



Fact Sheets

Air Pollution & Early Development	There is evidence to suggest that if pregnant women are exposed to air pollution, their children can experience a number of health issues before they are born, at birth, during infancy, and in early childhood. Here, we describe these issues, explore the causes, and outline action steps from policy advocacy to education and community outreach.
Air Pollution & Oxidative Stress	Evidence shows that air pollution leads to oxidative stress, worsening health. Antioxidants can reduce oxidative stress levels in the body. Here, we identify major sources of air pollution in Detroit, define oxidative stress and how it relates to air pollution, and outline protective measures community members can take to mitigate its negative health impacts.
An Ounce of Prevention... The Precautionary Principle	The precautionary principle helps us weigh whether an action or decision should be undertaken when we do not know for certain whether it may have harmful effects on the environment. Further, it states that the burden of proof that a product or action is safe for people and for the environment should fall to those who are promoting its use. We explain what this looks like in the real world and outline some steps people can take to promote precaution in their communities.
Asthma & the Environment	There is evidence to suggest that oxidative stress and epigenetic changes may play a role in the development of asthma, a serious health problem in southeast Michigan. People that live or work near higher levels of environmental air pollutants, can take individual and community steps to reduce their harm thus reducing the chance that their offspring will develop asthma.
Diabetes & the Environment	Scientists think that certain persistent organic pollutants (POPs) may be associated with diabetes. While it is important to note that association does not prove causation, we explain what research there is about this link and outline action steps community members can take.
Epigenetics & the Environment	Here we define the epigenome, and briefly outline some research avenues currently being explored in terms of linking our epigenome to environmental hazards and personal health.
Foods Rich in Antioxidants	Oxidative stress occurs when there is an imbalance in our cells due to either an increase in free radicals and/or a decrease in antioxidants. We list various foods that are rich in antioxidants, the consumption of which can help mitigate adverse health effects due to oxidative stress.
Motor Vehicle Idling & Health	The pollution released by idling vehicles is harmful to the environment and to the health of individuals. There are many health problems associated with air pollution for both children and adults, including asthma, cardiovascular disease and cancer. Here, we bust some myths about motor vehicle idling and introduce better ways to use your motor vehicle to protect public health.
Obesity & the Environment	Obesity is a significant health problem and researchers are currently exploring ways in which it is linked to the environment. Studies include relationships between obesity and epigenetics, endocrine disruptors, and oxidative stress. Here, we outline ways in which people can reduce obesity in Detroit and Southeast Michigan, from the individual to the population level.
What are Endocrine Disruptors	Endocrine disruptors are chemicals that can throw our bodies out of balance by preventing our endocrine systems from working properly. Endocrine disruptors can cause health problems in many different ways. While more research is still needed to establish causation, there are certain things people can support and avoid in the meantime, detailed here.

What is Oxidative Stress?

The process of oxidation creates free radicals in our cells. In large portions, free radicals can cause damage to cells. Oxidative stress occurs when there is an imbalance in our cells due to either an increase in free radicals and/or a decrease in antioxidants. Consuming foods that are rich in anti-oxidants can inactivate free oxygen radicals and reduce the hazardous effects of free radicals.

Policy Briefs

Infant Mortality and Air Pollution

Research finds air pollution is linked to infant mortality, as well as low birth weight and preterm birth - both of which contribute to infant mortality risk. Strengthening and enforcing policies to prevent air pollution may represent a new strategy for moving the needle on infant mortality.

Air Pollution, Oxidative Stress, & Antioxidants

Here, we define air pollution, oxidative stress, and antioxidants, and detail the relationship between the three. Furthermore, we explain how policy change can both decrease air pollution and increase availability of antioxidants, thereby improving population health.

Brochures & Handbooks

Demolition Is Happening: What You Should Know

Here we detail (in depth in the handbook, and more succinctly in the brochure) what urban demolition is, the hazards that can result, what to do to protect oneself, and who to call for further assistance.

All materials available online at:
ehscc.umich.edu/community-outreach-engagement/110-2

This work cannot be done without the Stakeholder Advisory Board, who knows the city of Detroit and Southeast Michigan intimately through their community work. Members include:

Who We Are

- The Community Outreach and Education Core (COEC) serves as a resource to increase awareness and understanding of environmental health research, and to further scientific collaboration among the researchers of the University of Michigan (UM) Environmental Health Science (EHS) Core Center and the communities involved.
- The COEC works to facilitate translation and dissemination of research in a way that is meaningful to all stakeholders, including community members in Detroit and Southeast Michigan as well as local, state, regional and national policy makers and public health decision makers charged with establishing regulations and policies regarding environmental exposures and health outcomes.

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