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Schools Helping Schools



# Wildfires Resource Guide

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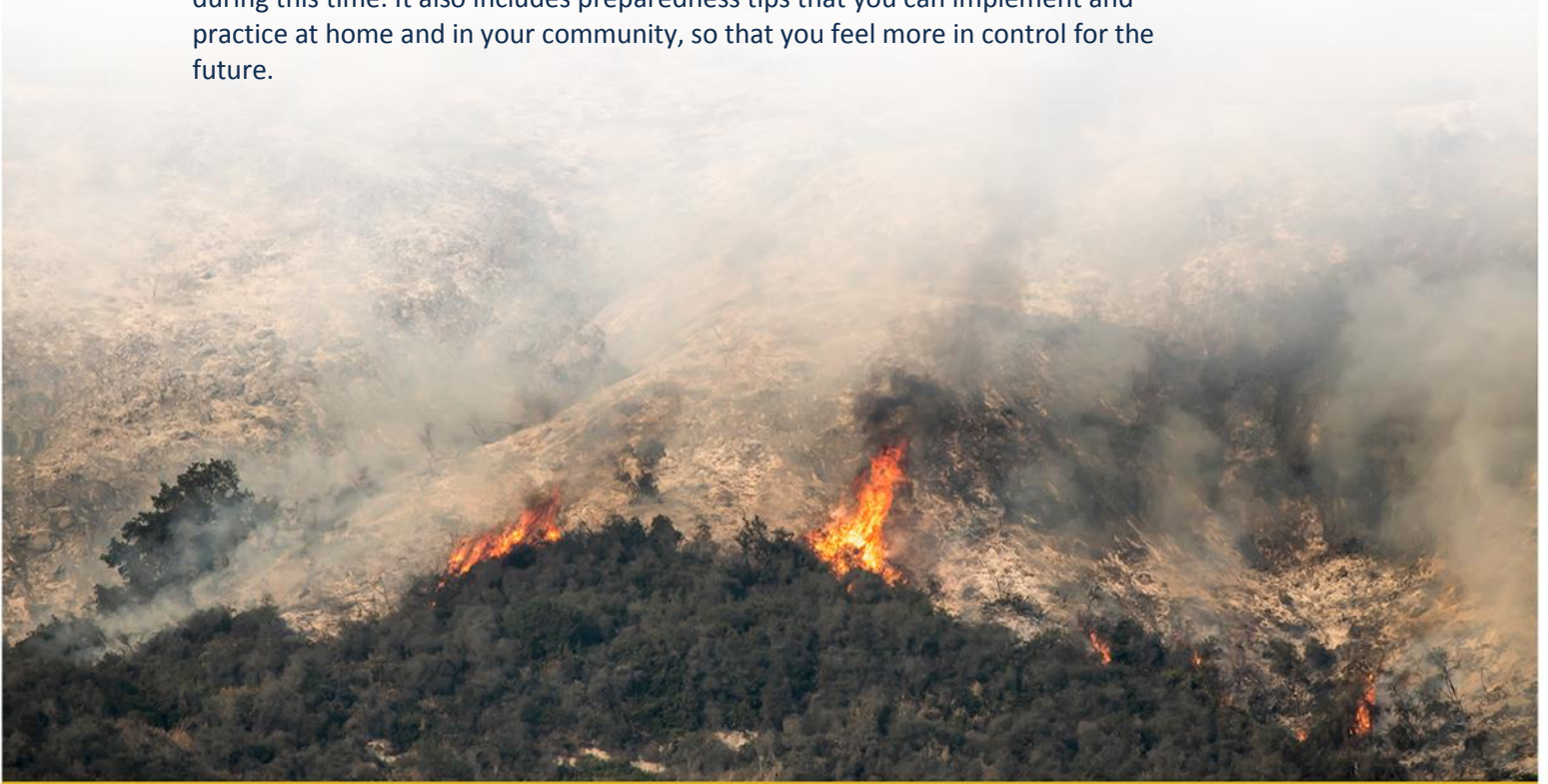


# INTRODUCTION

Wildfires are unpredictable and destructive. Coping with the threat of wildfire over the course of days or weeks is very stressful even when you are ultimately clear of danger. Of course, if you or those you care about are directly impacted, a more significant level of grief, anxiety, and stress can be triggered. Being evacuated from your home or even relocated for an extended period of time can cause emotional distress as well as physical discomfort and inconvenience, and the aftereffects can take a long time to heal. Additionally, there are health issues to consider, such as smoke inhalation and ash clouds, not to mention the damage to local wildlife and vegetation. It can feel like your whole life has changed and that you had no control. Having strong emotions during and following a wildfire is common.

Remember, you are not alone in this recovery period. Support and healing can often be found within your network of family, friends, and neighbors. Many communities will offer local support groups. This is also the time to consider contacting your employee assistance program (EAP), a free benefit that is available to you by telephone 24 hours a day, 7 days a week, to offer emotional and practical support. Your EAP is staffed with counselors who can help you understand your feelings and provide access to a local counselor if meeting with someone in person is recommended. The EAP can also help find emergency shelters for you or your pets, or find hotels or apartments, new child care arrangements, and many other local services.

This resource guide contains articles and resources that may be helpful to you during this time. It also includes preparedness tips that you can implement and practice at home and in your community, so that you feel more in control for the future.



# WILDFIRES

*Wildfires* are usually triggered by lightning or accidents and often go unnoticed at first. They can spread quickly and are especially destructive if they occur near forests, rural areas, remote mountain sites, and other woodland settings where people live. While not reported as often as floods, tornadoes, or severe storms, they, too, can cause emotional distress in people living in affected areas.

In 2013, more than 47,500 wildfires were reported in the United States. They destroyed thousands of structures, including about 1,100 homes, and burned more than 4 million acres of land.



Feelings such as overwhelming anxiety, constant worrying, trouble sleeping, and other depression-like symptoms are common responses before, during, and after wildfires. Other signs of emotional distress related to wildfires include

- Having thoughts, memories, or nightmares related to the wildfire that you can't seem to get out of your head
- Worrying a lot of the time
- Feeling guilty but not sure why
- Excessive absences from work or school

These are just a few warning signs of disaster-related distress. If you or someone you know shows any of these symptoms for 2 weeks or more, whether you know they are in relation to a wildfire or if it is unclear how they started, contact your employee assistance program (EAP), a mental health professional, or some other support service.

## Who is at risk for emotional distress?

People living in communities in Arizona, California, Colorado, Utah, and other states where wildfires often occur may be vulnerable to emotional distress. People who have struggled to recover from experiences with past wildfires also may experience distress. Other people at risk for emotional distress due to wildfires include the following:

- **Children and teens**—After a wildfire, young people may worry that another one will happen again, especially if they witnessed the fire and the loss of their home. Some children may become withdrawn, while others may become agitated and irritable and display outbursts of anger.
- **Older adults**—Older adults are more likely to need social support to reduce the effects of stress and move forward on the path of recovery. They also may have limited physical mobility and lack independence.

- **First responders and recovery workers—** These individuals may experience prolonged separation from loved ones (depending on the severity of the wildfire) and show signs of mental fatigue.

Once warnings and evacuation orders are issued, the risk for emotional distress becomes greater:

- You or your loved ones may feel unprepared, isolated, overwhelmed, or confused. Uncertainty about where to go during a wildfire, how to keep you and your loved ones safe, how to care for your pets, or whether you will be able to continue taking any medications can cause emotional distress.
- You may lose contact with a loved one in an impacted area.
- If you are relocated or lost your house to a wildfire, being in an unfamiliar environment can be difficult, especially for people with limited physical mobility, economic means, or knowledge of the English language.

Returning to a home, business, school, or place of worship impacted by a wildfire may cause additional distress, especially if there is structural damage. A temporary or permanent loss of employment may also occur.

Remember, too, that the anniversary of a disaster or tragic event can renew feelings of fear, anxiety, and sadness in disaster survivors. Certain smells or sounds, such as smoke or sirens, can also trigger emotional distress. These and other environmental sensations can take people right back to the event or cause them to fear that it's about to happen again. These *trigger events* can happen at any time.

People can experience a wide range of emotions before and after a disaster or traumatic event. There's no right or wrong way to feel. However, it's important to find healthy ways to cope when these events happen.

U.S. Department of Health and Human Services (HHS), Substance Abuse and Mental Health Services Administration (SAMHSA). (Updated 2016, September 24). *Types of disasters: Wildfires*. Retrieved November 16, 2018, from <https://www.samhsa.gov/>

# WILDFIRES: KNOW YOUR RISK

Wildfires can occur anywhere and can destroy homes, businesses, infrastructure, natural resources, and agriculture.

## What

A wildfire is an unplanned, unwanted fire burning in a natural area, such as a forest, grassland, or prairie. As building development expands into these areas, homes and businesses may be situated in or near areas susceptible to wildfires. This is called the *wildland urban interface*.

Wildfires can cause death or injury to people and animals, damage or destroy structures, and disrupt community services including transportation, gas, power, communications, and other services. The impact may cover large areas with extensive burning, embers traveling more than a mile away from the wildfire itself, and smoke causing health issues for people far away from the fire. Wildfires damage watersheds leave areas prone to flooding and mudslides for many years.

