Website: [www.sf72.org](http://www.sf72.org)

Twitter: @SF72org, @SF\_emergency

### AlertSF Text Service

AlertSF is a text-based notification system for San Francisco's residents and visitors. AlertSF will send text alerts and information before, during, and after emergencies to registered wireless devices or email accounts.

**Contact Information:**

Patients should be encouraged to sign up for AlertSF at: <https://member.everbridge.net/index/453003085612609#/login>

Patients can also sign up for Alert SF by texting 'AlertSF' to 888-777

## OSHA-NIOSH Heat Safety Tool App

The OSHA-NIOSH Heat Safety tool app combines real-time heat index and hourly forecasts, as well as occupational safety and health recommendations.

**Contact Information:**

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



## Programs and Services

# OTHER LOCAL AND NATIONAL PREPAREDNESS AND RESILIENCE SERVICES

### San Francisco Department of Aging and Adult Services

The San Francisco Department of Aging and Adult Services coordinates services for older adults, veterans, people with disabilities, and their families to maximize safety, health, and independence. The Department of Aging and Adult Services helps clients access services and benefits, care and support (including in home supportive services) and senior and activity centers.

**Contact Information:**

Phone: (415) 557-5000

Website: <https://www.sfhsa.org/about/departments/department-aging-and-adult-services-daas>

### San Francisco Mayor's Office on Disability

The Mayor's Office on Disability (MOD) ensures that every program, service, benefit, activity, and facility operated or funded by the City and County of San Francisco is fully accessible to, and usable by, people with disabilities.

**Contact Information:**

Phone: (415) 554-6789

Website: <https://sfgov.org/mod/>

### Neighborhood Empowerment Network (NEN)

The Neighborhood Empowerment Network is an alliance of residents, neighborhood and merchant associations, nonprofits, faith-based organizations, foundations, and academic institutions that work collectively to support communities as they achieve resilience. The NEN has established an extreme heat hub.

**Contact Information:**

Phone: (415) 554-7114

Website: <http://www.empowersf.org>

### Low Income Home Energy Assistance Program (LiHEAP)

LiHEAP is a federally funded program overseen by the California Department of Community Services and Development that can help with residential utility bill payment, emergency assistance during energy-related crises, and home weatherization. San Francisco residents may apply for utility payment assistance and energy efficiency services with Central Coast Energy Services. Central Coast Energy Services is providing LiHEAP services on an interim basis until a permanent provider is identified.

**Contact Information:**

Utility Payment Assistance:  
(415) 749-5600

Emergency Services: (415) 749-5600

Energy Efficiency & Weatherization  
Services: (415) 749-5600

Application: <https://www.caliheapapply.com>

### Low Income Weatherization Program (LiWP)

For low income patients in single family or mobile homes, LiWP will help homeowners and renters lower their monthly utility bills. This program is funded by the California Climate Investments Initiative. The local administrator for LiWP is Build It Green.

**Contact Information:**

Phone (Build it Green): 833-609-5190

Website: <https://betterhomeliwp.org/>



# Online and Downloadable Resources

## RESOURCE TYPE GLOSSARY



### Issue Summary Document

Issue Summary Documents provide a high-level, comprehensive overview of the particular issue. An Issue Summary Document is as an informational resource to facilitate the development of informed resilience and preparedness strategies.



### Outreach and Engagement

Outreach and Engagement materials are short documents that graphically and concisely convey information for the purpose of educating patients. These resources include posters, infographics, and other media.



### Guidance Document

Guidance Documents are explanatory manuals to instruct users how to implement resilience and preparedness strategies. These resources include checklists and toolkits.



### News Article

News Articles are resources that summarize current events and synthesize relevant research.



### Research

Research resources include academic journals, City-developed plans and reports, and other evidenced-based documents.



## Online and Downloadable Resources

**RESOURCES TO UNDERSTAND CONNECTION BETWEEN CLIMATE CHANGE AND PUBLIC HEALTH**

Issue Summary Document, PDF

**Center for Climate Change and Public Health, Rainfall & Storms, Climate Change and Health****Audience:** Clinicians

This Center for Climate Change and Public Health three-page issue summary document provides information on: 1) how climate change will increase extreme precipitation events, 2) the health impacts of flooding and extreme storms, 3) populations most vulnerable to extreme storm events and, 4) best practices for clinicians.

**Hyperlink:**

<http://climatehealthconnect.org/wp-content/uploads/2016/09/ExtremeHeat.pdf>



Research

**U.S. Global Change Research Program, 2018 Climate and Health Assessment: Human Health****Audience:** Clinicians, Patients

The 2018 National Climate Assessment chapter assesses how climate change will modify health outcomes, identifies vulnerable populations, and inventories adaptation and mitigation strategies to reduce exposure.

