

Outdoor Air Quality & Your Health



Why is outdoor air quality a health issue?

- The air we breathe contains pollution that can harm our bodies if the amounts are at unhealthy levels. As we breathe in these pollutants, they can irritate our eyes, nose and throat, and impact our respiratory and circulatory systems. These impacts can be minor and disappear when the air quality improves. Or they can permanently damage our bodies if the pollution levels are high enough, if people are exposed over long periods, or if people are unusually sensitive to their effects because of existing health conditions. Evidence shows that air pollution can contribute to more cases of asthma and greater frequency of asthma attacks. Air pollution can also be a risk for premature death, and a contributor to heart and respiratory disease, possible stroke and lung cancer.

Learn more about outdoor air pollution and its effect on health.....

- <http://www.cdc.gov/air/default.htm>
- <http://www.webmd.com/lung/features/outdoor-pollution-and-lung-function-effects>
- <http://www.webmd.com/lung/news/20051003/air-pollutions-health-risks-underestimated>
- <http://lae.mit.edu/air-pollution-causes-200000-early-deaths-each-year-in-the-u-s/>
- <http://www.cancer.org/cancer/news/world-health-organization-outdoor-air-pollution-causes-cancer>
- <http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>
- <http://www.healtheffects.org/International/GBD-Press-Release.pdf>
- <http://www.lung.org/healthy-air/outdoor>
- <http://www.lung.org/about-us/our-impact/top-stories/making-the-connection-asthma-and-air-quality.html>



What are the main pollutants in our air?

- Some of the most common air pollutants found in the United States are ozone, particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide and lead. These can be in form of gas or particles suspended in the atmosphere. These six pollutants are classified as “criteria” pollutants. In addition to damaging human health, these pollutants can also harm the environment and damage property.

Learn more about common air pollutants and their sources.....

- <http://www.epa.gov/air/urbanair>
- http://www.epa.vic.gov.au/air/aq4kids/main_pollutants.asp
- <http://www.epa.gov/airquality/emissns.html>



Who regulates air quality?

- The Clean Air Act of 1970 required the U.S. Environmental Protection Agency to establish national standards for the six criteria pollutants. These standards set limits on the amount of pollution that can be discharged into the air from stationary sources (like power plants, manufacturing plants and businesses) and mobile sources (like cars, trucks, buses, etc.). In Ohio, enforcement of these standards is the responsibility of the Ohio Environmental Protection Agency (OEPA). OEPA monitors the air to determine if the allowable levels of criteria pollutants are being exceeded, and coordinates enforcement actions if necessary.

Learn more about the Clean Air Act and how air quality is regulations are enforced.....

- <http://www2.epa.gov/laws-regulations/summary-clean-air-act>
- <http://www.epa.gov/air/caa/peg/>
- http://ehstoday.com/environment/air/ehs_imp_36973
- <http://www2.epa.gov/enforcement/air-enforcement>
- <http://www.epa.state.oh.us/dapc/AirPollutionControl.aspx>



How do we know when pollution levels are too high?

- USEPA has established standards for the six criteria pollutants, designed to protect health, the environment and property. Together, these standards are referred to as National Ambient Air Quality Standards (NAAQS). The NAAQS set limits for the levels of these pollutants that are allowed in our air.

To help the public understand these standards, an Air Quality Index (AQI) has been created for reporting air quality. The AQI is a type of daily scorecard and is used for reporting on 5 of the 6 criterial pollutants. Based on a scale of 0 to 500, the AQI color-codes daily air quality under six categories. These categories can range from “Good” to “Hazardous” depending on the score. In Central Ohio, the MidOhio Regional Planning Commission (MORPC) issues air quality alerts to the public when the levels of some pollutants – usually ozone and particulate matter – are forecast to exceed safe thresholds. The data used by MORC to make their assessments is

provided by OEPA through air monitors they maintain in central Ohio. OEPA also has a website that provides information on current air quality at its ozone and particulate matter monitors.

Learn more about the air monitoring, the NAAQS and the Air Quality Index.....

- <http://www.epa.gov/air/criteria.html>
- <http://airnow.gov/index.cfm?action=aqibasics.aqi>
- <http://www.morpc.org/Sustainability/air-quality/index>
- <http://wwwapp.epa.ohio.gov/gis/mapportal/>



Who in our community is most affected by poor air quality?

- Poor quality air can impact anyone, depending on the pollutant, how much is in the air and the amount of time a person is exposed. However, some in our community face greater health risks from air pollution than others. This includes the very young and very old, whose bodies may still be developing or be weakened and more susceptible to damage. It includes the poor, which may live closer to pollution sources or may not have health care. And it includes people with existing health problems involving their heart, blood vessels and lungs. Studies also suggest certain racial groups may face disproportionate health impacts from air pollution compared to whites.