## Where

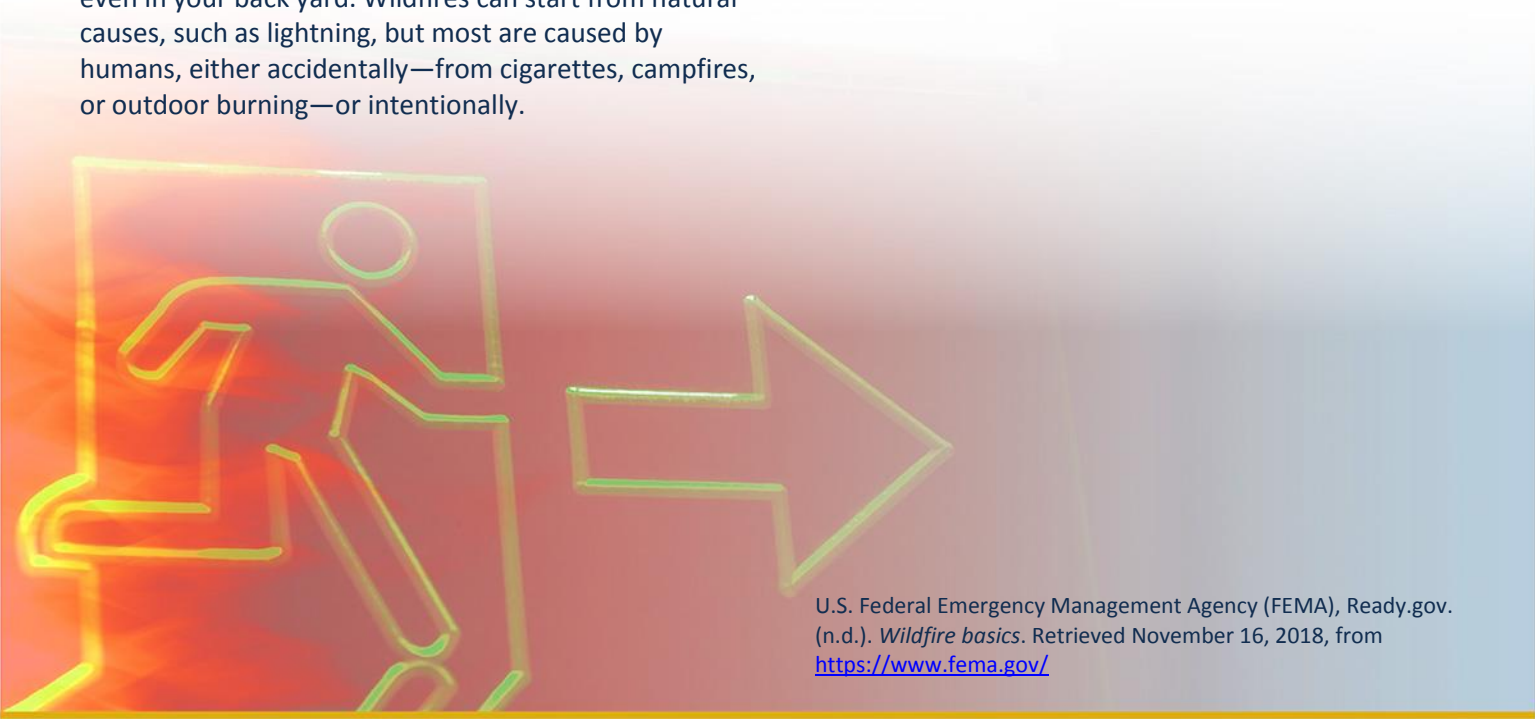
Wildfires can occur anywhere in the country. They can start in remote wilderness areas, in national parks, or even in your back yard. Wildfires can start from natural causes, such as lightning, but most are caused by humans, either accidentally—from cigarettes, campfires, or outdoor burning—or intentionally.

## When

Wildfires can occur at any time throughout the year, but the potential is always higher during periods with little or no rainfall, which make brush, grass, and trees dry and burn more easily. High winds can also contribute to spreading the fire. Your community may have a designated wildfire season when the risk is particularly high.

## Before Wildfire Season: Make A Wildfire Plan

- Know your wildfire risk.
- Make a wildfire emergency plan.
- Build or restock your emergency preparedness kit, including a flashlight, batteries, cash, and first aid supplies.
- Familiarize yourself with local emergency plans. Know where to go and how to get there should you need to evacuate.
- Stay tuned to your phone alerts, TV or radio, for weather updates, emergency instructions, or evacuation orders.



U.S. Federal Emergency Management Agency (FEMA), Ready.gov. (n.d.). *Wildfire basics*. Retrieved November 16, 2018, from <https://www.fema.gov/>

# PROTECT YOURSELF, YOUR HOME, AND YOUR COMMUNITY

Focus on fire safety: Practice and share these wildfire safety tips in your community!

## Community Preparedness

Work with your neighbors to protect your community from wildfires by following these preparedness tips:

- Follow evacuation instructions from your local emergency officials.
- Practice two ways out of your neighborhood; you will be more prepared if roads are blocked.
- Hold community meetings and work with neighbors to prepare the neighborhood for wildfires.
- Make sure driveways and house numbers are clearly marked and can be seen from the road.
- Meet with your local fire department. Find out how department personnel can help you prepare for wildfires.

Always stay aware of your environment, and when asked to leave by your local emergency officials, please do so. A delay could cost your life!

## Personal Responsibility

You can protect your family and home from wildfires by following these safety tips:

- Create an emergency bag of personal items that you will need if you are asked to leave your home.
- Leave your home when asked to do so.
- Make and frequently practice a family evacuation plan that includes meeting locations, a communication plan, and pet accommodations.
- Clean your roof, gutters, and deck of dead leaves and pine needles often.
- Use building and yard materials that won't burn easily.
- Keep woodpiles at least 30 feet from your home.
- Keep a safety zone of up to 100 feet around your home: Keep it lean, clean, and green.

U.S. Federal Emergency Management Agency (FEMA), U.S. Fire Administration (USFA). (2017, October). *Protect your home and your community from wildfires* [Poster]. Retrieved November 16, 2018, from <https://www.usfa.fema.gov/>



# WILDFIRES: BEFORE, DURING, AND AFTER

Wildfires can ruin homes and cause injuries or death to people and animals. A wildfire is an unplanned fire that burns in a natural area such as a forest, grassland, or prairie.

- Wildfires can often be caused by humans or lightning.
- Wildfires can cause flooding or disrupt transportation, gas, power, and communications.
- They can happen anywhere, anytime. Risk increases during periods of little rain and high winds.
- Wildfires cost the federal government billions of dollars each year.

## If you are under a wildfire warning, get to safety right away.

- Leave if told to do so.
- If trapped, call 911.
- Listen for emergency information and alerts.
- Use N95 masks to keep particles out of the air you breathe.

## How to Stay Safe When a Wildfire Threatens

### Prepare NOW.

- Sign up for your community's warning system. The Emergency Alert System (EAS) and National Oceanic and Atmospheric Administration (NOAA) Weather Radio also provide emergency alerts.

- Know your community's evacuation plans, and find several ways to leave the area. Drive the evacuation routes, and find shelter locations. Have a plan for pets and livestock.
- Gather emergency supplies, including N95 respirator masks that filter out particles in the air you breathe.
- Keep in mind each person's specific needs, including an updated asthma action plan and medication.
- Don't forget the needs of pets.
- Designate a room that can be closed off from outside air. Close all doors and windows. Set up a portable air cleaner to keep indoor pollution levels low when smoky conditions exist.
- Keep important documents in a fireproof, safe place. Create password-protected digital copies.
- Use fire-resistant materials to build, renovate, or make repairs.
- Find an outdoor water source with a hose that can reach any area of your property.
- Create a fire-resistant zone that is free of leaves, debris, or flammable materials for at least 30 feet from your home.
- Review insurance coverage to make sure it is enough to replace your property.
- Pay attention to air-quality alerts.



### Survive DURING.

- Evacuate immediately if authorities tell you to do so.
- If trapped, call 911 and give your location, but be aware that emergency response could be delayed or impossible. Turn on lights to help rescuers find you.
- Listen to EAS, NOAA Weather Radio, or local alerting systems for current emergency information and instructions.
- Use an N95 mask to keep harmful particles out of the air you breathe.
- If you are not ordered to evacuate but smoky conditions exist, stay inside in a safe location, or go to a community building where smoke levels are lower.

### Be safe AFTER.

- Listen to authorities to find out when it is safe to return and whether water is safe to drink.
- Avoid hot ash, charred trees, smoldering debris, and live embers. The ground may contain heat pockets that can burn you or spark another fire. Consider the danger to pets and livestock.

- Send text messages or use social media to reach out to family and friends. Phone systems are often busy following a disaster. Make calls only in emergencies.
- Wear a National Institute for Occupational Safety and Health (NIOSH)–certified respirator dust mask, and wet debris down to minimize breathing dust particles.
- Document property damage with photographs. Conduct an inventory, and contact your insurance company for assistance.
- Wildfires dramatically change landscape and ground conditions, which can lead to increased risk of flooding due to heavy rains, flash flooding, and mudflows. Flood risk remains significantly higher until vegetation is restored—up to 5 years after a wildfire. Consider purchasing flood insurance to protect the life you've built and to assure financial protection from future flooding.

U.S. Federal Emergency Management Agency (FEMA), Ready.gov. (Revised 2018). *Wildfires*. Retrieved November 16, 2018, from <https://www.ready.gov/wildfires>



# COPING WITH THE STRESS OF RELOCATION AFTER A DISASTER

## What is stress?

Knowing some basic facts about emotional stress can help you understand its effects:

- Stress is both a physical and an emotional response that results from an increase in tension or worry about something that is dangerous, unknown, or disturbing.
- Stress affects people's minds, emotions, and bodies. It can make it harder to think and concentrate. It can make it hard to control one's temper or make one cry more easily than usual. It can upset a person's digestion and make it hard to sleep, even when tired. Sometimes stress will make the heart beat faster, cause stomach problems, or cause you to feel short of breath.
- Some of the responses to stress depend on the person's age. The young and the elderly show stress in different ways, and specific techniques may be needed to relieve stress for each of these age groups.

## Relocation and Stress

Unplanned evacuations during a disaster can cause great stress on a community and on the individuals in that community. Some of the stressful factors related to sudden evacuations are the following:

- Disruptions of daily life routines
- Separation from family, friends, and coworkers
- Worries about the condition of homes and the community
- Concerns about pets
- Loss of family pictures and special items
- Difficulties getting around in a new location

The stress of evacuation can lead to feelings of isolation in the new location and of being neglected by society and government. Evacuees also may feel there was not adequate time to prepare for the evacuation.

## First Steps of Recovery

Recovering from a disaster occurs in phases over days, weeks, and months. Soon after being uprooted by a disaster, you can start the recovery process. During this time, there are three general steps you can take to improve the mental and emotional strength of your family. The following steps will help you to begin to retake control over your life.

### Step 1: Rebuild physical strength and health.

Once you and your loved ones are in a safe and secure place (e.g., a shelter, a new apartment, or a place with relatives or friends), make sure to tend to everyone's immediate medical needs if there are any. Be sure everyone has enough to eat and drink to regain their physical strength. Make sure everyone gets some restful sleep in as private a space as possible. Rebuilding physical strength is a good first step to calm shattered emotions.



**Step 2: Restore daily activities.**

Restoring daily routines helps build a sense of being home mentally and emotionally, even in the absence of a physical home. Simple routines that your family normally does together, such as family walks, watching television, and reading bedtime stories, help pull the pieces of daily life back together even in a new place. Restoring daily activities rebuilds the normal sense of morning, afternoon, evening, and night. Even though you are away from home and in a strange place, try to resume the daily routines as much as possible.

**Step 3: Provide comfort.**

Family members are better able to deal with the stress of relocation when they are comfortable and informed. Comfort can be increased by

- Providing your family with information about other family, friends, and news of home
- Expressing affection for family members in the ways your family normally shows affection
- Discussing, when ready, the emotions associated with the disaster and relocation, such as feelings of loss; missing home; and worries about family members, friends, and pets.

**Emotional Healing**

After the initial emergency has passed and the shock and confusion from disaster relocation have subsided, the physical rebuilding and long-term emotional recovery phase begins. This longer recovery phase has two steps:

1. Assess all physical and emotional losses. This inventory can help you identify practical actions to take in rebuilding the physical losses the family has experienced.
2. Develop an emotional understanding of the disaster experience and your relocation situation to help rebuild family life. Working through emotions takes time. There is no set time frame or stages for it.

