

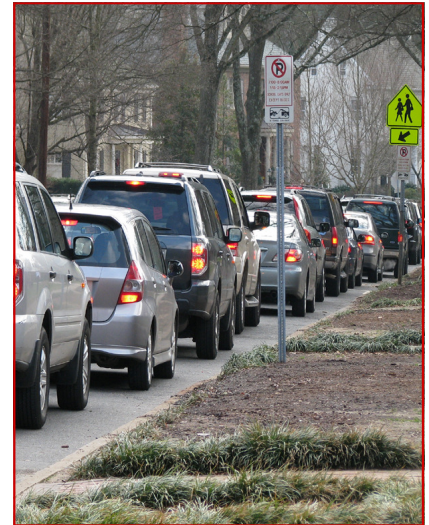
## "Turn Off Your Engine" Fact Sheet

### How is idling harmful to public health?

Vehicles emit numerous carcinogenic chemicals which the EPA estimates account for as many as half of all cancers attributed to outdoor air pollution. Exhaust is loaded with fine particles that penetrate deep into the lungs and inflame the respiratory system, especially in children and people with asthma. Vehicle emissions can trigger asthma attacks. Children are sensitive because they take in more air per pound of body weight than adults and their lungs are still developing. Studies show children who grow up in smoggy cities have limited lung capacity as adults.

### How does idling affect our environment?

Idling vehicles increase the amount of preventable pollution released into the air and degrades our region's already fragile air quality. In its 2009 State of the Air report, the American Lung Association gave Charlotte a grade "F" and ranked the city 8th smoggiest in the nation. "Smog" or ground-level ozone pollution is formed by a chemical reaction between nitrogen oxides (NOx) emitted from cars and trucks, sunlight and hot weather. Because vehicles are one of the main contributors to Mecklenburg County's long-term air quality problem, a simple way to help improve the air we breathe is to turn off your engine and not idle unnecessarily.



*A common place to find excessive idling is at school where children wait to be picked up.*

Vehicles also emit carbon dioxide (CO<sub>2</sub>) - the largest greenhouse gas contributor to climate change. Newer cars have controls that reduce some air pollutants in exhaust, but one pollutant that has not been cleaned-up is CO<sub>2</sub>. One hour of idling releases 20 lbs of global warming pollution into the atmosphere!

### Reducing my personal idling can save me money?

Yes! According to the NC Division of Air Quality, and contrary to popular belief, idling for just 10 seconds uses more fuel than turning the engine off and restarting it. In fact, you use approximately one gallon of gasoline per hour you sit idle. Idling can also wear on your engine. When idling, the engine is unable reach its peak operating temperature and the fuel doesn't undergo complete combustion. This leaves fuel residue on engine parts which can clog spark plugs or pollute the engine oil.

Your car needs no longer than 30 seconds of warm-up time to circulate the engine oil before you drive away on cold days. Other parts of the car need warming up too - the best way to warm up a vehicle is to drive away slowly.

### Take the Pledge to Turn Off Your Engine!

So the next time you pull into the carpool line or up to a drive-thru window, remember that every second you sit idle, you are exacerbating Charlotte's air quality problem and harming the young lungs around you. Charlotte-Mecklenburg Schools and Piedmont Natural Gas have teamed up with Clean Air Carolina to encourage parents to "take the pledge" to turn off their engines and not idle unnecessarily this ozone season, especially on school property. For more information and to take the pledge, visit: [www.cleanaircarolina.org](http://www.cleanaircarolina.org).

**If you think you will idle for longer than 30 seconds—Turn Off Your Engine!**