

Coping With Wildfires and Climate Change Crises



Photo: JPlenio[1]

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Preparing ourselves psychologically for climate crises

In the Bay Area and elsewhere, we are now living in an unprecedented period of extreme unpredictability with climate change, resulting in wildfires and smoke, poor air quality, and extreme temperature changes. These require a **new mindset**—one where we are prepared for these events as much as we can be. This also requires **actual preparation ahead of time** getting the resources we need and to cope well with them, if and when they arrive. Living in the Bay Area, we are used to earthquake preparedness. This entails having an **emergency kit** and **"go-bag"** ready. We don't know when it will happen, but it could happen. We can adopt a similar strategy for other natural disasters. In this section, we address both psychological and practical preparation, and they go hand in hand. Understanding how the risks work, and what we can do, are now part of our ability to be prepared and cultivate a more relaxed mental stance.

The more prepared we are, the less anxiety we will feel before and during the next challenge.

We must realize that for some, a climate event can cause extreme psychological stress, depending on how impacted the person is. The novelty and unpredictability of these events alone make them stressful. With wildfires, there can be a true threat to our lives, to our homes and businesses. Regardless of how close the fires are, there is also the threat to our health, from the smoke, for sensitive people. For people who have been through this before, to have evacuations happen again, can re-trigger post-traumatic stress reactions. Lastly, for people with low income or precarious housing, they may not have the protections that are easy to take for granted—air conditioning, air filters, and homes that are easily sealed up. These are now critical issues that will need to be improved and addressed in our communities together.

When the specific disaster we are coping with has ended, psychological consequences may persist, as well as the fear of recurrence. **It is important to seek support right afterwards, from people who understand what you have experienced—others in similar situations or mental health professionals.**

In 2020, we have already experienced heat waves, rampant fires and evacuations, and smoke, all on top of ongoing sheltering-in-place due to COVID-19. The confluence of events is enough to make anyone feel overwhelmed and naturally ask, "When will this end? What's next? Should I move?" There are no easy answers to these questions. In the short run, we need to focus on our own safety and well-being, and help those around us. We will get through this current crisis, together! This too shall pass.

Dealing with uncertainty requires embracing a "new world" mindset

It is clear we are living in a challenging period ahead. When unpredictable terrible things happen, it violates our expectations. We may feel shocked or victimized. Our natural bias is to think the future is reliable but in reality it has always been unpredictable and now in this era of COVID-19 and climate crises, it is very unpredictable. So we need new coping strategies. Part of resilience today is embracing a new world mindset in three ways:

1. **Expect the unexpected:** Do not assume we know the future—but still work to create the best future. Not knowing what tomorrow or next month will bring is inherently hard for us. We like to plan ahead and feel ease about the future. Unpredictability can create anxiety. It is thus important to notice the moments today, when things are certain, when we feel safe, and let ourselves feel at ease. You might try brief belly breathing or three-part breathing ^[2] at least once a day, taking a brief mindfulness break ^[3], or one of the mindfulness apps

[4].

2. **Control the things we can control:** That includes right now, plans for today, and the near future. When we feel overwhelmed by thoughts about the future, it helps to take things moment by moment, day by day. Having a balanced daily routine with enough self care, sleep, movement, and some socially distanced connection is especially important right now.
3. **Stay positive:** The glass is half full these days, with the amount of COVID-19 restrictions, fear, and climate events we are facing. If we see the glass as half empty we make that true. ?If you think you can, or you think you can?t, it?s true.? Our hopeful attitude and proactive actions are critical to building a better future?we can mitigate climate damage, both in personal actions and in who we elect and influence. If we don?t stay positive, we cannot be part of the solution.

Climate distress and grief

We live in the larger context of a climate crisis that is now here to stay and could get worse. This is an existential and spiritual crisis that many have been dealing with already. But now, seeing the impact of climate change at such a personal level can deepen climate distress, also called eco-anxiety. Climate distress describes negative emotions about climate changes ? there can be a wide range of feelings such as sadness, hopelessness, anger, grief, and loss at various times.