**Hyperlink:**

<https://nca2018.globalchange.gov/chapter/14/>



Research

**SFDPH Climate and Health Program. Temperature and Health Report****Audience:** Clinicians

The SFDPH Climate and Health Program 'Temperature and Health Report' examines the relationship between extreme heat and hospital admissions.

**Hyperlink:**

<https://sfclimatehealth.org/wp-content/uploads/2018/12/Temperature-Report-131125.pdf>



Issue Summary Document

**BARHII, Climate Change Quick Guides****Audience:** Clinicians, Patients

These five short guides explore public health as an equity issue and examine the environmental and health co-benefits of climate change action.

**Hyperlink:**

<http://barhii.org/resources/climate-change-quick-guides>



Outreach and Engagement

**Center for Climate Change and Health, Climate and Health Posters****Audience:** Patients

These 18 x 24 posters were developed by the Center for Climate Change and Health to help make the connections between climate change and public health. Relevant posters include 'Climate Change, Asthma, & You'.

**Hyperlink:**

<https://nca2018.globalchange.gov/chapter/13/>



Issue Summary Document, PDF

**CDC and APHA, Extreme Heat Can Impact Our Health In Many Ways****Audience:** Clinicians, Patients

This CDC/APHA two-page issue summary document connects climate change to public health to extreme heat, and provides best practices for residents to prepare for extreme heat events.

**Hyperlink:**

[https://www.cdc.gov/climateandhealth/pubs/EXTREME-HEAT-Final\\_508.pdf](https://www.cdc.gov/climateandhealth/pubs/EXTREME-HEAT-Final_508.pdf)



News Article

**KQED, Extreme Heat Killed 14 People In the Bay Area Last Year. 11 Takeaways From Our Investigation****Audience:** Clinicians, Patients

This KQED news article is an installment of the 'Investigating Heat' series focusing on extreme heat and San Francisco. This article identifies ten main themes of the investigation.

**Hyperlink:**

<https://www.kqed.org/science/1932903/extreme-heat-killed-14-people-in-the-bay-area-last-year-10-takeaways-from-our-investigation>



## Online and Downloadable Resources

**RESOURCES TO UNDERSTAND THE LIFECYCLE OF EXTREME HEAT EVENTS**

Research

**KQED, How Hot Was It In California Homes Last Summer? Really Hot. Here's the Data.****Audience:** Clinicians, Patients

This installment of the KQED “Investigating Heat” series synthesizes research from Arizona State University that placed heat sensors in San Francisco homes to understand the impact of extreme heat inside homes vs. the impact of extreme heat outside homes. The results showed that it is often warmer inside the home than outside the home during extreme weather events.

**Hyperlink:**

<https://www.kqed.org/science/1933708/how-hot-was-it-in-california-homes-last-summer-really-hot-heres-the-data>



Research

**Adapt NY, Harlem Heat Study****Audience:** Clinicians, Patients

AdaptNY’s 2016 Harlem Heat Study used data sensors to measure the indoor air temperatures in apartments in the Harlem neighborhood of New York City. The study was able to show that indoor temperatures warm and cool slower than outdoor temperatures, which may extend extreme heat events for residents in buildings without passive cooling or air conditioning.

**Hyperlink:**

<https://www.adaptny.org/2016/10/25/harlem-sensor-data-reveals-dangerous-indoor-heat-risk/>



Research, PDF

**Predicting Indoor Heat Exposure****Audience:** Clinicians

This article from the June 2014 issue of the journal Science in the Total Environment uses measurements from 285 New York City homes to study the relationship between outdoor and indoor heat.

**Hyperlink:**

<http://www.theurbanclimatologist.com/uploads/4/4/2/5/44250401/quinnetal2014indoorheatexposure.pdf>



## Online and Downloadable Resources

# RESOURCES TO UNDERSTAND AND IDENTIFY THE HEALTH IMPACTS OF EXTREME HEAT



### Guidance Document

## Arizona Department of Health Services, Extreme Heat Parent/Caregiver Information

**Audience:** Clinicians, Patients

This handout was designed by the CDC to help caregivers recognize the symptoms and treatments of heat-related illnesses.

**Hyperlink:**

[https://www.cdc.gov/nceh/hsb/extreme/Heat\\_Illness/Parent\\_Caregiver%20Information%20.pdf](https://www.cdc.gov/nceh/hsb/extreme/Heat_Illness/Parent_Caregiver%20Information%20.pdf)



### Outreach and Engagement

## CDC, Warning Signs and Symptoms of Heat Related Illness

**Audience:** Patients

This infographic helps patients diagnose the symptoms of heat-related illness so they can take appropriate steps to protect themselves during extreme heat events.

**Hyperlink:**

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



### Issue Summary

## Climate Nexus, How Extreme Heat and Heatwaves Impact Public Health

**Audience:** Clinicians, Patients

This issue summary document provides information about specific health impacts of extreme heat events, and includes links to research documents and infographics.