Resolving emotions is a natural healing process that relies on talking to friends about your feelings; mentally sorting your emotions; and receiving practical and emotional help from family, friends, your place of worship, or other organized support groups in the community.

Your personal support groups can help you process your emotions and understand your experiences. Emotional processing involves experiencing the emotions associated with the disaster and figuring out what the disaster means to your life. One way that many people work through their emotions is by telling the story of what happened.

Many people who have lived through a natural disaster or terrorist attack have an overwhelming urge to tell the story over and over again. By sharing stories, you and those around you can sort out the sequence of events associated with the disaster, which at first may be a confused jumble. By telling the story, you can get input from others about what they saw and begin to put meaning into the experience.

Generally, as you heal emotionally over time, the story will pull together into an organized account that will have vivid details, emotions, and reflections about lessons learned during the experience. With emotional healing, thoughts and dreams about the disaster will be less painful. You will have gained some emotional distance from the events of the disaster. How long this process takes depends on what happened during the disaster and your own unique mental and emotional makeup. You will always associate some pain with the disaster, but it will not be so overwhelming after the passage of time allows for emotional healing.

**Signs That Professional Help Is Needed**

Here are some signs that the person is overwhelmed by emotions and may need help:

- The story is too painful to tell.
- The person creates a wall of silence around the event for a long time.
- The person cannot express or experience his or her feelings.
- Dreams and thoughts of the experience continue to evoke very painful emotions that do not go away.
- The person's behavior dramatically changes.
- The person has thoughts of self-harm or hurting others.

If these signs are present, an appointment with a mental health professional should be arranged to help with the healing process.

## How Disaster-Related Stress Affects Young People

Disaster-related stress affects young people in several ways:

- Damage, injuries, and deaths that result from an unexpected or uncontrollable event are difficult for most young people to understand.
- Following a disaster, a young person's view of the world as safe and predictable is temporarily lost. This is true of adults as well.
- Young people express their feelings and reactions in various ways, especially in different age groups. Many are confused about what has happened and about their feelings. Not every child has immediate reactions; some can have delayed reactions that show up days, weeks, or even months later, and some may never have a reaction. Children's reactions are strongly affected by the emotional reactions of their parents and the adults around them.
- Young people can easily become afraid that a similar event will happen again and that they or their family will be injured or killed.

## How Young People Show Stress

It is normal for young people to show signs of stress after a disaster. Young people show signs of stress differently at different ages or school levels. This article looks at three age groupings:

- Preschool years
- Elementary and middle school years
- High school and teenage years

### Signs of Stress: Preschoolers

Signs that preschool-age children may be experiencing normal, but high, levels of stress may include

- Waking up confused and frightened from bad dreams
- Being reluctant to go to bed or refusing to sleep alone
- Acting and showing behaviors younger than their actual age, such as whining, thumb-sucking, bed-wetting, baby talk, or fear of darkness

- Clinging to adults more than normal
- Complaining often about illnesses such as stomachaches
- Not having fun doing things they normally enjoyed
- Being irritable

### Signs of Stress: Elementary or Middle-School Age

Signs that elementary or middle-school-age children are experiencing normal, but high, levels of stress may include

- Ongoing concern over their own safety and the safety of others in their school or family
- Irrational fears
- Becoming extremely upset for little or no reason
- Having nightmares and sleep problems
- Experiencing problems in school, such as truancy or misbehavior (e.g., loss of interest, withdrawal, or excessive need for attention)
- Complaining of headaches or stomachaches without cause
- Not having fun doing things they normally enjoyed
- Disruptive behaviors—outbursts of anger and fighting
- Being numb to their emotions
- Experiencing guilt or shame about what they did or did not do during the disaster

### Signs of Stress: High-School Age

Signs that teenagers may be experiencing normal, but high, levels of stress include

- Feeling self-conscious about their feelings concerning the disaster
- Feeling fearful, helpless, and concerned about being labeled "abnormal" or different from their friends or classmates (this may lead to social withdrawal)
- Experiencing shame or guilt about the disaster
- Expressing fantasies about retribution concerning people connected to disaster events
- Not having fun doing things they normally enjoyed
- Difficulty concentrating
- Impulsive behaviors
- Emotional numbing
- Seeing the world as an unsafe place

### Helping Young People Understand a Disaster

Disasters can hit young people hard. It is difficult for them to understand and accept that there are events in their lives that cannot be controlled or predicted. When facing an unknown and potentially dangerous situation, young people usually look to adults for answers and help.

Talk with young people at a level in line with their age. Children handle information differently at different ages. Preschool-age children cannot handle as much information as teenagers.

Before you as an adult can help young people cope with a disaster, it is important for you to recognize your own natural feelings of helplessness, fear, and anger, if these exist. Until this occurs, you will not be able to give a young person the full emotional help he or she needs. Nothing is wrong with letting young people know that you do not have all the answers. Things that can be done immediately include the following:

- Let young people know how you see the family situation improving—for example, your plans for their school, your work, and family housing.
- Communicate a positive "I'm not helpless" attitude, stressing that "we can get through this together."
- Ask for parenting or other help if the situation gets beyond your abilities and control.

These actions will start the healing process and help young people to feel relief in knowing the family will regain control and restore their lives.

### Parenting Tips for Helping Young People Manage Stress

You can use these practical parenting tips to help deal with managing high levels of stress in young people. Choose the age-appropriate approach for your child.

#### For Preschool-Age Children

- Reassure young children that the disaster was not their fault in any way.
- Talk with children about how they are feeling, and listen without judgment.
- Let children know they can have their own feelings, which may be different from the feelings of others.

- Let children take their own time to figure things out.
- Do not expect children to be brave or ask them to pretend that they do not think or feel as they do.
- Give preschoolers small bits of information in relation to their questions. Too much information can confuse them.

#### For Preschool and School-Age Children

- Return to former routines of bedtime, eating, and so forth as soon as possible. If this is not possible, develop new routines. The structure of a routine provides security and assurance.
- Do not expect children to be brave or tough or not to cry.
- Do not minimize the event.
- Hug your children. Hugging lets your children know that someone is there for them.
- Allow special privileges, such as leaving the light on when they sleep.
- Spend extra time with your children at bedtime. Read stories, listen to music, and talk quietly.
- Children, just like adults, cope better when healthy. Make sure children are getting balanced meals, proper exercise, and enough rest.
- Find ways to emphasize to your children that you love them.
- Encourage children and adolescents to feel in control by letting them choose which clothes to wear, what food to eat at meals, and so forth.

### Activities to Help Children Manage Disaster-Related Stress

Consider the following ideas. These activities and tips can help young people manage stress.

#### For Preschool- and School-Age Children

- Encourage children to draw or paint pictures of how they feel about their experiences. Hang the pictures at a level where children can see them easily. Talking about their drawings can help lessen feelings of stress.
- Playing with Play-Doh or clay is good way for children to release tension.
- Playing music is fun and valuable for children.

- Creating music with instruments or rhythm toys helps relieve stress and tension.
- Make puppets with the children and put on a puppet show for family and friends, or help children put on a skit that helps them communicate about what happened.
- Don't let children watch too much disaster-related television. Hearing about the events and seeing the tragic images over and over again will certainly raise their anxiety.
- Be aware of your own emotional reactions around your children. It is all right to share your feelings, but you must also show your children that you are in control of your emotions. Do not look to children for your emotional support.

### For Teenagers

- Encourage your teenager to talk one-on-one with a trusted adult or in a small group of peers about the event. Generally, this is most successful when you begin with general events, move to more event-specific experiences, and follow with each person's experiences with the disaster.
- Teenagers may wish to talk about values, moral issues, and the meaning of the disaster.

### When Young People May Need Additional Help

Situations may develop when young people need additional help dealing with emotional aftereffects of the disaster. Young people may benefit from help from a health care professional if the emotional stress associated with the disaster does not get better in a few weeks or when they

- Display continual and aggressive emotional outbursts
- Show serious problems at school (e.g., fighting, skipping school, arguments with teachers, or food fights)
- Withdraw completely from family and friends
- Cannot cope with routine problems or daily activities
- Engage in vandalism or juvenile law-breaking activities
- Express suicidal ideas

Reaching out for help is not a sign of weakness. People have limits and sometimes need help when stretched beyond their limits. Seeking help from others can offer solutions that may not be known to you.

### Issues and Tips Regarding Stress Effects in Older People

Several issues need to be taken into account when helping elderly friends and family who may be under stress after a disaster and who are suffering from the effects of a sudden relocation. Consider the following concerns.

#### Communication Problems

Some older persons in shelters or in new surroundings may have difficulty

- Understanding family and friends
- Talking to people or answering questions

These communication problems may be caused by normal, age-related problems with memory, seeing, and hearing, and the reduced ability to physically move because of illnesses or the effects of medications. Make sure that the older person has the eyeglasses he or she needs and that hearing aids are on before talking to him or her. Be patient and calm. Speak loudly enough to be heard, but do not shout. Keep your messages simple and clear. Repeat information, and make sure that the person in your care hears and understands what is said.

#### Danger From Falls

Be aware that in unfamiliar settings, clutter and poor lighting could cause an elderly person to fall. Balance problems, muscle weakness, and medications can add to the risk of falling. Check new living quarters for anything that could lead to a fall—for example, loose throw rugs. Make sure stairs and hallways are well lit. Provide walking assistance if needed.

#### Chronic Illness and Dietary Considerations

Arthritis may prevent an elderly family member from standing in a line. Some medications can cause mental confusion or a greater susceptibility to problems such as dehydration. Memory problems can cause communication problems. Neglect of special meal needs in certain illnesses can lead to medical crises.

As soon as possible, make sure the elderly family member

- Has all of his or her medicines
- Eats the foods required to manage illnesses
- Has written diet and medication information along in case he or she is separated from you
- Establishes contact with his or her medical care provider, or finds a new one and provides his or her medical history to the care provider

### **Disoriented Behavior**

At night, when nearby surroundings are not seen as well as in the day, some elderly people with mild or moderate dementia or problems thinking clearly can become confused about where they are. You may need to orient them to time and place.

Make sure the elderly person has a clock and a calendar in his or her room. If you have any of his or her familiar things, place those in the room. Be sure that there is some soft, nonglaring light in the room and that it is as quiet and calm as possible. If you cannot reorient the elderly person to where he or she is and your efforts are upsetting, just reassure him or her and distract the person with other activities.

### **Multiple-Loss Effect**

The elderly family member who may have lost his or her spouse, income, home, or physical capabilities may have difficulty "bouncing back" from the loss. Show empathy for the person's situation by listening. Give comfort by your presence, and let him or her know you are there and care. Do not minimize what he or she has lost.

