

# **Traffic-Related Air Pollutants and Outdoor Physical Activity**

## **The Issue and Action Steps for Community Members**

The M-LEEaD Center's Community Engagement Core (CEC) increases awareness and understanding of environmental health research.

Stakeholder Advocacy Board members include:

- Community Health and Social Services
- The Detroit Health Department
- Detroit Hispanic Development Corporation
- Detroiters Working for Environmental Justice
- Eastside Community Network
- Ecology Center
- Green Door Initiative
- MDHHS
- Sierra Club
- We the People of Detroit

Contact us:  
 Alison Walding  
 Project Manager  
 Community Engagement Core  
[walison@umich.edu](mailto:walison@umich.edu)

### **What are traffic-related air pollutants (TRAP)?**

In urban areas, motor vehicles like cars, trucks, and buses are a major source of air pollution. Pollution can come from vehicle exhaust, road dust, and non-tailpipe emissions like brake and tire wear. This mixture of emissions is called traffic-related air pollutants or TRAP.

### **Where is my exposure to TRAP the highest?**

Traveling in vehicles, working or living near busy roads, and being outdoors near major highways can increase your exposure to TRAP. Exposure to TRAP is highest near traffic.



### **How can traffic-related air pollutants impact my health?**

- Increased risk of developing or worsening of asthma
- Lung function impairment
- Inflammation
- Cardiovascular disease, including hypertension, heart attacks, and strokes
- Damaged blood vessels

### **How can TRAP harm you when exercising?**

When you exercise, you breathe more air into your lungs than when sitting still. If you exercise and are exposed to TRAP, you will be breathing more air with pollutants into your lungs. This may impact the health of your respiratory and cardiovascular systems.



## What steps should I take before leaving home?

Check the air quality index (AQI): [airnow.gov](https://airnow.gov). When the AQI is high (**151 or higher**), take action! If you are pregnant or have health issues, you might take these actions when the AQI is at even lower levels like **51 or higher**.

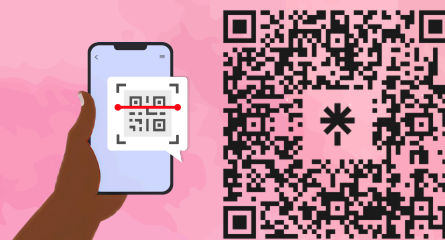
### When indoors:

- Keep doors and windows shut
- Use an air purifier, change air filters as needed
- Depending on the season: turn on your furnace or turn on your air conditioner, if you have one

### When outdoors:

- Use an N95 face mask

Want more information related to air pollution and how to prevent exposure?



Or visit:

[linktr.ee/airpollutionresources](https://linktr.ee/airpollutionresources)



## How can I protect myself outside?

When walking, jogging, or biking, plan your route.

When you can, select:

- Low-traffic roads instead of major roadways
- Sidewalks away from street curbs, closer to buildings
- The side of the street that is upwind from traffic
- A green or park environment, especially if there is a solid or vegetative barriers that separate cyclists and pedestrians from vehicle traffic

Avoid exercising:

- On summer afternoons when AQI is highest
- During times with high traffic volume, like rush hour

## Protecting our children

When air pollution is particularly bad, children should avoid strenuous activity. Minimize their play or exercise if children have pre-existing medical conditions such as asthma or other respiratory issues.



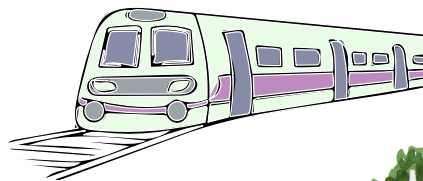
SCHOOL OF PUBLIC HEALTH  
LIFESTAGE ENVIRONMENTAL EXPOSURES AND DISEASE CENTER  
UNIVERSITY OF MICHIGAN



## How can I support my community?

Environmental protections can play a critical role in improving air quality in Michigan. What can we do to ensure a better environment for all of Detroit's residents?

- Attend city council meetings to encourage officials to promote alternative transportation options, like the bus or train.



- Urge the enforcement Detroit's anti-idling ordinance and rerouting of trucks outside of residential communities.



- Support stronger emission standards for gasoline and diesel engines and lower air quality standards near highways.



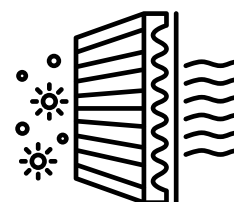
- Encourage state decision makers to require heavy duty vehicles under contract in Michigan to replace engines and install pollution control devices. Make state and federal funds available for this.



- School officials may consider asking parents not to leave their car running during drop off and pick up times.



- Encourage local and state policymakers to take steps to mitigate the negative effects of poor air quality, such as by enacting zoning policies that keep heavy traffic away from schools or funding filters to improve air quality for schools, daycares and community organizations.



- Schools should implement guidelines to manage students' exposure on high pollution days based on the color-coded Air Quality Flag Program.



Please see [http://mleead.umich.edu/Coec\\_Fact\\_Sheets.php](http://mleead.umich.edu/Coec_Fact_Sheets.php) for the citations included in this factsheet.

This research was supported by the National Institute of Environmental Health Sciences (NIEHS) (#R01ES022616, #R01ES032389) and the Fred A. and Barbara M. Erb Family Foundation, with additional support provided by the Michigan Center on Lifestage Environmental Exposures and Disease (M-LEEaD) (NIEHS #P30ES017885).