To maintain well being during this era of climate crisis takes extraordinary coping on our part to stay hopeful and do our part so things don not get worse. Our wide range of feelings are normal and fitting, and important to talk and even write about. Remember that feelings are contagious, and hopelessness and pessimism are especially catchy. Climate changes are here, and thus so is climate distress. We can use our negative feelings to motivate us to make changes on a personal level or through activism. There are things we can do locally or globally and many tips about coping with climate distress [5]. It is also helpful to read about positive changes being made and to be part of these changes, such as in Christiana Figueras? book ?The Future We Choose.? [6] Thus a new mindset involves embracing the fact that the world is indeed different ? and in some ways changed forever ? but there are many actions we can take now to prevent worsening and to find new possibilities: This crisis has led to opportunities for societal growth and new ways of constructing our daily lives, businesses, and economy. We have an opportunity to thrive socially and live in better harmony with our ecosystem in ways that we were not on track for!

If you are interested in joining a two-session Zoom class on dealing with climate distress that is being designed and evaluated by UC faculty, please send an email to Elissa Epel at ame.center@ucsf.edu [7].

Protecting your mental health during climate disasters

When we witness natural disasters, even if they are not near our home, we may feel distress or vulnerability. The media shows images and stories of disasters over and over, and this fuels ongoing anxiety and vigilance. As with COVID-19, it is critical to find only reliable sources, to limit the news, and to reach out to others in need. The American Psychological

Association offers the tips below for managing distress related to wildfires [8]:

- Take frequent breaks from watching the news.
- Be kind to yourself and the emotions you may be experiencing.
- Keep your perspective on life positive and focus on the good things around you.
- Find productive ways to help in your community by making donations or volunteering your time [9].
- Recovering from wildfires [10]: Wildfires can be particularly stressful because the factors that influence their strength and direction can change at any moment. It is common for people who have lived through these circumstances to experience strong emotions. This tip sheet from the American Psychological Association lists several good strategies for trying to regain stability in your and your children's lives.

For parents

- National Child Traumatic Stress Network
 - Parent Guidelines for Helping Children Impacted by Wildfires [11]: Lists common reactions parents may see in their children after a wildfire and how to help their children deal with this distress.
 - Wildfires: Tips for Parents on Media Coverage [12]: How to help children understand media coverage while limiting their exposure to distressing images.

When do you need extra support?

- The Substance Abuse and Mental Health Services Administration (SAMHSA) offers lists of warning signs for emotional distress [13] for children and teens, older adults, first responders, and recovery workers who may be at greater risk for emotional distress during this time.
- If you or someone you know shows any signs of emotional distress for two weeks or more, call the Disaster Distress Helpline [14] at **1-800-985-5990** or text **TalkWithUs to 66746** for support and counseling. The Disaster Distress Helpline is a national hotline that provides 24/7, year-round crisis counseling for people who are experiencing emotional distress related to any natural or human-caused disaster. Spanish-speakers should text **"Hablanos" to 66746**. Calls and texts are answered by trained, caring counselors from crisis call centers located throughout the United States.
- In addition, we have put together resources for COVID-19 and pandemic-related distress. If you are experiencing significant distress, there are warm lines and hot lines [15], as well as counseling for UCSF employees [16].

Protecting yourself before, during, and after a wildfire

When wildfires burn near you, smoke can reach your community even if you don't smell it. Wildfire smoke is a mix of gases and fine particles from burning trees and plants, buildings, and other material. Wildfire smoke can make anyone sick, but people with asthma, chronic obstructive pulmonary disease (COPD), or heart disease, as well as children, pregnant women, and responders are particularly at risk. The Centers for Disease Control and Prevention (CDC) has a list of useful resources ^[17] for protecting yourself from wildfire smoke.