### **Worries About Loss of Independence**

Loss of the ability to live independently because of a disaster-related injury or loss of a home can be the biggest blow that a disaster deals older people. Within the constraints of the situation, allow them to do what they can for themselves and keep as much dignity and independence as is possible.

### **Welfare Stigma and Unfamiliarity With Bureaucracy**

Many older family members are unwilling to accept government welfare assistance because they have always "paid their way." In a disaster, however, government help may be needed. Their unwillingness to accept help may be made worse by unfamiliarity with government services for which they are eligible, particularly during disasters. If the person is reluctant to accept assistance, relate the assistance to a time when he or she helped someone in need, or explain that this help comes from taxes he or she has paid.

### **Getting Too Hot or Too Cold**

Older people may not handle extremes of heat or cold well. Either too much heat or too much cold can have marked effects upon them. This becomes critical in disasters that close down furnaces or air conditioners. Be aware of the need to keep elderly family members out of extremes of heat and cold.

### **Dehydration**

Elderly people are more susceptible to dehydration. They do not feel thirsty as quickly as young people and do not drink water and other liquids as often. Some of the medicine they take can also lead to water loss. Check to make sure that your elderly relatives have access to safe, clean drinking water and that they are drinking it. Watch for signs of dehydration such as sunken eyes, no tears, and dry mouth.

### **Language and Cultural Barriers**

Lower reading skill levels among some elders and inadequate command of the English language among speakers of other languages can cause confusion and frustration at relief centers or in new housing locations. Try to match the elderly person with someone fluent in his or her native language.

### **Dealing With Change**

Remember that elderly people have strengths gained from a lifetime of coping with adversity. Know also that elderly people tend to underreport problems, both to family and physicians, as they may want to cope on their own. Therefore, it is important to pay attention to how they feel and act in times of change and relocation.

### Signs of Stress in Older People

Elders can suffer various symptoms from worsening of pre-existing medical problems, problems with medications, new illnesses, or psychological stress. Therefore, it is important to make sure that they are medically stable before deciding that these symptoms are due to emotional stress.

Under stress, whether from physical or emotional sources, people who are elderly can

- Become mentally confused
- Tire easily
- Withdraw from friends and family
- Undergo personality changes in severe cases

You should also know that older people might tend to complain of bodily symptoms rather than emotional problems when under stress. Again, remember not to dismiss any bodily symptoms as just due to stress.

### Special Issues for Frail Elders

Many elderly are very healthy, well-functioning, capable adults. For example, according to the U.S. Agency for Toxic Substances and Disease Registry, at age 60 years, only 15% of elderly people suffer from dementia; at age 85 years, 50% of the elderly are affected by dementia. The older, frailer elders are the ones who may be more vulnerable in a disaster due to medical illnesses.

### How to Help Older People Deal With Stress

In general terms, these principles will help guide you when helping an elderly person deal with the stress of evacuation and relocation:

- Provide strong and persistent verbal reassurance.
- Assist with recovery of physical possessions as is safe, make frequent home visits, and arrange for companions.
- Give special attention to suitable residential relocation, ideally in familiar surroundings with friends or acquaintances.
- Help re-establish contact with family and friends.
- Assist in obtaining medical and financial assistance.
- Help re-establish medication and any dietary regimens.
- Provide transportation to the doctor, grocery store, and the like.

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U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Agency for Toxic Substances and Disease Registry (ATSDR). (Reviewed 2018 [Ed.]). *Relocation stress: Helping families deal with the stress of relocation after a disaster*. Retrieved November 16, 2018, from <https://www.atsdr.cdc.gov/>



# RESPIRATORS CAN PROTECT YOUR LUNGS FROM WILDFIRE SMOKE

Wildfire smoke can irritate your eyes, nose, throat, and lungs. It can make you cough and wheeze, and can make it hard to breathe. If you have asthma or another lung disease, or heart disease, inhaling wildfire smoke can be especially harmful.

If you cannot leave the smoky area, good ways to protect your lungs from wildfire smoke include staying indoors and reducing physical activity. Wearing a special mask called a *particulate respirator* can also help protect your lungs from wildfire smoke.

## How to Choose the Correct Mask to Protect Your Lungs

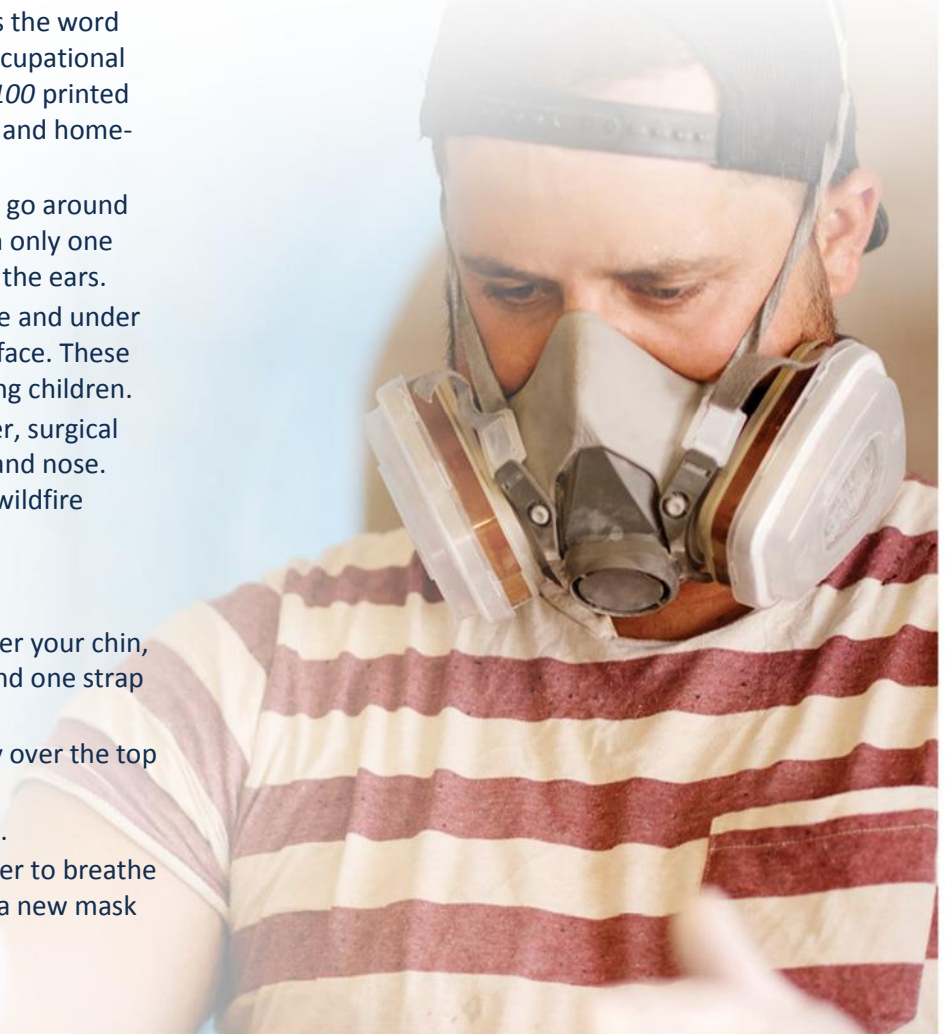
- Choose a particulate respirator that has the word *NIOSH* (for the National Institute for Occupational Safety and Health) and either *N95* or *P100* printed on it. These are sold at many hardware and home-repair stores and pharmacies.
- Choose a mask that has two straps that go around your head. **DO NOT** choose a mask with only one strap or with straps that just hook over the ears.
- Choose a size that will fit over your nose and under your chin. It should seal tightly to your face. These masks do not come in sizes that fit young children.
- Do not use bandanas (wet or dry), paper, surgical masks, or tissues held over the mouth and nose. These will not protect your lungs from wildfire smoke.

## How to Use a Mask

- Place the mask over your nose and under your chin, with one strap placed below the ears and one strap above.
- Pinch the metal part of the mask tightly over the top of your nose.
- The mask fits best on clean-shaven skin.
- Throw out your mask when it gets harder to breathe through, or if the inside gets dirty. Use a new mask each day if you can.

- It is harder to breathe through a mask, so take breaks often if you work outside.
- If you feel dizzy or nauseated, go to a less smoky area, take off your mask, and get medical help.
- If you have a heart or lung problem, ask your doctor before using a mask. For more information about protecting yourself from wildfire smoke, call your local health department.

U.S. Environmental Protection Agency (EPA) & California Environmental Protection Agency, Air Resources Board (ARB). (Revised 2016, May). Appendix B: Protect your lungs from wildfire smoke – Fact sheet from California Department of Public Health. In *Wildfire smoke: A guide for public health officials* (pp. 54–55). Retrieved November 16, 2018, from <https://www.epa.gov/>



# WILDFIRES AND CHILDREN: IMMEDIATE HEALTH RISKS

Wildfires expose children to a number of environmental hazards like fire; smoke; psychological stress; and the by-products of burnt wood, plastics, and other chemicals released from burning structures and furnishings. During or immediately after the wildfire, the major hazards to children are fire and smoke. Stress from seeing the fires and the emotional responses of those around them can also impact children during this time. Although some of the exposures children may encounter in this setting may cause or worsen health problems (described later), there are important ways that parents can protect their children.

Children, individuals with pre-existing lung or cardiovascular problems, pregnant women, elderly, and smokers are especially vulnerable to environmental hazards such as smoke. Children are in a critical period of development when toxic exposures can have profound negative effects, and their exploratory behavior often places them in direct contact with materials that adults would avoid. What follows are the most critical environmental hazards that exist during or immediately after the wildfire.

## Health Effects of Smoke

Smoke consists of very small particles, liquid droplets, and gases such as carbon monoxide, carbon dioxide, and other volatile organic compounds such as formaldehyde and acrolein. The actual content of smoke depends on the substance that is burning.

Symptoms from smoke inhalation can include chest tightness, shortness of breath, wheezing, coughing, respiratory tract and eye burning, chest pain, dizziness or light-headedness, and other symptoms. Asthma symptoms may flare up. The risk of developing cancer from short-term exposures to smoke is very small.

## Recommendations

- Stay indoors with windows and doors closed and any gaps in the building envelope sealed. Avoid strenuous activity.
- If available and if needed for comfort, run an air-conditioner on the "recirculate" setting. Be sure to change the filter at appropriate intervals. Some electronic air cleaners and ozone-generating "filters" can generate dangerous amounts of ozone indoors. These ozone-filtration systems do not remove harmful contaminants from the air and are not recommended.
- Never operate gasoline-powered generators indoors—they produce dangerous carbon monoxide. Avoid smoking, using wood stoves, and other activities that add to indoor air contamination.
- If there is a period of improved air quality, open up (air out) the house, and clean to remove dust particles that have accumulated inside.