**Hyperlink:**

<https://climatenexus.org/climate-issues/health/extreme-heat/>



### Issue Summary

## California Environmental Health Tracking Program, Heat and How it Affects Our Health

**Audience:** Clinicians, Patients

This state guidance document identifies how extreme heat to increases morbidity and mortality and overviews best practices and recommendations for short-term and long-term prevention strategies.

**Hyperlink:**

[http://cehtp.org/faq/climate\\_change/heat\\_and\\_how\\_it\\_affects\\_our\\_health#faq\\_0](http://cehtp.org/faq/climate_change/heat_and_how_it_affects_our_health#faq_0)



Online and Downloadable Resources

**RESOURCES TO IDENTIFY POPULATIONS VULNERABLE TO EXTREME HEAT**



Research

**SFDPH Climate and Health Program, Understanding the Risk: An Assessment of San Francisco’s Vulnerability to Extreme Heat Events**

**Audience:** Clinicians, Patients

This 2013 Vulnerability Assessment uses exposure data, vulnerable population data, health data, and infrastructure data to assess which San Francisco neighborhoods are most vulnerable to the health impacts of extreme heat.

**Hyperlink:**

<https://sfclimatehealth.org/wp-content/uploads/2018/12/climate-and-health-report-130628.pdf>



Outreach and Engagement

**SFDPH Climate and Health Program, Heat Vulnerability Map Atlas**

**Audience:** Clinicians, Patients

This collection of maps shows the spatial distribution of populations vulnerable to the health impacts of extreme heat within San Francisco.

**Hyperlink:**

<https://sfclimatehealth.org/wp-admin/post.php?post=1856&action=edit>

Online and Downloadable Resources

**RESOURCES TO DEVELOP AN EXTREME HEAT PREPAREDNESS PLAN**



Guidance Document

**SF72 Emergency Plan Checklists**

**Audience:** Patients

From the San Francisco Department of Emergency Management, this site links to downloadable multilingual emergency planning checklists.

**Hyperlink:**

<https://www.sf72.org/plan>



Outreach and Engagement

**SFDPH Climate and Health Program, Extreme Heat Preparedness Train the Trainer Presentation**

**Audience:** Patients

This train-the-trainer presentation examines how San Franciscans can prepare for extreme heat events.

**Hyperlink:**

<https://sfclimatehealth.org/wp-content/uploads/2018/12/Presentation-130903.pdf>



Guidance Document

**Ready.Gov Extreme Heat Preparedness Resource**

**Audience:** Patients

This online resource compiles information about how to build an emergency kit, make a family communications plan, and stay safe during extreme heat events.

**Hyperlink:**

<https://www.ready.gov/heat>





## Online and Downloadable Resources

**RESOURCES TO STAY SAFE DURING EXTREME HEAT EVENTS**

## Guidance Document

**SFDPH Climate and Health Program, Multilingual 'Stay Safe in the Heat' resources****Audience:** Patients

These multilingual resources provide information on best practices to stay safe during extreme heat, including how to assist others, diagnose heat-related illnesses, and how to identify vulnerable populations.

**Hyperlink:**

[https://sfclimatehealth.org/wp-content/uploads/2018/12/DPH\\_Heat\\_Waves\\_Multilingual.pdf](https://sfclimatehealth.org/wp-content/uploads/2018/12/DPH_Heat_Waves_Multilingual.pdf)



## Guidance Document

**Arizona Department of Health Services, "Heat Safety- Older Adult Toolkit"****Audience:** Clinicians, Patients

This Arizona Department of Health Services online toolkit compiles resources to prepare older adults for the health impacts of extreme heat. The toolkit includes information on heat vulnerability, impact on prescription medicines, and information for caregivers.

**Hyperlink:**

<http://www.azdhs.gov/preparedness/epidemiology-disease-control/extreme-weather/index.php#heat-elderly>



## Guidance Documents

**CDC, "Heat Stress in Older Adults Information"****Audience:** Clinicians, Patients

This Center for Disease Control resource outlines why older adults are particularly vulnerable to heat stress, and best practices to stay safe during extreme heat events.

**Hyperlink:**

<https://www.cdc.gov/disasters/extremeheat/older-adults-heat.html>



## Outreach and Engagement

**CDC, Extreme Heat Social Media Graphics****Audience:** Patients

This Center for Disease Control resource compiles podcasts, public service announcements, informational videos, social media graphics, and infographics to stay safe during extreme heat events.

**Hyperlink:**

[https://www.cdc.gov/disasters/extremeheat/social\\_media.html](https://www.cdc.gov/disasters/extremeheat/social_media.html)



## Outreach and Engagement, PDF

**Arizona Department of Health Services, Surviving Arizona's Heat****Audience:** Patients

These brochures were developed by the Arizona Department of Health Services. Although they contain some Arizona-specific information, the brochures also have a lot of information about the different health impacts of extreme heat, which populations are most vulnerable to extreme heat, how to protect yourself from extreme heat, and which medications are dangerous during extreme heat events.

