

US EPA ARCHIVE DOCUMENT

Climate Change and the Health of People with Existing Medical Conditions

Understanding the threats that climate change poses to human health can help us work together to lower risks and be prepared.

Climate change threatens human health, including mental health, and access to clean air, safe drinking water, nutritious food, and shelter. Everyone is affected by climate change at some point in their lives. Some people are more affected by climate change than others because of factors like where they live; their age, health, income, and occupation; and how they go about their day-to-day life.

People with existing medical conditions are at increased risk for illness and death from climate change-related impacts on health, including changing exposures to extreme heat, extreme weather events, and poor air quality. Existing medical conditions can make individuals more sensitive to these exposures, increasing the potential for health impacts and worsening symptoms. For example, individuals with respiratory conditions are more likely to be negatively affected by exposure to poor air quality than those without these conditions. In addition, some underlying health conditions can make it difficult for a person to limit their exposure or adapt to risks. For example, individuals with Alzheimer's disease may have difficulty responding to and evacuating during an extreme weather event. Certain medications may also impair the body's ability to regulate temperature or maintain fluid or electrolyte balances. The number of people with common chronic medical conditions (such as cardiovascular disease, diabetes, obesity, and

respiratory diseases including asthma) is expected to increase over the coming decades. This means more people will be at risk of medical complications from climate change-related exposures.

What is climate change and why does it matter for health?

We've all heard of it, but what exactly is climate change? Greenhouse gases act like a blanket around Earth, trapping energy in the atmosphere. Human activities, especially burning fossil fuels for energy, increase the amount of greenhouse gases in our atmosphere and cause the climate to warm. **Climate** is the typical or average weather for an area. **Climate change** is any change in average weather that lasts for a long period of time, like warming temperatures. Climate change affects the food we eat, the air we breathe, and the water we drink. It also leads to extreme weather events, like flooding, droughts, and wildfires. All of these impacts affect human health.

People with chronic medical conditions and their families or caregivers can start taking steps now to protect themselves against the negative impacts of climate change. Community members can also take part in local decision-making, especially emergency and urban planning. Discussions like these raise awareness and can help communities address the needs of all residents.

If you have the following illnesses then you should be aware that...

Heart Disease. Drugs used to treat heart diseases, such as diuretics and beta-blockers, can make people with heart disease more sensitive to heat stress.

Diabetes. Diabetes increases sensitivity to heat stress. Extreme weather events can also present challenges for diabetics because these events can limit access to healthcare, medicine, and food needed to stay healthy.

Asthma and Chronic Obstructive Pulmonary Disease (COPD). Patients with asthma and COPD are more sensitive than the general population to changes in outdoor air quality made worse by climate change. These lung conditions can be aggravated by smoke from more frequent and longer-lasting wildfires, longer pollen seasons, and more ground-level ozone (a component of smog).

Alzheimer's Disease. Alzheimer's disease can impair judgment and responses in a crisis situation, such as an extreme weather event, which can place people at greater risk.

Mental Illness. Some medications for certain mental illnesses can increase sensitivity to heat stress. Extreme weather events may also disrupt communication lines and social support networks that people with mental illnesses need to stay healthy.



This fact sheet is based on "The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment." To explore the full report, go to:

<https://health2016.globalchange.gov>

Learn More

Centers for Disease Control and Prevention:

Air Pollution & Respiratory Health

<http://www.cdc.gov/nceh/airpollution/>

Centers for Disease Control and Prevention: Diabetes Emergency Preparedness

<http://www.cdc.gov/diabetes/managing/preparedness.html>

Centers for Disease Control and Prevention: Disaster Information for People with Chronic Conditions and Disabilities

<http://emergency.cdc.gov/disasters/chronic.asp>

Centers for Disease Control and Prevention: Heat and People with Chronic Medical Conditions

<http://www.cdc.gov/extremeheat/medical.html>

Climate Change: Human Health

<https://www3.epa.gov/climatechange/impacts/health.html>

Climate Change: What You Can Do

<https://www3.epa.gov/climatechange/wycd/>