- Humidifiers or breathing through a wet washcloth may be useful in dry climates to keep mucous membranes moist, although this does nothing to prevent inhalation of contaminants.
- When riding in a car, keep the windows and vents closed. If comfort requires air circulation, turn the air-conditioning on "recirculate" to reduce the amount of outside air drawn into the car.
- Children with asthma or heart disease, and others considered at high risk from health effects from contaminant inhalation should be moved to an adequate "clean air" shelter, which may be in their home, in the home of a friend or relative, or in a publicly provided clean air shelter.

### Use of Masks

Surgical masks are not effective obstacles to inhalation of the fine particles (e.g., paint, dust) generated by wildfires. Although smaller sized masks may appear to fit a child's face, none of the manufacturers of masks recommend their use in children. If your child is in air quality severe enough to warrant wearing a mask, you should move them to an indoor environment with cleaner air.

### Closing of Schools and Businesses

Closing schools and businesses may become necessary when air quality is so poor that even traveling outside from place to place puts people at risk. However, in some situations, the school may be a relatively protected indoor environment with better air quality and where children's activity can be monitored.

### Consideration of Evacuation

If you are considering evacuation because of smoke, weigh the effects of smoke exposure during the evacuation versus what the exposure would be while resting quietly inside one's home. A disorderly evacuation can increase the duration of smoke exposure. Remember to bring with you at least 5 days of any medications taken by family members.

### Ash

Recent fires may have deposited large amounts of ash on indoor and outdoor surfaces. This ash may be irritating to the skin, nose, and throat and may cause coughing. The following steps are recommended:

- Do not allow children or animals to play in ash.
- Wear gloves, long-sleeved shirts, and long pants when handling ash, and avoid skin contact.
- Wash any home-grown fruits or vegetables before eating.
- Avoid spreading the ash in the air, wet down the ash before attempting removal, and do not use leaf blowers or shop vacuums.

### Psychological Effects on Children

Parents and caregivers should also be alert to children's emotional health and psychological well-being. It is important to keep in mind that the youngest members of our society may easily become saturated with graphic images and incessant talk of smoke, flames, and destruction. Resulting stress and anxiety may be manifested in a variety of ways:

- Clinging, fears
- Uncooperative behaviors, irritability
- Nightmares
- Health complaints
- Changes in eating or sleeping patterns
- Regression to babyish behaviors
- Indifference

Parents and caregivers can support children in a number of ways:

- Maintain previously established routines as much as possible.
- Provide a listening ear for children; encourage the expression of feelings through music, art, journaling, and talking.
- Answer questions openly and honestly, remaining mindful of the age of the child.
- Reassure and hug when hugs are wanted; practice patience and have a peaceful demeanor, as children take their cues from their parents.

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U.S. Environmental Protection Agency (EPA) & California Environmental Protection Agency, Air Resources Board (ARB). (Revised 2016, May). Appendix E: Children's health fact sheets from the Pediatric Environmental Health Specialty Units (PEHSU). In *Wildfire smoke: A guide for public health officials* (pp. 66–69). Retrieved November 16, 2018, from <https://www.epa.gov/>

# HAZARDS DURING CLEANUP WORK FOLLOWING WILDFIRES

## Cleaning Up After a Wildfire

The purpose of this article is to discuss some of the health and safety hazards that homeowners and workers may encounter after a wildland fire. This information is not designed to address health and safety for firefighters or other emergency response workers during a wildfire or other emergency event.

After a wildfire has ended, cleanup and recovery activities are often needed. These activities may pose health and safety hazards that require necessary precautions. In most cases, it may be more appropriate for professional cleanup and disaster restoration companies, rather than homeowners or volunteers, to conduct this work. Although the types of hazards may be different for each wildland fire, some common hazards include

- Contact with fire
- Burnt and unstable structures
- Burnt and unstable trees
- Carbon monoxide
- Confined spaces
- Fatigue and stress
- Electrical dangers
- Hazardous materials
- Hot environments
- Musculoskeletal injuries
- Wildfire smoke and ash
- Working with and around heavy equipment

## Health and Safety Hazards After a Wildland Fire

### 1. Contact With Fire

After a wildfire, trained firefighters will make sure the fire is completely out. If there is any chance the wildfire could reignite, leave immediately and notify emergency personnel.

### 2. Burnt and Unstable Structures

Be aware of unstable and damaged houses and other structures after a wildfire. Do not assume that these areas are safe or stable, because damage may not be noticeable and can create a risk for serious injuries from slips, falls, punctures, or being struck by collapsing materials.

### Safety Measures

Follow these tips to prevent injuries from burnt and unstable structures:

- Conduct a thorough inspection, and identify and eliminate hazards before conducting any work. Avoid work around fire-damaged structures, including stairs, floors, and roofs, until an engineer or architect examines and certifies the structure is safe.
- Wear personal protective equipment, including long-sleeved shirts and pants, hard hats, safety glasses, leather gloves, and steel-toe boots, to reduce the risk of injury.
- Leave immediately if a structure shifts or makes an unusual noise that could signal a possible collapse.



### 3. Burnt and Unstable Trees

Another common hazard after a wildfire is unstable trees, known as "snags" or "hazard trees," which can fall and injure homeowners and workers. It is important to assess the stability of all trees before working and driving around them.

#### **Safety Measures**

Always contact a professional to evaluate a tree's stability and to safely remove any suspected hazardous trees from the property and along roadways before conducting cleanup work.

### 4. Carbon Monoxide

Wildland fire cleanup activities may involve the use of gasoline- or diesel-powered pumps, generators, and pressure washers. This equipment releases carbon monoxide (CO), a deadly, colorless, odorless gas. It is important that homeowners and workers protect themselves from CO poisoning.

#### **Safety Measures**

Follow these tips to avoid the risk of CO poisoning:

- Never bring gas- or diesel-powered machines indoors.
- Operate these machines only in well-ventilated areas.
- Do not work near exhaust gases (CO poisoning can occur even outdoors near exhaust from engines that generate high concentrations of CO).
- Shut off the equipment immediately and seek medical attention if you experience symptoms of CO poisoning.

### 5. Confined Spaces

A *confined space* is an area that has limited openings for entry or exit, has limited air flow, and is not designed for human occupancy. Examples of confined spaces include septic tanks, storage tanks, utility vaults, and wells. These spaces may contain toxic gases, may not have oxygen, or may be explosive. In many cases, these hazards are not easily recognized without proper training and equipment.

#### **Safety Measures**

Never enter a confined space without proper training and equipment, even to rescue a fellow worker. Contact the local fire department for help.

### 6. Fatigue and Stress

A homeowner may experience emotional stress and mental and physical fatigue from cleanup and from loss of personal property or valuables. Fatigue and stress may increase the risk of injury and illness.

#### **Safety Measures**

After a fire, homeowners or other workers may need to do the following:

- Seek emotional support from family members, neighbors, and local mental health care workers to help prevent more serious stress-related problems.
- Set priorities for cleanup tasks, and pace work over days or weeks to avoid physical exhaustion.
- Rest and take frequent breaks to avoid exhaustion.
- Begin a normal sleep and eating schedule as quickly as possible.
- Take advantage of disaster relief programs and services in the community.
- Understand physical and mental limitations.

### 7. Electrical dangers

One common danger after a fire is a downed or damaged power pole with potentially energized power lines lying on the ground or hanging from the pole. Any type of work with power lines or other electrical sources must be conducted only by trained professionals, such as electricians and utility workers. If a potential electrical danger or a downed power line is identified, avoid all electrical hazards by stopping work and immediately notifying the local utility company.

#### **Safety Measures**

When working near power lines, it is important to follow these steps to prevent electrical injuries:

- Do not work or enter any area with any potential for electrocution from a power line or other electrical hazards.
- Treat all power lines and cables as energized until proven otherwise.
- When the power is off, never restore power until a professional inspects and ensures the integrity of the electrical system.
- Do not use electrical equipment that has been exposed to heat from a fire until checked by an electrician.

- Unless power is off, never enter flooded areas or touch electrical equipment if the ground is wet.
- Use extreme caution when equipment is moved near overhead power lines. For example, contact between metal ladders and overhead power lines can cause serious and often fatal injuries.
- Do not stand or work in areas with thick smoke. Smoke hides electrical lines and equipment.

### 8. Hazardous and Other Potentially Dangerous Materials

Many homes and other structures may contain or store hazardous materials and chemicals. Some common materials include asbestos, lead, pesticides, propane, and gasoline. These materials may cause health effects, may be explosive, or may react with other chemicals. Before beginning cleanup activities, contact a professional who is familiar with hazardous materials to determine the different types of hazards that are present and how to safely clean up and dispose of them in accordance with local and state laws.

#### *Safety Measures*

Follow these tips to reduce the chance of exposure to hazardous and other dangerous materials:

- Be cautious of chemicals, propane tanks, and other dangerous materials.
- Wear protective clothing and gear when handling hazardous materials.
- If exposed to hazardous materials, wash the affected area (e.g., skin, eyes), and contact your local poison control center or the American Association of Poison Control Centers at 1 (800) 222-1222. Seek medical care immediately if the exposure is severe or you experience symptoms.
- Homes built before 1980 may contain asbestos and lead. Contact your county health department to learn about local laws and regulations. Because disturbing lead and asbestos may result in serious health consequences, it is recommended that only trained professionals test for and clean up materials that contain lead or asbestos.
- Fires may also damage tanks, drums, pipes, or equipment that may contain hazardous materials, such as pesticides, gasoline, or propane. Before opening or removing containers that may contain hazardous materials, contact the local fire

department or a hazardous materials team to help assess and remove hazardous waste.

### 9. Hot Environments

While working in hot weather, homeowners and cleanup workers could be at risk for heat-related illnesses, such as heat stress, heat rash, heat cramps, and heat stroke. It is important to be aware of the symptoms of heat-related illness, how the illness can affect health and safety, and how it can be prevented.

#### *Safety Measures*

To reduce the potential for heat-related illnesses, it is important to follow some basic work practices:

- Wear lightweight, light-colored, loose-fitting clothes.
- If possible, block out direct sun or other heat sources.
- Take frequent breaks in cool, dry areas.
- Acclimatize before working (get used to weather conditions).
- Work during the cooler hours of the day when possible.
- Maintain hydration by drinking plenty of water and other fluids.

If a homeowner or worker displays any signs of heat-related illness, it is important to immediately go to a cool, shaded place, sit or lie down, and drink water. If possible, cool water may be poured over the homeowner's or worker's head and body. Seek medical attention immediately if the symptoms do not subside.

### 10. Musculoskeletal Injuries

Homeowners and workers who may be involved in cleanup activities are at risk for developing stress, strain, and potential musculoskeletal injuries, which are injuries or disorders of the muscles, nerves, tendons, joints, cartilage, or spinal discs. These common injuries can occur when moving debris and materials or using hand-held equipment (e.g., chainsaws), due to repetition, force, vibration, or awkward postures.

