

Wildfires pose threats to heart health as well as to land and infrastructure

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Extreme heat and dry conditions are sparking wildfire breakouts across much of the country this summer. While those fires are threatening homes, businesses and land, according to the American Heart Association, they're also threatening heart health.

Several studies following wildfires in California in recent years linked

[smoke exposure](#) to an increased risk of sudden cardiac arrest and a higher volume of visits to local emergency rooms for cardiovascular disease-related causes.

- A study published in the [Journal of the American Heart Association](#) in 2020 found that exposure to heavy smoke during wildfires raised the risk of out-of-hospital cardiac arrests up to 70%. The risk was elevated among men and women, among adults 35-64 years old and in communities with lower socioeconomic status.
- Previous findings from the same research group noted that wildfire smoke exposure was associated with increased rates of emergency room visits, not just for breathing trouble, but also [ischemic heart disease](#), irregular heart rhythm, heart failure, pulmonary embolism and stroke. ER visits increased 42% for heart attacks and 22% for ischemic heart disease within a day of exposure to dense wildfire smoke. The increase was most notable for adults age 65 and older, according the study published in the [Journal of the American Heart Association](#) in 2018.

"While most people are aware of the respiratory health dangers of breathing wildfire smoke, we often forget the what impact it may have on short- and long-term cardiovascular health. It's important for people to recognize there is an increased risk," said Fire Chief of the Memphis (Tenn.) Fire Department and American Heart Association volunteer Gina Sweat. "Wildfire smoke contains a lot of pollutants including fine, microscopic particles linked to [cardiovascular risk](#). As the fires spread, they aren't just burning trees and woodlands—they're also igniting buildings, cars and recreational vehicles, entire community infrastructures. Many of these fires are massive and burning out of control, with that contaminated smoke traveling miles beyond the immediately affected area."

People with underlying cardiovascular disease risk factors may be at risk for an acute cardiovascular event when exposed to wildfire smoke.

According to the American Heart Association, recognizing the [signs of a heart attack or stroke](#) are important, and if you or someone you're with is experiencing serious symptoms, call 9-1-1 immediately. In areas affected by wildfires, road closures may make it especially difficult to get to a hospital and emergency personnel will know the most up-to-date information to get needed help. Knowing and performing CPR in the event of a cardiac arrest is also helpful.

Wildfires in [rural areas](#) can be especially challenging for several reasons. Emergency response times may be longer due to travel distances, and fires may burn out of control longer before being noticed in rural areas due to lower population densities.

To reduce exposure to [wildfire](#) smoke, Sweat advises people who are not in immediate danger to stay indoors with doors and windows closed, to use high-efficiency air filters in air conditioning systems. Avoid exertion, keep well hydrated and consider seeking other shelter if your home does not have an air conditioner and it's too warm to stay inside. Follow local law enforcement orders and make early preparations to evacuate the area in case that becomes necessary.

"Although it's hard to say where wildfires may break out, be alert and prepared all around during high risk seasons such as the fall and even the summer with our [extreme heat](#) waves," Sweat said. "Having an emergency preparedness plan is always a good idea, whether you're dealing with wildfires, earthquakes, hurricanes or floods. Especially if you have an existing health condition, you'll want to have a list of your medications and the numbers for your health care clinicians and pharmacies in case you need to evacuate your home."

According to Sweat, being prepared may not only keep you safe from

the fires, it's another way to protect your heart, because mental and physical stress also takes a toll on your cardiovascular health and can weaken your overall immune system.

More information: The American Heart Association has a number of resources to help at www.heart.org.

Provided by American Heart Association

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