If you’ve been diagnosed with diabetes or metabolic syndrome, a precursor to diabetes and cardiovascular disease, you may be more vulnerable to environmental hazards, such as air pollution and extreme heat.
Diabetes is More Common Among Minorities

In 2001, diabetes was the 5th leading cause of death for Native American and Hispanic women and the 6th leading cause of death for Native American and Hispanic men. Diabetes occurs more often in African Americans; Native Americans; some Asian Americans, Native Hawaiians and other Pacific Islander Americans; and Hispanics. Non-Hispanic blacks report significantly higher levels of diabetes, compared with non-Hispanic whites (23% compared to 14%). Hispanics also report higher levels of diabetes than non-Hispanic whites (24% compared to 14%)\(^4\).

Environmental Factors Can Affect the Health of Persons with Diabetes

Air Quality

People living with diabetes are considered at high risk for adverse health effects from exposure to harmful particles, or air pollution found both indoors and outdoors. Breathing in harmful particles from air pollutants (for example, smoke, vehicle exhaust, industrial emissions and haze from burning fossil fuels) may increase your risk of heart attack and stroke.

A recent study found that in adults living with diabetes the ability of their blood vessels to control blood flow was decreased on days with high levels of particles from traffic and coal-burning power plants. Decreased blood flow has been associated with an increased risk of heart attack, stroke and other heart problems. Other studies have shown that when air pollution levels are high, people with diabetes have higher rates of hospitalization and death related to cardiovascular problems\(^5,6\).

Extreme Heat

Exposure to temperatures above 90 degrees Fahrenheit can be very dangerous, especially when humidity is also high. Having diabetes can make it more difficult for your body to regulate its temperature\(^7\) during extreme heat. If you’re living with diabetes, you should take precautions during periods of extreme heat. Avoiding exposure to extreme temperatures is the best defense. Air-conditioning is one of the best ways to protect against heat-related illness and death\(^8\).
What Can You Do to Minimize Exposure to Environmental Hazards?

**LIMIT CONTACT WITH ENVIRONMENTAL FACTORS**

- **Reduce exposure to traffic and outdoor air pollution**
  Pay attention to Air Quality Index (AQI) forecasts to learn when the air is unhealthy for sensitive groups. Check with your healthcare provider about lowering your activity level when the AQI is high. If there is smoke outside of your home from forest or other types of fires, or if you live in a multi-family building and there is cooking smoke or fumes in the building, put your air conditioning on the re-circulate mode and keep windows closed until the smoke has cleared. Reduce your time in traffic. Avoid physical activity. Limit exercise near busy roads.

- **Keep smoke out of indoor spaces**
  Avoid tobacco smoke. When you can, ask smokers to smoke outdoors. Choose smoke-free restaurants, bars and other public places. Properly vent wood-burning stoves and fireplaces.

- **Use caution when working around the house**
  If you plan indoor painting activities, schedule it when windows and doors can be left open and use fans to ventilate the area. Take frequent fresh-air breaks; avoid painted rooms for several days.
  Before renovating a home built before 1978, take precautions to avoid lead paint exposure. Do not use a belt-sander, propane torch, heat gun, dry scraper or dry sandpaper to remove lead-based paint. These generate unacceptable amounts of lead dust and fumes.

- **Protect yourself during periods of extreme heat**
  Use your air-conditioner or go to air-conditioned buildings in your community. Take a cool shower or bath. Wear lightweight, light-colored and loose-fitting clothing. Ask your doctor or nurse if your medications increase your susceptibility to heat-related illness.
  Drink lots of fluids, but avoid beverages containing caffeine or alcohol. These drinks can cause dehydration and increase your carbohydrate load.
  If a doctor limits your fluid intake, be sure to ask how much you should be drinking during extreme heat events.
EPA's Aging Initiative is working to protect the health of older adults from environmental hazards through risk management and prevention strategies, education, and research. For more information about EPA's Aging Initiative, visit [www.epa.gov/aging](http://www.epa.gov/aging).

Additional Resources:

- **U.S. EPA**
  Indoor Air Quality: [www.epa.gov/iaq/](http://www.epa.gov/iaq/)
  Air Quality Index: [www.epa.gov/airnow](http://www.epa.gov/airnow)


- American Diabetes Association [www.diabetes.org](http://www.diabetes.org)

Endnotes


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