#### *Safety Measures*

Here are some useful tips to prevent these injuries:

- Use teams of two or more to move bulky objects.
- Take breaks when conducting repetitive work, especially if experiencing fatigue.

- Avoid working in unusual or constricting postures.
- Use correct tools and equipment for the job, and use them properly.
- Do not lift material weighing 50 pounds or more, and use automated lifting devices for heavier objects.
- Be sure the area is clear of slip, trip, and fall hazards.

## 11. Wildfire Smoke and Ash

### Smoke

Smoke from a wildland fire can pose health risks. Older adults, young children, or individuals with underlying heart or lung disease are the most likely to be affected by inhaling wildland fire smoke. Healthy individuals may also experience short-term respiratory irritation symptoms, such as burning eyes and runny nose. If there is smoke in the area, homeowners and cleanup workers who are sensitive to smoke should consider leaving the area until the smoke clears.

### Ash

Ash from wildland fires can be deposited on indoor and outdoor surfaces in areas around the fire; can be irritating to the skin, nose, and throat; and may cause coughing.

### Safety Measures

Follow these tips to minimize the health effects that may occur due to exposure to smoke and ash:

- Always wear proper personal protective equipment (long-sleeve shirts, pants, gloves, and safety glasses) when working around ash. If you do get ash on your skin, wash it off as soon as possible.
- Do not use leaf blowers or take other actions (e.g., dry sweeping) that will put ash into the air. Shop vacuums and other common vacuum cleaners do not filter out small particles, but rather blow the particles out the exhaust into the air. To clean up ash, use vacuums equipped with high-efficiency particulate air (HEPA) filters.

- Do not consume any food, beverage, or medication that has been exposed to burn debris or ash.
- Well-fitting respirators may provide some protection during cleanup. Please visit the National Institute for Occupational Safety and Health (NIOSH) "Respirator Trusted-Source Information" page at [https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/respsource.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource.html).
- If the presence of asbestos, lead, carbon monoxide (CO), or other hazardous material is suspected, do not disturb the area. Dust masks or filtering face-piece respirators do not protect against asbestos or gases such as CO.
- Avoid burned items that may contain hazardous chemicals, such as cleaning products and paint and solvent containers.
- Avoid ash from wooden decks, fences, and retaining walls pressure-treated with chromated copper arsenate (CCA), as it may contain lethal amounts of arsenic.

## 12. Working With and Around Heavy

Do not operate heavy equipment, such as bulldozers, backhoes, and tractors, unless you are properly trained. Serious and fatal injuries can occur when equipment is used improperly.

## 13. First Aid

First aid, even for minor cuts and burns, is extremely important, as workers are exposed to smoke and burned materials.

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U.S. Environmental Protection Agency (EPA) & California Environmental Protection Agency, Air Resources Board (ARB). (Revised 2016, May). Appendix C: Hazards during cleanup work following forest fires from National Institute for Occupational Safety and Health (NIOSH). In *Wildfire smoke: A guide for public health officials* (pp. 56–63). Retrieved November 16, 2018, from <https://www.epa.gov/>

# AFTER THE FIRE: RETURNING TO NORMAL

A fire will change your life in many ways. Knowing where to begin and who can help you is important. The U.S. Fire Administration hopes you find this information useful in your journey to return to normal.

## What to Expect

A fire in a home can cause serious damage. The building and many of the things in your home may have been badly damaged by flames, heat, smoke, and water.

You will find that things the fire did not burn up are now ruined by smoke and soggy with water used to put out the flames. Anything that you want to save or reuse will need to be carefully cleaned.

The firefighters may have cut holes in the walls of the building to look for any hidden flames. They may even have cut holes in the roof to let out the heat and smoke. Cleanup will take time and patience.

If your home had a home fire sprinkler system, you will find little damage from flames, heat, smoke, and water. If you plan to rebuild your home, now is the time to think about installing sprinklers. You can find more information at the Home Fire Sprinkler Coalition's website: <https://homefiresprinkler.org/>.

## Use caution.

It is important to understand the risk to your safety and health even after the fire is out. The soot and dirty water left behind may contain things that could make you sick.

Be very careful if you go into your home and if you touch any fire-damaged items. Ask the advice of the fire department, local building officials, your insurance agent, and restoration specialists before starting to clean or make repairs.

## Frequently Asked Questions About Fire Department Actions

### Why did firefighters break windows and cut holes in the roof?

As a fire burns, it moves up, down, and across, growing very fast. Breaking windows and cutting holes in the roof is called *ventilation*. This slows the fire's growth. It helps get rid of dark smoke that makes it hard for firefighters to see. It helps them fight the fire more quickly. In the end, ventilation can help save lives and property.





**Why do firefighters cut holes in walls?**

Firefighters may cut holes in the walls to make sure that the fire is completely out and not hidden in the walls.

**How can I get a copy of the fire report?**

In most areas, a fire report is a public document. Ask for it at the fire department or the fire marshal's office. The fire report will provide you with information your insurance company and other official offices may need.

**What do I do now?****Take care of yourself and family.**

- Contact your local disaster relief service, such as the American Red Cross or the Salvation Army. They will help you find a place to stay and to find food, clothing, and medicine.
- Make sure that you have a safe place to live temporarily. You have a big job ahead of you.
- Get plenty of rest, and ask for help. Do not try to do it all alone.
- Do not eat, drink, or breathe in anything that has been near the flames, smoke, soot, or water used to put the fire out.

**Help your pets.**

If you have pets, find and comfort them. Scared animals often react by biting or scratching. Handle them carefully, calmly, and gently. Try to leave pets with a family member, friend, or veterinarian if you are visiting or cleaning your damaged home. Keep your pets out of the house until the cleanup is complete to keep them safe.

**Security and Safety**

Do not enter a damaged home or apartment unless the fire department says it is safe. Fires can start again, even if they appear to be out. Watch for damage caused by the fire. Roofs and floors may be damaged and could fall down.

The fire department will make sure the utility services (water, electricity, and gas) are safe to use. If they are not safe, firefighters will have your utilities turned off or disconnected before they leave. Do not try to turn them back on by yourself.

Contact your police department to let the police know that you will be away from your home. In some cases, you may need to board up openings so that no one can get in when you're not there.

**Contact your insurance agent.**

Contact your insurance company right away. Ask what to do about the immediate needs of your home. This includes pumping out water and covering doors, windows, and other openings.

Ask your insurance company what to do first. Some companies may ask you to make a list of everything that was damaged by the fire. They will ask you to describe these items in detail and say how much you paid for them.

If you do not have insurance, your family and community might help you get back on your feet. Organizations that might help include

- American Red Cross
- Salvation Army
- Religious organizations
- Public agencies, such as the public health department
- Community groups
- State or municipal emergency services office
- Nonprofit crisis-counseling centers



## Finances

Get in touch with your landlord or mortgage lender ASAP. Contact your credit card company to report credit cards that were lost in the fire, and request replacements. Save all of your receipts for any money you spend. The receipts may be needed later by the insurance company. You will need the receipts to prove any losses claimed on your tax return.

### Tips on How to Handle the Damage

There are companies that are experts in cleaning and restoring your personal items. Whether you or your insurer buys this type of service, be clear on who will pay for it. Be sure to ask for an estimate of cost for the work, and agree to it in writing. You will find the names and phone numbers for companies that do this work in the phone book and on the internet.

Ask your insurance company for names of companies that you can trust. These companies may provide services to do the following:

- Secure your home against more damage.
- Estimate damage.
- Repair damage.
- Estimate the cost to repair or renew items of personal property.
- Store household items.
- Hire cleaning or repair subcontractors.
- Store repaired items until needed.

## The First Days of Recovery

### The Value of Your Home and Personal Belongings

Talk with your insurance company about how to learn the value of your home and property.

### Replacing Valuable Documents and Records

You will want to replace many of the following documents if they were destroyed or lost in the fire:

- Driver's license and auto registration
- Bankbooks (checking, savings, etc.)
- Insurance policies
- Military discharge papers
- Passports
- Birth, death, and marriage certificates
- Divorce papers
- Social Security or Medicare cards

- Credit cards
- Titles to deeds
- Stocks and bonds
- Wills
- Medical records
- Warranties
- Income tax records
- Citizenship papers
- Prepaid burial contract
- Animal registration papers
- Mortgage papers

### Replacing Money

Handle burnt money as little as possible. Try to place each bill or part of a bill in plastic wrap to help preserve it. If money is partly burnt—if half or more is still OK—you can take the part that is left to your regional Federal Reserve Bank to get it replaced. Ask your bank for the one nearest you, or you can take the burnt or torn money to the post office and mail it by "registered mail, return receipt requested" to this address:

#### Department of the Treasury

##### Bureau of Engraving and Printing

Office of Currency Standards

P.O. Box 37048, Washington, DC 20013

Damaged or melted coins may be taken to your regional Federal Reserve Bank or mailed by "registered mail, return receipt requested" to the following:

#### Superintendent U.S. Mint

P.O. Box 400, Philadelphia, PA 19105

To replace U.S. savings bonds that are destroyed or mutilated, get the Department of Treasury Form PD F-1048 (I) from your bank or at <https://www.treasury.gov/>, and mail it here:

#### Department of the Treasury

##### Bureau of the Public Debt

##### Savings Bonds Operations

P.O. Box 1328, Parkersburg, WV 26106-1328

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U.S. Federal Emergency Management Agency (FEMA), U.S. Fire Administration. (2016, June). *After the fire! Returning to normal* (Pub. No. FA-46). Retrieved November 16, 2018, from <https://www.usfa.fema.gov>

# WILDFIRES AND CHILDREN: LONGER TERM AFTERMATH

In the aftermath of wildfires—the recovery phase—children may be exposed to a different set of environmental hazards involving not only their homes, but also nearby structures, land, and recovery activities. Some of these are easy to see, such as broken glass and exposed electrical wires, and others are not, such as soil contaminated with hazardous materials like lead or persisting hot spots, which can flare without warning. Stress from seeing the fires and the emotional responses of those around them can also impact children during this time. Although some of the exposures children may encounter in this setting may cause or worsen health problems (described later), there are important ways that parents can protect their children.

Children, individuals with preexisting lung or cardiovascular problems, pregnant women, elderly, and smokers are especially vulnerable to environmental hazards such as smoke. Children are in a critical period of development when toxic exposures can have profound negative effects, and their exploratory behavior often places them in direct contact with materials that adults would avoid. Key requirements for children to return to an area impacted by wildfires include restored drinking water and sewage removal, safe road conditions, removal of ash and debris, and structurally sound homes. Schools and outdoor play areas should be cleaned and cleared of hazards. Children, and whenever possible, teens, should only be permitted to return after affected areas have been cleaned up. Children should be the last group to return. These recommendations also apply to pregnant women.