Breathing in smoke can affect you right away, causing many symptoms:

- Coughing
- Scratchy or sore throat
- Runny nose
- Irritated sinuses
- Trouble with breathing or wheezing
- Asthma attacks

You might not realize that breathing in smoke can also cause symptoms other than respiratory-related symptoms:

- Headaches
- Tiredness and fatigue
- Chest pain
- Fast heartbeat
- Stinging eyes

These symptoms are common when the air quality is poor, but also suggest you should try to improve your air?do not stay outside except for short periods, get to a building or room with better air (such as a sealed up room with an air purifier). If you are in a vulnerable group, see the special instructions below and consider your options for temporarily relocating to an area with better air quality if possible.

Smoke, air pollution, and our skin

The skin is our largest organ and it is permeable, meaning that some environmental exposures can literally get through our skin. It makes sense to think of ways to protect it during this time of pervasive air pollution. UCSF researcher Thea Mauro and colleagues have shown that applying daily body lotion for a month reduces blood inflammation levels ^[18] in people over 50 years old, reducing it to levels in much younger people. The smoke and pollution mostly enters our blood through the lungs. However, it is possible it also impacts us through skin contact and permeability.

While no studies have been done with smoke, it is logical to use body lotion during this time on top of clean skin. When living in poor air quality, it is also wise to shower daily with gentle soap and wash clothes if you have been outside.

How does smoke affect our health and risk for COVID-19?

We already know that air pollution can lead to inflammation and impair our immune function. Air pollution contains both solid particles and gas particles. Wildfire smoke includes small particles (particulate matter or PM < 2.5 microns) that are easily absorbed into the lungs, leading to oxidative stress and inflammation, especially for those with respiratory issues already. Our first line of defense in the lungs are the cilia, and when they get damaged from health issues or long term exposure to air pollution, we get a positive feedback cycle of inflammation. They are also absorbed into the blood, exacerbating many health conditions, and may even promote susceptibility to COVID-19 [19].

[Video of COVID-19 and wildfire risks](#)



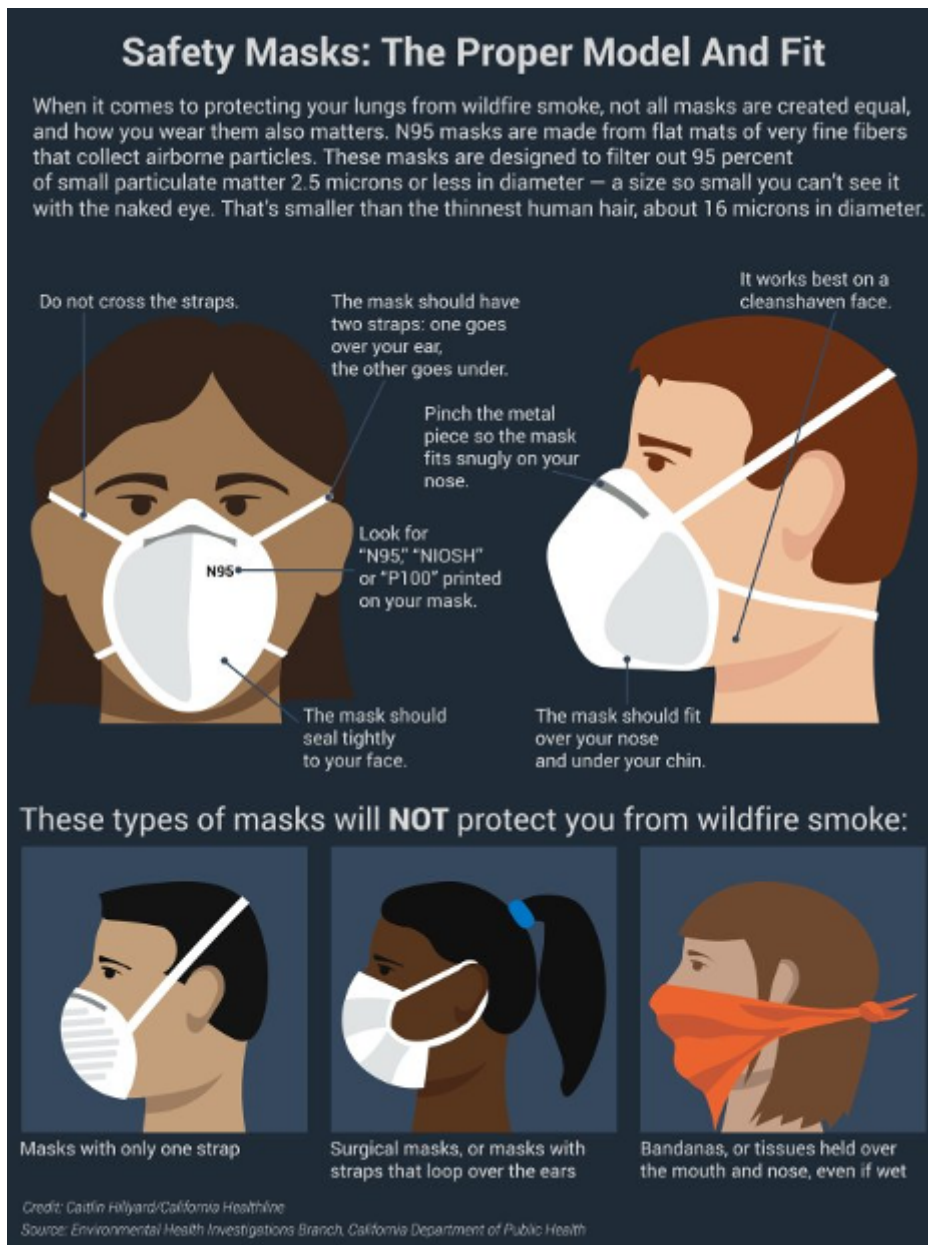
Be ready to protect yourself against smoke and ash before, during, and after a wildfire:

- Prepare for Wildfires [20]: Emergency supplies, evacuation plans, and current conditions
- Actions to Take During Wildfires [21]: How to protect yourself from smoke and what to do during power outages
- Easy steps to take at home to protect yourself from smoke [22]:
 - **Check local air quality reports** by searching for your ZIP code on the CDC's Air Now website [23], which has the most reliable sensors. However, you might also check PurpleAir [24] which uses information from individual's sensors, giving you more geographically sensitive information or the AirCare app [25].
 - **Keep indoor air clean** by keeping all windows closed, especially if you do not have air conditioning. If you do have an air conditioner, make sure to keep the fresh-air intake closed to prevent outdoor smoke from infiltrating inside.
 - **Avoid activities that increase indoor pollution**, such as burning candles, cooking on gas stoves and vacuuming.
 - **Wash your nose out and gargle with clean water.** You can do this five times a day until the smoke subsides.
 - **Take a shower and wash your clothing** after being outside to remove

particulates.

- **N95 respirator masks can be helpful** to protect yourself by filtering out fine particles when it is absolutely necessary to go outside. Due to the COVID-19 pandemic, there is limited stock, and you might get a KN95 mask. See mask fitting guide below. **However, public safety officials recommend that spending as much time indoors is the best way to protect yourself.** Note that a cloth mask, such as those often used to prevent the spread of COVID-19, will not adequately protect lungs from particles found in wildfire smoke.

The CDC also offers a list of what to do after you've been close to a wildfire [26] containing measures to protect yourself from ash and other health hazards.



Resources for vulnerable groups

The CDC offers helpful guides for vulnerable groups:

- Wildfire Smoke and Pregnancy [27]

- Wildfire Smoke and Children [28]
- Wildfire Smoke and Chronic Conditions: Asthma, COPD, and Heart Disease [29]
- Wildfire Resources and Guidance for Health Officials and Professionals [30]

Protecting yourself and vulnerable people from extreme heat

The Climate Psychiatry Alliance (CPA) [31] provides professionals with resources on the mental health effects of climate change. People with mental illness are particularly vulnerable to heat. CPA member and UCSF volunteer clinical professor Robin Cooper, MD, has developed downloadable toolkits to help us deal with extreme heat [32] (for patients, providers, and caregivers).

HEATWAVES CARING FOR YOURSELF

| | |
|---|--|
|  <ul style="list-style-type: none"> • Keep rooms as cool as possible • Use shades to cover windows; maintain cross air ventilation. • Avoid fans if rooms over 90-95° • Find alternative shelter in cooling centers if needed • Do not leave children or pets in cars |  <p>STAY HYDRATED:</p> <ul style="list-style-type: none"> • Drink lots of water to stay hydrated • Avoid alcohol or sugary drinks |
|  <p>Know where to find shelter:</p> <ul style="list-style-type: none"> • Cooling places to go: libraries, malls, movie theaters, respite centers |  <p>Make sure that all medications are taken in usual way unless advised by health care provider otherwise</p> |
|  <p>Cool down with showers or wet cool towels</p> |  <p>Dress in loose cotton clothing; If outside wear wide brimmed hat</p> |
|  <p>Stay informed with weather alerts and radio guidelines Know how to get help; Keep important phone numbers 911 for emergencies or if you are getting disoriented or confused</p> | |
| climatepsychiatry.org | |

These toolkits include tips for staying cool and avoiding overheating, such as:

- **Drink lots of water.** Staying well-hydrated is key to avoiding overheating. Do not wait until you are thirsty! By the time you are thirsty, you may already be dehydrated. If your urine is dark or if you are not urinating, you are becoming dehydrated.
- **Keep out of the heat.** Know cool places to go.
 - Libraries, malls, movie theaters, and air-conditioned coffee shops may be good places.
 - Your community may have cooling centers. Contact your public health department or ask your provider for resources.
 - Do not stay in overheated apartments or rooms with no ventilation. In very severe heat, fans blow hot air and may make things worse.
- **Wear light, loose clothing.** Do not wear jackets or layers.
- **Take showers** or keep your face and arms wet with water.
- **Find shade** and wear a wide-brimmed hat if possible.
- **Stay informed** by listening to radio or TV about warnings and ways to cope.
- **Avoid alcohol and recreational drugs.** Alcohol increases dehydration. Drugs?particularly MDMA, cocaine, and methamphetamine?reduce your ability to stay cool and release heat.
- **Do not stop taking medication or change your dose** unless a provider tells you to. Before the summer months, discuss safe use of medications with your provider.

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Source URL (modified on 10/16/2020 - 2:04pm): <https://psychiatry.ucsf.edu/copingresources/wildfires>

Links

[1] <http://openpix24.com/index.php?i=A7207639>

[2]

<https://www.youtube.com/watch?v=WN663nOWQ9A&list=PLWXu8EHZjBYpQZi9bs3XwtAssXYlwbTZV&index=1>

[3]

<https://www.youtube.com/watch?v=tc0oVEIWR5I&list=PLWXu8EHZjBYpQZi9bs3XwtAssXYlwbTZV&index=2>

[4] <https://psychiatry.ucsf.edu/copingresources/apps>

[5] <https://mashable.com/article/how-to-cope-climate-change-anxiety/>

[6] <https://globaloptimism.com/the-future-we-choose-book/>

[7] <mailto:ame.center@ucsf.edu?subject=Zoom%20classes%20on%20climate%20distress>

[8] <https://www.apa.org/topics/wildfires-tips>

[9] <https://www.redcross.org/about-us/our-work/disaster-relief/wildfire-relief.html>

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- [22] <https://www.kqed.org/science/1926793/protecting-your-health-from-toxic-wildfire-smoke>
- [23] https://airnow.gov/index.cfm?action=airnow.local_state&stateid=5&mapcenter=0&tabs=0
- [24] <https://www.purpleair.com/>
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- [27] <https://www.cdc.gov/air/wildfire-smoke/pregnancy.htm>
- [28] <https://www.cdc.gov/air/wildfire-smoke/children.htm>
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- [31] <http://www.climatepsychiatry.org>
- [32] <https://www.climatepsychiatry.org/toolkits>