**Hyperlink:**

English: <http://www.yumacountyaz.gov/home/showdocument?id=9615>  
Spanish: <http://www.yumacountyaz.gov/home/showdocument?id=9614>



## Outreach and Engagement

**CDC, Managing Diabetes in the Heat****Audience:** Patients

This web resource for people who have type 1 or type 2 diabetes provides information about the interaction between heat, humidity, diabetes, and medication, and best practices to stay safe.

**Hyperlink:**

<https://www.cdc.gov/features/diabetesheattravel/index.html>



## Online and Downloadable Resources

**RESOURCES TO ENSURE MEDICINE SAFETY DURING EXTREME HEAT EVENT**

## Research

**National Collaborating Centre for Environmental Health: Drugs and Heat**

**Audience:** Clinicians

This resource compiles epidemiological data on the relationships between different drugs and heat-related illness.

**Hyperlink:**

<http://www.nceeh.ca/content/drugs>



## Research

**Journal of Clinical Pharmacy and Therapeutics ‘Medicines can affect thermoregulation and accentuate the risk of dehydration and heat-related illness during hot weather’**

**Audience:** Clinicians

This academic resource identifies medicines that can increase the risk of dehydration and heat-related illness. This resource also identifies combinations of medicine (i.e. diuretics and antipsychotics that reduce thirst sensation) that may become dangerous in extreme temperatures.

**Hyperlink:**

<https://onlinelibrary.wiley.com/doi/full/10.1111/jcpt.12294>



## Guidance Document

**Texas Department of State Health Services, "Warning: Antipsychotics, Lithium, and Summer Heat"**

**Audience:** Clinicians, Patients

This public-facing Texas Department of State Health Services information site identifies how extreme heat increases health risks associated with antipsychotics and lithium.

**Hyperlink:**

<https://www.dshs.texas.gov/mhlsa/bhmd/heatwarning/>



## Outreach and Engagement, PDF

**Polk County Iowa, Keep Your Medications Away from the Summer Heat!**

**Audience:** Clinicians, Patients

This PDF brochure from Polk County, Iowa provides information and best practices for patients to keep medicines safe during extreme temperatures.

**Hyperlink:**

<https://www.polkcountyiowa.gov/media/189984/medication-handout.pdf>



## Online and Downloadable Resources

**RESOURCES TO COMMUNICATE CLIMATE PREPAREDNESS**

Issue Summary Document

**Center for Climate Change and Health, A Physician's Guide to Climate Change, Health, and Equity****Audience:** Clinicians

This comprehensive resource explores the connection between climate change and public health, and opportunities for physicians to strengthen their voice as climate advocates.

**Hyperlink:**

<http://climatehealthconnect.org/resources/physicians-guide-climate-change-health-equity/>



Guidance Document, PDF

**Let's Talk Health and Climate: Communication Guidance for Health Professionals****Audience:** Clinicians

This guidance document, developed by ecoAmerica and Climate for Health, synthesizes academic research to provide message tested phrases and talking points to advance climate health communications.

**Hyperlink:**

[https://ecoamerica.org/wp-content/uploads/2017/03/3\\_letstalk\\_health\\_and\\_climate.pdf](https://ecoamerica.org/wp-content/uploads/2017/03/3_letstalk_health_and_climate.pdf)



Issue Summary Document

**Health Canada, "Communicating the Health Risks of Extreme Heat Events: Toolkits for Public Health and Emergency Management Officials"****Audience:** Clinicians

This long guidance document, prepared by the Canadian Department of Health, examines the connection between extreme heat and public health, and how to communicate the health risks including heat-health messaging and development of communication products.

**Hyperlink:**

[http://www.hc-sc.gc.ca/ewh-semt/alt\\_formats/hecs-sesc/pdf/pubs/climat/heat-chaleur/heat-chaleur-eng.pdf](http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/climat/heat-chaleur/heat-chaleur-eng.pdf)

## Online and Downloadable Resources

**RESOURCES TO BETTER COLLECT EXTREME HEAT HEALTH DATA**

Online Guidance

**California Environmental Health Tracking Program: Heat-Related Illness and Death Data****Audience:** Clinicians

This site provides data and information about heat morbidity and mortality in California. Information includes heat illness classification, data sources, statistical concepts, and data limitations.

**Hyperlink:**

[http://www.cehtp.org/faq/climate\\_change/heatrelated\\_illness\\_and\\_death\\_data\\_methods\\_and\\_limitations](http://www.cehtp.org/faq/climate_change/heatrelated_illness_and_death_data_methods_and_limitations)