## Before Returning to Your Home

- Know the location and status of your nearest medical treatment facility, and verify that the route to reach it is passable.
- Be sure a clean water supply, electricity, and communication system (including 911 access) are restored, reliable, and readily accessible.

- Be certain areas not yet cleaned or not safe are not accessible to children.
- Homes and outdoor areas where children play (e.g., parks, playgrounds, yards) should be clean and free of environmental hazards.
- Thoroughly remove ash at sites where pressure-treated wood was present, such as wooden decks, play structures, and wood chips. Clean the area, as the ash may contain high levels of arsenic if these were pre-2002 structures.
- **Carbon Monoxide Risk**—NEVER use generators, space heaters, or any gas or kerosene appliances in enclosed spaces, as this may result in carbon monoxide poisoning.



## Potential Hazards From Fire Damage

- **Ash**—Recent fires may have deposited large amounts of ash on indoor and outdoor surfaces in areas near the fires. This ash may cause irritation of the skin, nose, and throat, and may cause coughing. Ash and dust (particularly from burned buildings) may contain toxic and cancer-causing chemicals including asbestos, arsenic, and lead. For these reasons children should not be in the vicinity while cleanup is in progress. Even if you are careful, it is easy to stir up dust that may contain hazardous substances.
- **Debris**—Broken glass, exposed electrical wires (whether or not they are "live"), nails, wood, metal, plastics, and other solid objects commonly found in areas of fire damage can cause puncture wounds, cuts, electrical injuries, and burns from smoldering materials.
- **Ash Pits**—Watch for *ash pits*, and mark them for safety. Ash pits are holes full of hot ashes, created by burned trees and stumps. Falling into ash pits or landing in them with your hands or feet can cause serious burns. This underscores the need for children to only enter areas that have been cleaned and examined for safety.
- **Unstable Structures**—Children should not be permitted in the residence or permitted to play on nearby fire-damaged buildings or structures until these have been cleared by their local authorities. Unstable building structures include flooring, stairways, railings, balconies, roofing, and fire escapes.
- **Doors and Entryways**—Materials in storage areas may have moved into unstable positions and could fall. Doors and entryways to storage areas should be opened carefully.

## Hazards From Water Damage

- Water damage to building materials and personal belongings can release potentially hazardous chemicals that could cause rashes, infections, or exposures to toxic substances.
- Wet materials are breeding grounds for bacteria and fungi. Potentially harmful microorganisms grow readily on or in nonrefrigerated food and liquids. They can also grow on damp building materials, personal belongings, and dead animals.

## Utilities

- **Water**—In areas impacted by the fires, water pressure may have been lost or entirely out for periods of time. Check with your water provider to be sure that your water is safe to drink. If your water comes from a private well that has had damage, it may require disinfection. If you are uncertain of the cleanliness of your water, you may heat it to a rolling boil for 1 minute to kill potentially harmful bacteria and other microscopic organisms before drinking. If your water looks dirty, do not drink it.
- **Electricity**—Electrical hazards need to be repaired. Avoid downed or damaged electrical lines.
- **Propane**—If your home propane tank is damaged and leaking, call 911 and your propane service provider. Do not transport leaking barbecue propane tanks in your car or dispose of them in the trash. Contact the hazardous materials section of your local health department for information.

## Preventive Measures

**Personal hygiene is important.** If your children have had contact with any potentially hazardous substance in a fire-damaged area, wash their hands and any other exposed body parts thoroughly with soap and water, or bathe them. Remove any exposed clothing, and wash separately as soon as possible.

## Masks

Use of protective masks is recommended for adults cleaning up areas at which ash particles cannot be controlled. Although smaller sized masks may appear to fit a child's face, no manufacturer recommends their use in children. If your children are in an area that warrants wearing a mask, you should take them to an area with cleaner air.

## Food

Loss of power to refrigeration and freezer units can cause food to spoil (e.g., meats, milk, and egg products). Do not feed children such foods that have warmed close to room temperature for more than 2 hours. Immediately discard cooked and uncooked foods that may have spoiled. Frozen foods that have thawed to room temperature for more than 2 hours should also be

thrown away. If food smells bad or looks bad, or if you're just not sure it's safe, throw it out. Also, discard any food that may have come in contact with hazardous materials, such as fire retardant or ash. When in doubt, throw it out!

### Psychological Hazards

During the recovery phase, children may experience significant anxiety and grief from the loss and trauma related to having lived through a natural disaster. Children may suffer from fears connected to the smell of smoke, feelings of anxiety when weather conditions indicate a potential for fires, or overwhelming guilt at having survived the wildfires with little or no damage to their property. If children experience the loss of a loved one or their home, their sense of personal safety and security is often destroyed as well.

Parents and caregivers may observe children displaying one or several of the following reactions during the recovery stage:

- Irritability, fatigue, indifference
- Health complaints such as stomachaches, headaches, general complaints of feeling unwell
- Clinging; difficulty separating, returning to "babyish" behaviors
- Eating or sleeping too much or too little, nightmares
- Difficulty concentrating or focusing at home or on schoolwork
- Aggression or outbursts of anger, fears

Parents and caring adults can provide significant support to children during times of emotional distress. Even if the family relocates to temporary housing, the sooner routines previously in place are reestablished, the more quickly children will begin to experience the return of feelings of security and safety. Parents should reassure children that their feelings and fears are normal and should encourage them to express their emotions with words, play, and writing.

The following recommendations will help children experiencing significant emotional challenges as a result of the recent wildfires:

- Maintain continuity and familiar routines in the child's life, both at home and at school.
- Listen, listen, listen with an open heart and mind, without judging or attempting to fix the problem.
- Imagine how the child feels; let children know their feelings are normal.
- Encourage expression of feelings through conversation, role-playing, music, visual art, and writing (letters, diaries, journals).
- Provide honest and accurate answers to the questions children ask, keeping in mind the child's age and ability to make sense of your response.
- Reassure them with words, for children gain confidence and comfort from your strength.
- Provide hugs and comforting touches, remembering children thrive on loving human contact.
- Practice patience. Children may need a bit more time and encouragement, as well as overall understanding at this time.
- Emphasize a child's personal strengths and help the child recognize his or her coping skills already in place.
- Help children to see there were heroes and helpers who tried to make things better for the community during a time of need.

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U.S. Environmental Protection Agency (EPA) & California Environmental Protection Agency, Air Resources Board (ARB). (Revised 2016, May). Appendix E: Pediatric Environmental Health Specialty Units (PEHSU) information on health risks of wildfires for children – Aftermath guidance for parents and community members. In *Wildfire smoke: A guide for public health officials* (pp. 70–74). Retrieved November 16, 2018, from <https://www.epa.gov/>

## WORKPLACE CONSIDERATIONS

# PROTECTING INDOOR WORKERS FROM WILDFIRE SMOKE

Windborne wildfire smoke can be a hazard for people who work in office and commercial buildings many miles from evacuation zones. Environmental and public health agencies have advised people that they should consider setting air conditioners in their homes to recirculation mode, if possible, in order to reduce the intake of pollutants. Subsequently, people have asked whether this advice to limit the introduction of outdoor air applies to office and commercial buildings. Eliminating or substantially reducing the outdoor air supply in office buildings and other indoor workplaces as a first step to reduce exposure to smoke is generally not recommended.

The ventilation systems in office buildings and other commercial buildings are more complicated than home air-conditioning systems. Changing the outdoor air supply in public and commercial buildings can adversely affect other essential functions of the building. These buildings typically have heating, ventilating, and air-conditioning systems (HVAC systems) that bring outside air into the building through filters, blend it with building return air, and thermally condition the air before distributing it throughout the building. These buildings also have exhaust-air systems for restrooms and kitchens, and may also have local exhaust systems for garages, laboratory fume hoods, or other operations. These exhaust systems require makeup air (outdoor air) in order to function properly. Also, without an adequate supply of outdoor air, these systems may create negative pressure in the building. This negative pressure will increase the movement of unfiltered air into the building through any openings, such as plumbing and sewer vents, doors, windows, junctions between building surfaces, or cracks. In general, buildings should be operated at slight positive pressure in order to keep contaminants out and to help exhaust air systems function properly.

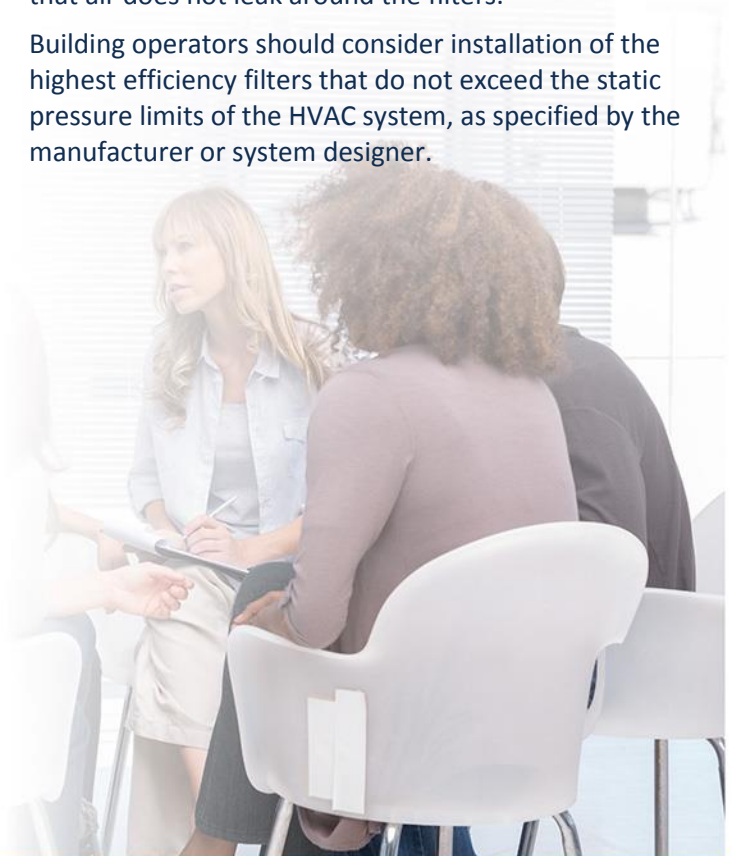
HVAC systems should be operated continuously while occupied in order to provide the minimum quantity of outdoor air for ventilation, as required by the standards or building codes to which the building was designed.

(For many office buildings, this is often in the range of 15-20 cubic feet per minute [cfm] per person, although it could be less in older buildings.)

