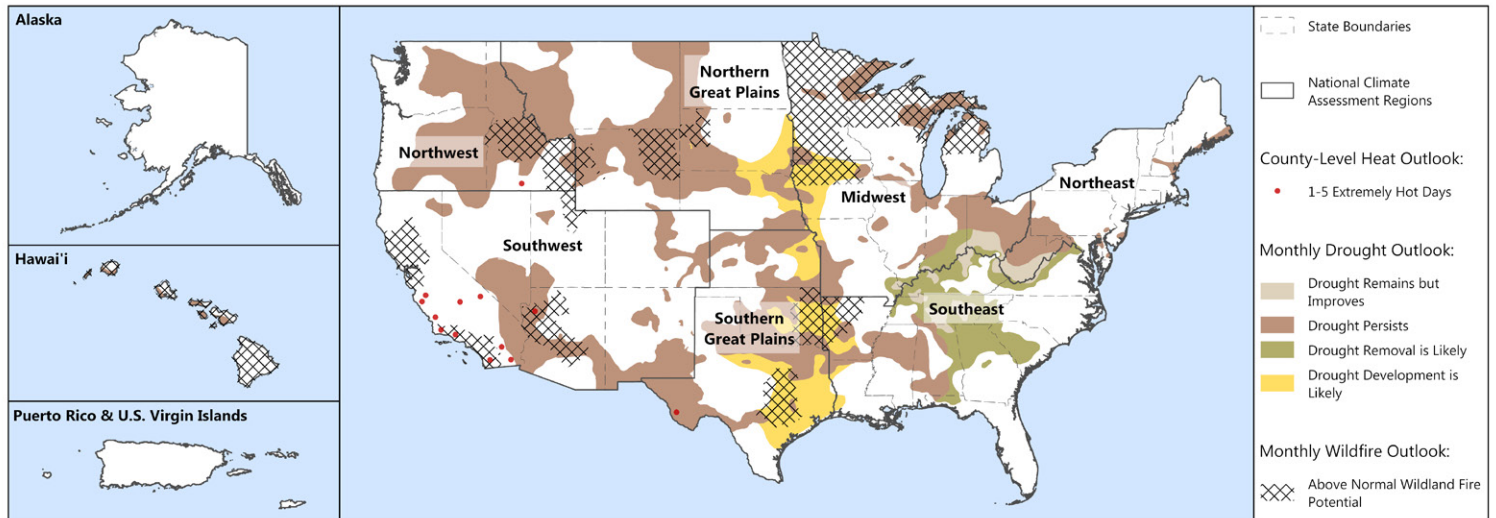


Highlights for this edition:

- Find your area’s forecasted climate hazards for October including extreme heat, drought, wildfire, and hurricanes.
- Learn about health impacts & populations at risk for health harms from these climate hazards.
- Discover resources to help protect your health, including a special feature on climate hazards on the rise in the Fall season.

October Regional Climate Hazard Forecasts:



Southwest: 10 counties in CA and one county in AZ are expected to have one or more extremely hot days*. Drought persistence is forecast for portions of CA, NV, AZ, CO, NM, and UT. Significant wildfire** potential is projected to be above normal in CA for the Sacramento Valley westward as well as for the south coast plus in northwest AZ and northwest UT.

Southern Great Plains: One county in TX is expected to have one or more extremely hot days. Drought persistence is forecast for much of KS and OK, and portions of northern and far western TX. Drought development is forecast for portions of eastern KS, OK, and TX. Above normal significant wildfire potential is forecast for portions of central TX and eastern OK.

Southeast: Drought persistence is forecast for portions of AR, northern LA, MS, AL, and small areas of southern TN, the FL panhandle, and northern VA. Drought improvement and removal is forecast across much of TN and KY, eastern AL, northern GA, and western SC, NC, and VA. Above normal significant wildfire potential is forecast for western AR. The Atlantic basin is highly likely to have an above-normal hurricane season.

