



Earth Gauge™ Washington D.C – Public Health Environmental Information for Broadcast Meteorologists

This fact sheet is part of a series on key weather-environment topics for the DC Metropolitan area. The Earth Gauge™ Healthy Communities project is designed to provide basic background information on environmental impacts in major U.S. urban areas, as well as simple messages meteorologists can deliver to their viewers.

Not only does the weather impact the environment, it can also impact your health. While everyone is susceptible to weather-related health problems, poor air quality and water quality, extreme heat, and other weather conditions can be especially dangerous for sensitive groups – the elderly, children, and individuals with chronic health conditions.

How Does Weather Affect My Health?



Poor air quality is a serious problem for the more than 20 million American individuals living with asthma. Ground-level ozone pollution, created by a reaction between air pollutants and sunlight, can aggravate asthma and other lung conditions. Particle pollution in the air can cause problems for asthmatics and individuals with cardiovascular disease.



Currently in Washington D.C., only two-thirds of the sewer systems are separated. This means that one-third of the sewers are still combined, carrying both sewer water and street run off. Heavy rain events and flooding can overload the system, discharging a combination of rain water and sewage into our local streams and rivers. Bacteria and viruses contained in the overflow can cause health problems for individuals coming in contact with the water, and can result in closures of recreation, fishing, and swimming areas.



Extreme heat events are expected to increase in future years. Extreme heat events can result in illnesses such as heat exhaustion and heat stroke, and are often coupled with poor air quality and stagnant air that exacerbate health problems.



Nice weather offers an excellent opportunity for individuals to get outside, get the recommended 30 minutes of exercise each day, and reconnect with natural areas in the Washington D.C. area.

Learn More about Weather and Public Health

The Centers for Disease Control (CDC) offer extensive resources on the health effects of extreme weather events and natural disasters, including extreme heat, floods, hurricanes, tornadoes, and others. www.bt.cdc.gov/disasters

Designing and Building Healthy Places, a CDC program, address health issues related to land use – accessibility, children and elders' health, physical activity, air quality and respiratory health, water quality, and others. www.cdc.gov/healthyplaces

Flip this page over to find simple messages and tips about weather and public health you can use during your on-air weather report.



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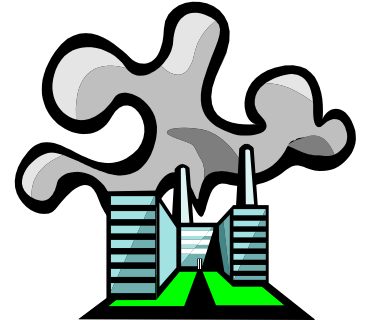
Making the Connection: What You Can Say On-Air

Here are some simple facts and tips you can provide to your viewers to help make the connection between weather and public health. Help your viewers understand how they can protect their health.

Asthma Avoidance

While the average adult breathes in about 3,000 gallons of air each day, children breathe in even more air per pound of body weight, making them more susceptible to health problems from air pollution. High levels of air pollution can trigger asthma attacks and other health problems for individuals with chronic lung conditions.

Viewer Tip: There are easy steps you can take to reduce exposure to air pollution. Use the air quality forecast provided by your local meteorologist or visit www.airnow.gov to find out when pollution levels are likely to be high, and try to stay indoors during those times. If you do go outside, avoid strenuous exercise (such as running) to reduce your risk.



Overflow!

Parts of D.C. have a combined sewer system, meaning that pipes are designed to carry both wastewater and rainwater. During heavy rains, this system can become overloaded, and both wastewater and rainwater overflow into the nearest stream or river. In an average year, more than 1.4 billion gallons of combined sewer overflow will enter the Anacostia River, more than 952 million gallons will enter the Potomac, and more than 52 million gallons will enter Rock Creek.

Viewer Tip: During rain events, you can help to lower the load on DC's combined sewer system by conserving water. Hold off on activities that use large amounts of water, such as running the dishwasher or washing machine, and make sure that outdoor sprinklers are turned off during rain events.

Heat and Age

High temperatures, coupled with high humidity, can create dangerous health conditions. These unhealthy conditions can be especially noticeable in cities, where "hard" surfaces absorb and trap heat, and hot air traps pollutants. Older people can be especially vulnerable to heat-related illnesses because the ability to respond to hot weather becomes less efficient with age.

Viewer Tip: Older individuals - especially those with special health conditions - should try to stay indoors on hot, humid days, particularly when air pollution levels are elevated. If you don't have a fan or air conditioner, try to get to a mall, library, movie theater, or other air-conditioned community building to cool off (many communities offer cooling centers during heat waves). If you have an older relative or friend, check in with them often to make sure they are coping with the heat.



School Haze?

In the mornings, 20 to 25 percent of American commuter traffic is made up of parents driving their children to school! As traffic increases, many parents feel even less inclined to have their children walk or bike to school.

Viewer Tip: Encouraging children to walk or bike to school on nice days can cut down on traffic and subsequent air pollution from cars that can trigger childhood respiratory problems, including asthma. You can help your kids find a safe route to school, or even walk with them in the mornings. If you drive your children to school, consider setting up a carpool with other parents in the neighborhood to cut down on the number of drivers in the morning.