## Using the HVAC System to Protect Building Occupants From Smoke

As a first step to protect building occupants from outdoor air pollution, including the hazardous conditions resulting from wildfire smoke, building managers and employers should ensure that the HVAC system filters are not dirty, damaged, dislodged, or leaking around the edges. Before the wildfire season, or during smoke events if necessary, employers and building operators should ensure that a qualified technician inspects the HVAC system, makes necessary repairs, and conducts appropriate maintenance. Filters should fit snugly in their frames and should have gaskets or sealants on all perimeter edges to ensure that air does not leak around the filters.

Building operators should consider installation of the highest efficiency filters that do not exceed the static pressure limits of the HVAC system, as specified by the manufacturer or system designer.



## WORKPLACE CONSIDERATIONS

(Many existing HVAC systems should be able to accommodate pleated, medium-efficiency filters with particle removal ratings of MERV 6 to 11, and some may be able to use filters with ratings of MERV 12 or higher. Consider a low-pressure HEPA filter (MERV 17 plus) if the building occupants have respiratory or heart disease conditions, or if the building experiences frequent wildfire episodes.)

Pressure gauges should be installed across the filter to indicate when the filter needs replacing, especially in very smoky or dusty areas. Indoor contaminants can be further reduced by using stand-alone high-efficiency particulate air (HEPA) filtering units.

In some circumstances, it may be helpful to reduce the amount of outdoor air in order to reduce smoke pollution inside the building, while still maintaining positive pressure in the building. Temporary reductions in outdoor airflow rates might be considered when all of the following conditions are met:

1. The local outdoor air quality for particulate matter meets the Environmental Protection Agency (EPA) Air Quality Index (AQI) definition of *unhealthy, very unhealthy, or hazardous* due to wildfire smoke.
2. A qualified HVAC technician has inspected the HVAC system and ensured that the filters are functioning properly, that the filter bank is in good repair, and that the highest feasible level of filtration has been provided. This should be documented in writing.
3. A qualified HVAC technician or engineer has assessed the building mechanical systems and determined, in writing, the amount of outside air necessary to prevent negative pressurization of the building and to sufficiently ventilate any hazardous processes in the building (such as enclosed parking garages or laboratory operations).
4. The HVAC system is operated continuously while the building is occupied to provide at least the minimum quantity of outdoor air needed, as determined by the HVAC technician or engineer.
5. The employer or building operator ensures that the systems are restored to maintain the minimum quantity of outdoor air for ventilation, as required by the standards or building codes to which the building was designed, no later than 48 hours after the particulate matter levels fall below the levels designated by the EPA as *unhealthy*.

### Other Actions to Protect Employees From Wildfire Smoke

In addition to assessing and if necessary modifying the function of the HVAC system, employers are encouraged to take other reasonable steps to reduce employee exposure to smoke, including alternate work assignments or relocation and telecommuting. Some buildings rely on open windows, doors, and vents for outdoor air, and some may have mechanical ventilation systems that lack a functioning filtration system to remove airborne particles. In these cases, the employees may need to be relocated to a safer location. Employees with asthma, other respiratory diseases, or cardiovascular diseases should be advised to consult their physician for appropriate measures to minimize health risks.

Respirators, such as N95s and other filtering face-piece respirators, may provide additional protection to some employees against environmental smoke. Employees whose work assignments require the use of respirators must be included in a respiratory protection program (including training, medical evaluations, and fit-testing). However, employers may consider providing filtering face-piece respirators to employees who voluntarily choose to use them to protect themselves against environmental smoke (in this situation employers are not required to provide a medical evaluation or fit-test). Employers should tell these employees that the respirator will provide some protection against the particles in smoke, but that it will not provide complete protection and that a respirator that has not been fit-tested may not provide the maximum level of protection. Employees should be told that the respirator does not protect against gases or vapors. Although a medical evaluation is not required, the employer should advise employees to consult their doctor about potential exposures to smoke and respirator use, particularly if they have certain health problems such as respiratory or heart conditions. Employees should also be provided any additional information as required by state and local regulations.

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U.S. Environmental Protection Agency (EPA) & California Air Resources Board (ARB). (Revised 2016, May). Appendix A: Guidance on protecting workers in offices and similar indoor workplaces from wildfire smoke (adapted from Cal/OSHA). In *Wildfire smoke: A guide for public health officials* (pp. 50–53). Retrieved November 16, 2018, from <https://www.epa.gov/>

# ONLINE RESOURCES

The **U.S. Fire Administration** has a great selection of fire-prevention resources on its website. In addition to the resources. This page offers recommended messages to post on Facebook and Twitter, images and buttons you can download and customize, flyers and posters, and stock images you can use on your own materials!  
<https://www.usfa.fema.gov/prevention/outreach/wildfire.html>

Join the **Ready, Set, Go!** (RSG) program, managed by the International Association of Fire Chiefs. The program helps firefighters to teach people who live in high-risk wildfire areas how to prepare against fire threats.  
<http://www.wildlandfirersg.org/>

Visit the **American Red Cross** homepage on wildfire relief, which also has a link to the updates on the California fires.  
<https://www.redcross.org/about-us/our-work/disaster-relief/wildfire-relief.html>

Also read their page on fire-safety tips:  
<https://www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/wildfire.html>

The **Firewise Program** is a multiagency effort to help homeowners, community leaders, planners, and developers work together to protect people, property, and natural resources from the risk of wildland fire. The program emphasizes responsible community design, including fire-resistant building materials and landscaping.

<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA>

## **Wildfires: Protect Yourself and Your Community** **[Poster/Infographic]**

This double-sided one-page flyer contains safety tips for protecting homes from wildfires, and it provides a space for you to include your organization's logo!

- English:  
[https://www.usfa.fema.gov/downloads/pdf/publications/wildfires\\_protect\\_yourself\\_and\\_your\\_community.pdf](https://www.usfa.fema.gov/downloads/pdf/publications/wildfires_protect_yourself_and_your_community.pdf)
- Spanish:  
[https://www.usfa.fema.gov/downloads/pdf/publications/wildfires\\_protect\\_yourself\\_and\\_your\\_community\\_spanish.pdf](https://www.usfa.fema.gov/downloads/pdf/publications/wildfires_protect_yourself_and_your_community_spanish.pdf)





**Fires and Wildfires: Health Information Guide** (disaster info from the National Library of Medicine)  
<https://disasterinfo.nlm.nih.gov/wildfires>

**Helping Children After a Wildfire: Tips for Parents and Teachers** (National Association of School Psychologists)  
<http://www.nasponline.org/resources-and-publications/resources/school-safety-and-crisis/natural-disaster/helping-children-after-a-wildfire-tips-for-parents-and-teachers>

**Air Quality Index (AQI)**  
<https://airnow.gov/index.cfm?action=aqibasics.aqi>

**AirNow**  
<https://airnow.gov/>

**Wildland Fire / Air Quality Tools** (set up by Google)  
<https://sites.google.com/firenet.gov/wfaqrp-airfire-tools/>

**Wildland Fire Air Quality Response Program Tool**  
The Wildland Fire Air Quality Response Program (WFAQRP) was created to directly assess, communicate, and address risks posed by wildland fire smoke to the public as well as fire personnel.  
<https://wildlandfiresmoke.net/>

**Smokey Bear**  
The Smokey Bear website has tons of information and toolkits about wildfires.  
<https://smokeybear.com/en/about-wildland-fire>

**Wildfire Safety Social Media Toolkit**  
<https://www.ready.gov/wildfire-toolkit>

**When the Fire Starts [Preparedness Video]**  
<https://www.youtube.com/watch?v=tWhTdfHQWqs&feature=youtu.be>

**United States Fire Administration**  
<https://www.usfa.fema.gov/>

**United States Forest Service**  
<https://www.fs.fed.us/>

**How to Prepare for a Wildfire [Playbook]**  
[https://www.fema.gov/media-library-data/1409003859391-0e8ad1ed42c129f11fbc23d008d1ee85/how\\_to\\_prepare\\_wildfire\\_033014\\_508.pdf](https://www.fema.gov/media-library-data/1409003859391-0e8ad1ed42c129f11fbc23d008d1ee85/how_to_prepare_wildfire_033014_508.pdf)

**Prepare Your Organisation: A Wildfire [Playbook]**  
[https://www.fema.gov/media-library-data/1409937019793-e22ea047bb7d748194b5e1cf96f31d9a/prepareathon\\_playbook\\_wildfire\\_final\\_090414\\_508.pdf](https://www.fema.gov/media-library-data/1409937019793-e22ea047bb7d748194b5e1cf96f31d9a/prepareathon_playbook_wildfire_final_090414_508.pdf)

**Your Role in Fire-Adapted Communities [Guide]**  
This teaches how the fire service, local officials and the public can work together for wildland fire safety.  
[https://www.usfa.fema.gov/downloads/pdf/publications/fire\\_adapted\\_communities.pdf](https://www.usfa.fema.gov/downloads/pdf/publications/fire_adapted_communities.pdf)

**The National Cohesive Wildland Fire Management Strategy**  
This focuses on restoring and maintaining landscapes, fire-adapted communities and response to fire.  
<https://www.forestsandrangelands.gov/strategy/thestrategy.shtml>

**Protecting Your Home from a Wildland Fire**  
Review tips from the National Interagency Fire Center on communicating about wildland fire.  
[https://www.nifc.gov/prevEdu/prevEdu\\_main.html](https://www.nifc.gov/prevEdu/prevEdu_main.html)

**Fire Prevention and Public Education Exchange**  
The Exchange serves as a centralized location for national, state and local fire prevention and life safety practices and public education materials that organizations may wish to share with other communities.  
<https://www.usfa.fema.gov/data/library/collections/exchange.html>

**Wildland Urban Interface (WUI) toolkit**  
This collection of recommended resources will help your fire department prepare for, and respond to, WUI fires. Included are outreach materials, training courses, assessment tools, and links to the latest WUI research studies.  
[https://www.usfa.fema.gov/wui\\_toolkit/](https://www.usfa.fema.gov/wui_toolkit/)

## **International Association of Fire Chiefs/Fire-Adapted Communities**

<https://www.iafc.org/topics-and-tools/wildland/fire-adapted>

## **NFPA Educational Messages Desk Reference**

These messages provide fire and life safety educators with accurate and consistent language for use when offering safety information to the public.

<http://www.nfpa.org/Public-Education/Resources/Educational-messaging>

## **Wildland Urban Interface Wildfire Mitigation Desk Reference Guide**

This provides basic information on programs and terminology for community members and agency personnel seeking to enhance their community's wildfire mitigation efforts.

<https://www.nwccg.gov/sites/default/files/publications/pms051.pdf>

**U.S. Forest Service** site offers many programs and materials on wildland fire prevention and education.

[https://www.fs.fed.us/fire/prev\\_ed/index.html](https://www.fs.fed.us/fire/prev_ed/index.html)

## **Wildfire Banners and Web Badges**

<https://www.fema.gov/media-library/assets/documents/94891>

**Anthem.** 



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