Northern Great Plains: Drought persistence is forecast across much of MT, WY, and western NE, and western ND, and SD with additional development forecast for northeastern NE into southeastern SD. Above normal significant wildfire potential is forecast for portions of western SD and northeast plus part of western WY.

Hawai'i: Kauai, Oahu, and Maui are most likely to experience above-normal temperatures. Drought persistence is forecast across central and western HI. HI's significant fire potential is above normal across the leeward areas. The central Pacific is most likely to experience a below-normal hurricane season.

Midwest: Drought persistence is forecast for much of OH and scattered portions of MN, WI, MI, IA, MO, IL, and IN, with additional drought development forecast across much of western and northern IA, northwestern MO, and southwestern MN. Drought improvement and removal are forecast for small portions of southern MO, IL, IN, and OH. Above normal significant wildfire potential is forecast for most of MN into northern IA, northern WI, and northern MI.

Northwest: One county in ID is expected to have one or more extremely hot days. Drought persistence is forecast for much of WA, OR, and ID. Above normal significant wildfire potential is forecast for central through southeastern ID.

Heat Drought Wildfire Hurricane

Check out additional forecasts on our [webpage](#).

*An “extremely hot day” is defined by having an expected temperature above the 95th percentile value of the historical temperature distribution for the month and county. For more information, check out the Centers for Disease Control and Prevention’s (CDC’s) [National Environmental Public Health Tracking Network](#) documentation.

**Smoke from wildfires can impact health hundreds of miles from the site of the fire.

Heat forecasts are derived from [CDC’s Heat & Health Tracker](#); wildfire forecasts from the National Interagency Coordination Center’s [National Outlook](#); drought forecasts from the National Oceanic and Atmospheric Administration’s (NOAA’s) [Official Drought Outlook](#), and hurricane forecasts from NOAA’s [2024 Hurricane Season Outlook](#).

Discover your county's forecasted climate hazards this month:

1. Navigate to the [All Hazards map](#) from the Climate & Health Outlook Portal and click "Okay".
2. Zoom in on your county, either directly or by clicking the search icon on the top left, typing in your location, and hitting "Enter".
3. Click on your county on the map and a box will pop up with climate hazards for the current month and relevant risk factors.

Fall Hazards on the Rise with Climate Change

While summer is the peak for extreme heat, climate change has led to an increase in several hazards in the fall. [Fall temperatures have increased by about 1.6°F](#) on average across the contiguous 48 states compared to the 1901–2000 baseline. An increase of this magnitude has led several areas in the U.S. to experience **extreme heat** days into the fall season. Warmer fall temperatures extend the growing season, which can lead to a more intense fall pollen season for allergy sufferers, as well as extend the active season for mosquitoes and ticks, which can lead to increased transmission of **vector-borne diseases** in the fall. In regions with low precipitation during the summer, drought conditions can worsen during the fall. Fall can also bring increased **wildfire** risk due to dry conditions (i.e., dry vegetation from hot summer weather plus delayed onset of winter rains) and strong winds (e.g., the Santa Ana and Diablo winds in California and the Chinook winds in the Rockies). The Atlantic **hurricane** season also peaks in the fall, and warmer ocean temperatures can lead to more intense and frequent storms.

Local conditions can be monitored using:

- the [CDC-NWS HeatRisk Forecast Tool](#) for a forecast of when temperatures are expected to reach potentially harmful levels for health in the next seven days;
- the new edition of the [EPA's Fire & Smoke Map](#) for the current air quality and whether it is stable, improving, or getting worse; and
- [NOAA's U.S. Drought Monitor](#) for the location and intensity of drought across the country.

You can find recommendations for protecting health from these hazards throughout this newsletter. You can also follow short-term hurricane forecasts at [NOAA's Seven-Day Graphical Tropical Weather Outlook](#) and find recommendations to protect your health on [our website](#). Continue [preventing mosquito and tick bites](#) by wearing protective clothing and using [EPA-registered insect repellents](#). If you have allergies and/or asthma, check your local pollen report from the American Academy of Allergy, Asthma & Immunology's [National Allergy Bureau's map](#) or weather app, and learn how to minimize pollen exposure from the CDC's [Pollen and Your Health site](#).

