



# Spotlight on Climate

## How Does Climate Change Affect Our Health?

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(700 words)

As global temperatures rise, extreme temperatures are happening more often and lasting longer. All of us have the potential to be physiologically stressed by high heat, and it frequently exacerbates pre-existing illnesses and causes early mortality.

Climate affects many life choices, such as where you live, what job you do, and how and when you recreate. For many of us, climate change is now impacting those choices, but what if you cannot move or find a new career?

There were 3,091 heat-related deaths in Arizona between 2010 and 2020 as reported by the Arizona Department of Health Services. The report also noted that floods were only the second most hazardous weather event, accounting for just 35 fatalities over the same time span.

In the Southwest, we have seen increases in the number of days with extreme heat, high fire danger days, prolonged fire seasons, droughts, and worse flooding. These changes in the climate are collectively increasing the number of illnesses, deaths, and injuries.

Heatwaves are like silent killers due to their irregular pattern and people's short memory of them once cooler temperatures return. Anyone can suffer from heat-related illness when they are exposed to temperatures greater than the body can sufficiently cool through sweating. Rashes, cramps, weakness, disorientation, exhaustion, fainting, nausea, vomiting, severe thirst, profuse perspiration, and headache are some of the warning signs and symptoms of heat-related disorders. People who already have heart issues like congestive heart failure or high blood pressure are more vulnerable since the heat makes the heart work harder to keep the body cool.

Particularly vulnerable are the elderly, disabled, children, homeless, and individuals with preexisting heart and lung conditions such as diabetes, COPD, and asthma. Pregnant women, outdoor workers, and athletes are most susceptible to heat-related illnesses such as heat cramps, heat syncope (fainting), heat edema (swelling of one's hands and/or legs), heat stroke, heat exhaustion, and dehydration. People who are low-income, poorly resourced, or live in rural communities are particularly threatened. The Centers for Disease Control and Prevention found that crop workers have a higher fatality rate from heat-related illnesses than any other U.S. civilian worker.

People in Phoenix who can't afford to cool their homes are disproportionately affected by extreme heat. For a cooler weekend or summer, many who can afford it rent or own second homes in Flagstaff. Economically marginalized people are frequently hardest hit by climate change. A billion-dollar plan to relocate the hospital from the heart of the city to the outskirts of Flagstaff is currently being explored. Will this make it more difficult for those with limited resources to access hospital services when they need it most? Will this increase the price of urgently required medical care? Additionally, if a fire were to start in un-thinned forest to the

south or west, this hospital on the outskirts could be at high risk from crown fires, right when a hospital would be needed most.

Rising temperatures exacerbate the production of key air pollutants. Smoke from wildfires can damage our lungs and heart and contribute to premature death. The WHO estimates that 7 million people die yearly from air pollution exposure. In the Southwest, dust storms, allergens, smoke, and ground-level ozone pollution exacerbate cardiovascular and respiratory illnesses. Drier conditions can increase fungus spread in dust, increasing Valley Fever cases.

You may suffer physical and mental side effects because of climate change. The psychological costs of new climate extremes and risks are very real. The frequency, severity, and duration of temperature events, as well as the level of climate acclimatization and adaptation of the local population, infrastructure, and institutions, all influence the scale and nature of the health effects of heat.

What action can you take? Particularly at night, go to your home's coldest room. Whenever possible, stay inside during the hottest part of the day. If you must engage in vigorous activity, do it between 4:00 and 7:00 in the morning, which is often the coolest time. Keep to the shadows. **Never** leave kids or pets inside parked cars. Check on relatives, acquaintances, and neighbors who spend much time alone. On hot days, they could require your assistance. And, of course, lower your carbon footprint to slow down climate change.

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