These health impacts may include heart disease, stroke, Chronic Lower Respiratory Disease (COPD) and asthma. The most recent health indicators for Franklin County show that heart disease, COPD and stroke rank as the 2nd, 3rd, and 5th leading cause of death, respectively. In addition, 14% of county residents over the age of 18 have asthma. Evidence shows that air pollution can be a trigger for these diseases or make symptoms worse.

Learn more about air pollution, health disparities and vulnerable populations.....

- <http://www.psr.org/environment-and-health/confronting-toxics/vulnerable-populations.html>
- <http://www.psr.org/environment-and-health/environmental-health-policy-institute/responses/particulate-matter-pollution.html>
- <http://www.stateoftheair.org/2013/health-risks/health-risks-disparities.html>
- [file:///C:/Users/rickh/Downloads/KCHI%20update%200414%20\(10\).pdf](file:///C:/Users/rickh/Downloads/KCHI%20update%200414%20(10).pdf)
- <http://www.lung.org/assets/documents/publications/solddc-chapters/air-quality.pdf>



What's being done to improve air quality?

- In June, USEPA announced new draft standards aimed at reducing the amount of carbon dioxide produced from new or modified power plants. U.S. power plants – particularly those powered by burning coal -- are a major source of air pollution, and the “carbon standards” announced by USEPA would reduce emissions of carbon dioxide 30% below 2005 levels by the year 2030. Evidence suggests that implementing these carbon reduction standards will also reduce levels of other power plant pollutants, significantly improving air quality and public health.

The release of these draft standards is the first step before EPA can issue a final rule in June, 2015. In the meantime, the agency is seeking comment from interested organizations and individuals on the draft standards. The deadline for public comment is December 1. Once the final rule is issued next June, each state will have a year to submit plans to USEPA on how they will meet the new carbon dioxide targets.

Learn more about EPA’s proposed carbon rule and its potential effect on health.....

- <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule>
- <http://eng-cs.syr.edu/wp-content/uploads/2014/05/Carbon-cobenefits-study-FINAL-SPE.pdf>
- <http://news.syr.edu/rules-to-cut-carbon-emissions-also-reduce-other-air-pollutants-31115/>
- http://newsoffice.mit.edu/2014/cutting-carbon-health-care-savings-0824#.U_syk-BVpeg.twitter

I’m concerned about air quality. What can I do?

- **Learn more about the issue**
 - 1) Find and read information from a variety of sources
 - 2) Talk to your doctor – about your health, the health of your family, and the potential impacts of poor air quality

- **Look for opportunities to do your part**
 - 1) Talk to others, share what you know and look for opportunities to work collectively to make a difference.
 - 2) Connect with others working to improve air quality
 - Local, State and National elected officials representing Columbus
 - Mayor Michael Coleman (614) 645-7671
 - Council members (614) 645-7380
 - Your Ohio House and Senate representatives:
www.legislature.state.oh.us/search.cfm#reps_zip
 - Your U.S. House and Senate representatives:
<http://www.house.gov/representatives/find/>

- Government agencies, health and environmental groups, like the following:
 - www.epa.gov/
 - <http://www.epa.state.oh.us/>
 - www.publichealth.columbus.gov
 - www.cdc.gov
 - <http://www.lung.org/associations/states/ohio/index.html>
 - <http://www.aap.org/en-us/Pages/Default.aspx>
 - <http://www.ama-assn.org/ama>
 - <http://www.ohiopho.org/>
 - <http://www.theoec.org/>
 - <http://www.nrdc.org/>
 - <http://www.momscleanairforce.org/ohio/>
- 3) Get on mailing lists – to get the latest on air quality news impacting health, potential new laws, local programs that seek to improve air quality, etc.
- 4) Volunteer as a resource – provide your name and contact information, if requested, to agencies and environmental organizations working on clean air issues. Organizations can use this to get you the most up-to-date information on issues about air quality. Groups can also use your contact information to help mobilize like-minded residents to work together on issues of importance.
- 5) Contact legislators – Weigh in with elected officials on air quality issues, policies or potential laws and regulations. Your opinion is often an important factor in helping them make decisions.
- 6) “Walk the walk” – Practice behaviors in your daily life that can help reduce air pollution and keep the air clean. For examples, see the links below:
 - http://epa.gov/oaqps001/peg_caa/reduce.html
 - http://www.ecy.wa.gov/programs/air/Health_community/Community.html
 - <http://www.airnow.gov/index.cfm?action=resources.whatyoucando>
 - <http://des.nh.gov/organization/divisions/air/tsb/ams/aqmdp/share.htm>
 - <http://www.morpc.org/Sustainability/air-quality/take-five-for-clean-air/index>