Preventing and Removing Mold After a Hurricane



Photo: [CDC](#)

with weakened immune systems and children away from the clean-up. Scrub surfaces with water and detergent, taking care not to mix cleaners. Toss anything that cannot be cleaned and dried, taking photos of discarded items for filing insurance claims. Open doors and windows, and when electricity is safe to use, use fans and dehumidifiers to remove moisture.

The Centers for Disease Control and Prevention (CDC) provides additional guidance at [Reentering Your Flooded Home](#) and [Homeowner's and Renter's Guide to Mold Cleanup After Disasters](#).

If your home has been flooded by a hurricane or other natural disaster, excess moisture and standing water can lead to the growth of mold. Mold could be harmful to your family's health, leading to a stuffy nose, sore throat, coughing, wheezing, burning eyes, or a skin rash. People with asthma, allergies, other breathing conditions, or immune suppression may be more sensitive to mold.

When returning to a home that has been flooded, clean up and dry out the building as quickly as possible. Protect yourself while cleaning by using gloves, a NIOSH-approved N95 mask, and goggles. Keep people

Extreme Heat



Don't Leave Medications in a Hot Car






With lingering summer heat, it's important to remember that [high temperatures can have harmful effects on medications](#). Heat can degrade the active ingredients in medications, making them less effective when you need them most.

While asthma inhalers and epinephrine auto-injectors are often carried with you when you are away from home, they should not be stored in a hot car, even for short periods of time. Asthma inhalers contain aerosolized medicine that is sensitive to heat. If left in a hot car, the pressure inside the inhaler can increase. In fact, inhalers can explode at high temperatures that can be reached in a closed car on a hot day. In addition, heat can reduce the potency of these inhaled asthma medications. Epinephrine auto-injectors must be stored at room temperature, between 68°F and 77°F, to maintain their potency. When exposed to temperatures above 86°F for prolonged periods, the epinephrine can degrade, compromising its efficacy in treating life-threatening allergic reactions.

Always store your medications in a cool, dry place, avoid leaving them in the car, and consider carrying them in insulated bags when traveling with them in warmer conditions. The U.S. Food & Drug Administration provides additional recommendations on the [use of medicines affected by heat](#) and other climate hazards.

Heat Affects Health in Many Ways

Warmer temperatures increase the risk for a diverse range of health risks. For example:

-  An increased risk of **heart disease hospitalization**.
-  **Heat exhaustion**, which can lead to **heat stroke** that, if not treated, can cause critical illness, brain injury, and even death.
-  Dehydration, which can lead to **kidney injury** and blood pressure problems.
-  Mental health and substance use risks, including **loss of sleep** and **slowing of brain cognition**, and heightened risk of **increased acute psychiatric and substance use symptoms** among people with chronic behavioral health conditions.
-  Worsening **asthma** and **chronic obstructive pulmonary disease (COPD)** as heat increases the production of ground-level ozone.

People at Elevated Health Risk From Extreme Heat Exposure

According to [HEAT.gov](#) and [CDC](#) include those who:

- Have increased exposure (e.g., are experiencing homelessness; are emergency responders; are athletes; and/or work outdoors, or indoors with insufficient cooling);
- Have increased biologic sensitivity (e.g., are under age 5; are age 65 or over; are pregnant; and/or have chronic health conditions such as a mental illness, diabetes, or a cardiovascular condition); and/or
- Face high socioeconomic burden and/or barriers to accessing cooling or healthcare (e.g., live in a low income community and/or have one or more disabilities).

Check out your heat forecast for October along with top risk factors of concern in your county with our [portal](#) and [learn how to protect people at elevated risk](#).

Extreme Heat Resources

- Read the [National Heat Strategy for 2024-2030](#), which aims to promote proactive coordination related to heat planning, response, and resilience.
- Visit [HEAT.gov](#), the premier source of heat and health information for the nation.
- Explore the [Heat and Health Index](#), the first national tool to provide ZIP code-level heat-related illness and community characteristics data to measure vulnerability to heat.
- Discover recent [actions taken to protect workers and communities from extreme weather](#).

For more, please review our 2-pager with curated [HHS Resources on Heat and Health](#) in 2024.

Drought

Drought Affects Health in Many Ways

Drought increases the risk for a diverse range of health outcomes. For example:



Low crop yields can result in rising food prices and shortages, potentially leading to **malnutrition**.



Dry soil can increase the number of particulates such as **dust and pollen** that are suspended in the air, which can irritate the respiratory system.



If there isn't enough water to flow, waterways may become stagnant breeding grounds for **disease vectors** such as mosquitoes.



Drought's complex economic consequences can increase **mood disorders, domestic violence, and suicide**.

People at Elevated Health Risk From Drought Exposure

According to [NOAA](#) & [CDC](#), include those who:

- Have increased exposure to dust (e.g., are experiencing homelessness, work outdoors, or live/work in agricultural communities);
- Rely on water from private wells or small or poorly maintained municipal systems, the quality of which is more susceptible to environmental changes; and/or
- Have increased biologic sensitivity (e.g. are under age 5, are age 65 or over, are pregnant, have chronic health conditions, and/or have special needs in the event of a public health emergency).

Check out your drought forecast for October, along with top risk factors of concern in your county with our [Climate and Health Outlook Portal](#) and [learn more about health impacts and how to prevent them](#).

Resources to Reduce Health Risks Associated With Drought

- Learn about the health implications of drought and how to prepare from the [CDC Drought and Health site](#) and [Ready.gov Drought site](#).
- Call or text 1-800-985-5990 to get help and support for any distress that you or someone you care about may be feeling related to any disaster. This SAMHSA [Helpline and Text Service](#) is available 24/7, free, and staffed by trained crisis counselors.

Wildfire

People at Elevated Health Risk From Wildfire Smoke Exposure

According to [EPA](#) include those who:

- Have increased biologic sensitivity (e.g., are under age 5, are age 65 or over, are pregnant, and/or have chronic health conditions such as asthma or another lung disease or a cardiovascular disease); and/or
- Face economic, social, environmental, and/or other burdens that may limit their ability to reduce exposure (e.g., identify as a racial or ethnic minority, have low-income, have one or more disabilities, and/or work outdoors).

Check out your wildfire forecast for October, along with top risk factors of concern in your county with our [Climate and Health Outlook Portal](#) and [learn how to protect people at elevated risk](#).

Resources to Reduce Health Risks Associated With Wildfire

- Learn about how to prepare for wildfires, stay safe during a fire, and return home after a fire with resources from [FEMA's Ready.gov](#), [CDC](#), and [EPA](#).
- Download the [FEMA App](#) to receive real-time weather and emergency alerts from the National Weather Service and help you find a nearby shelter in case of evacuation.
- Check out [EPA & CDC's Wildfire Smoke and Your Patients' Health course](#) for actions to help patients reduce exposure.
- Discover specific recommendations for [older adults](#), [people experiencing homelessness](#), [people with access and functional needs](#), and [people with disabilities](#).

Wildfires Affect Health in Many Ways

Wildland fire increases the risk for a diverse range of health outcomes from both the fire itself and smoke. For example:



Due to the nature of their work, firefighters are at risk of developing severe heat-related illness (such as **heat stroke**) and rhabdomyolysis (**muscle breakdown**).



Wildfire can cause **burns** through contact with flames and hot surfaces.



Wildfire smoke can lead to disorders including **reduced lung function, bronchitis**, exacerbation of **asthma**, and cardiovascular effects like **heart failure**.



For pregnant people, smoke exposure may increase the risk of **reduced birth weight** and **preterm birth**.



Wildfire smoke may affect the immune system, potentially leading to increased vulnerability to **lung infections**.



Smoke from wildfires can travel downwind and affect air quality hundreds of miles away from the fire.

THANK YOU to the partners who provide invaluable information, expertise, and data for the Climate and Health Outlook series:

