

**IDLING GETS YOU NOWHERE**

What are parents thinking about when they're picking up their kids from school?



Soccer practice?

Piano lessons?

Homework?

Dinner?

# What about car exhaust?



# What's in car exhaust?

- Hydrocarbons
- Nitrogen Oxides
- Carbon Monoxide
- Carbon Dioxide

Pollutants in exhaust aren't good for anyone to breathe.



But they are especially harmful to kids.

# Kids are more vulnerable to the pollutants in car exhaust

- ⦿ Because their lungs are still developing,
- ⦿ because they breathe faster than adults,
- ⦿ and because they breathe 50% more air per pound of body weight.

Idling has been directly linked to heart disease, to low-birth weight babies, to cancer, and to asthma and other respiratory diseases.

# Asthma Facts

Every day in America:

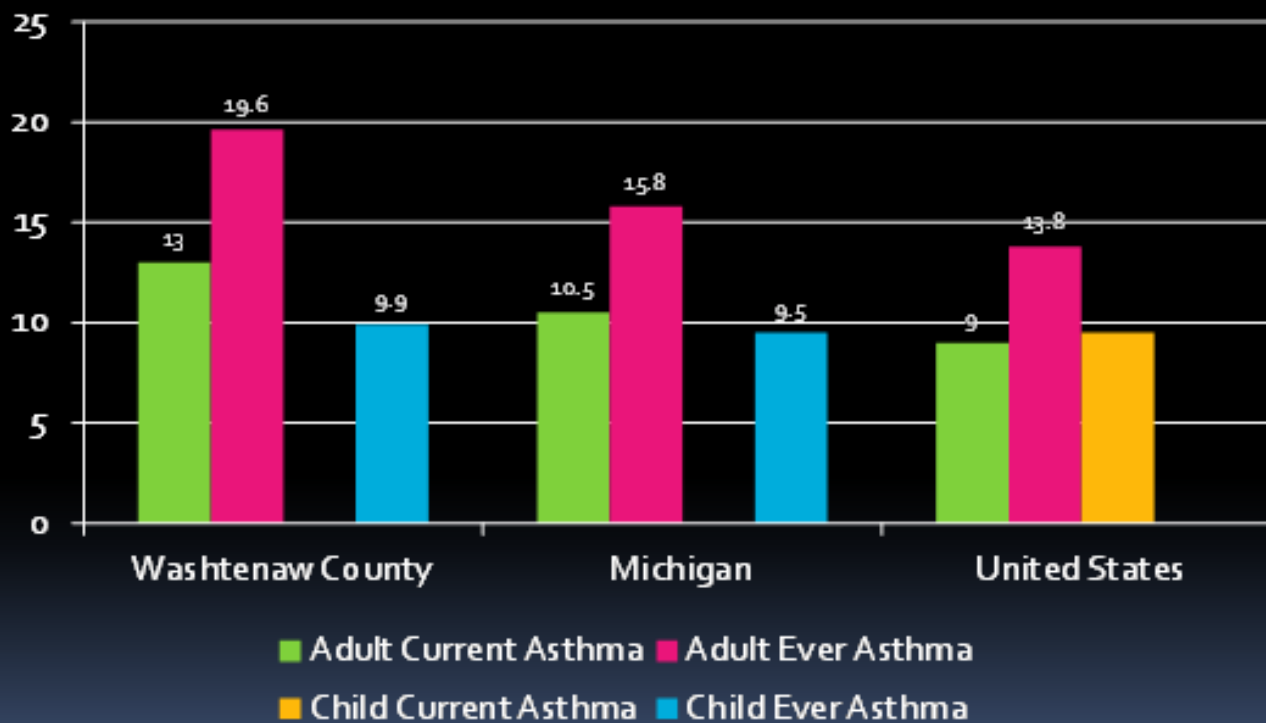
- 44,000 people have an asthma attack.
- 36,000 kids miss school due to asthma.
- 27,000 adults miss work due to asthma.
- 4,700 people visit the emergency room due to asthma.
- 1,200 people are admitted to the hospital due to asthma.
- 9 people die from asthma.



# Asthma Locally

## Asthma Prevalence - Percent

Washtenaw, Michigan, United States - 2010



Note - Michigan 'child ever asthma' is 2007 data

Sources: Washtenaw County Public Health 2010 HIP Survey

Michigan Department of Community Health Asthma Surveillance

U.S. Center for Disease Control - 2010 Behavioral Risk Factor Survey

Waller, A. June 29, 2013 - AsthmaPrevalence2013

What's the relationship between asthma and car exhaust?

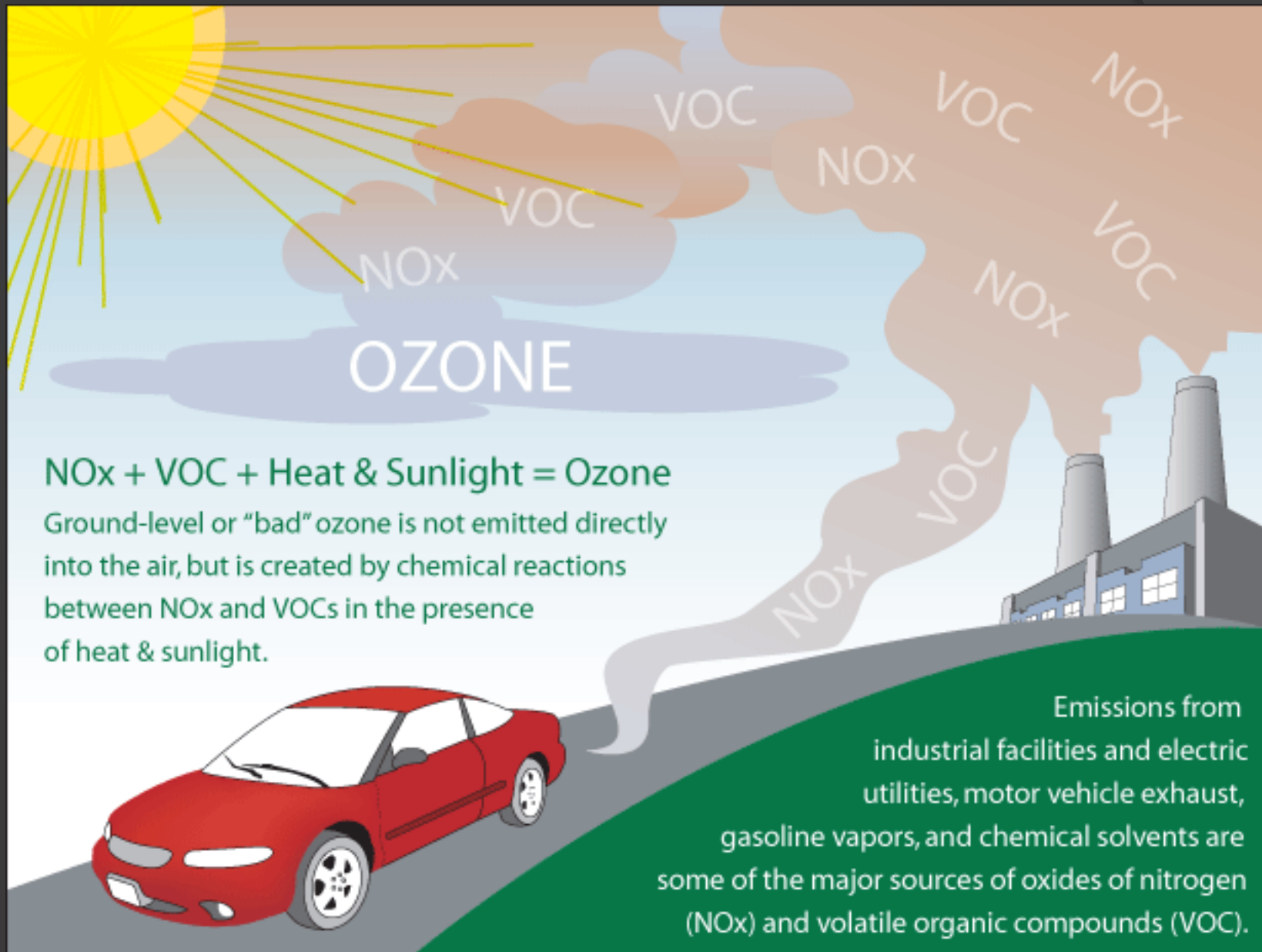


Car exhaust hurts kids as much as second-hand smoke.



=





**NOx + VOC + Heat & Sunlight = Ozone**

Ground-level or "bad" ozone is not emitted directly into the air, but is created by chemical reactions between NOx and VOCs in the presence of heat & sunlight.

Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of oxides of nitrogen (NOx) and volatile organic compounds (VOC).

# REMEMBER: 10 SECONDS

If you're stopped longer than ten seconds, turn your car off.

- Ten seconds of idling uses more fuel than turning off the engine and restarting it.
- Idling gets zero miles to the gallon.



# What about warming up a cold engine?

Today AAA, car manufacturers, and automotive engineers agree that driving your car off slowly on a cold morning – through the streets of your neighborhood – is the best, most efficient way to warm your car's engine.

# That's Not What I Learned

Motor oils and engines are much improved. Motor oils lubricate over a wider range of temperatures, contain beneficial additives, and don't deteriorate as quickly. Engines are machined to much tighter tolerances, and internal moving parts are made out of better materials.

# Is idling really that important?

Every year Americans idle away about \$78.2 million in gas.

The average person idles 5-10 minutes every day. If we all reduced daily idling by 5 minutes:

Engine size	Daily	Annually		
	Gas not burned	Gas not burned	Money saved	CO2 not emitted
Small	.5 cups	10 gallons	\$30	220 lbs
8 cylinder	1 cup	20 gallons	\$60	440 lbs



# Total US Benefit from Eliminating Five Minutes of Unnecessary Idling

DAILY		ANNUALLY	
Gas Not Burned	CO2 Not Emitted	Gas Not Burned	CO2 Not Emitted
3.8 million gallons	40,000 tons	1.4 billion gallons	13 million tons

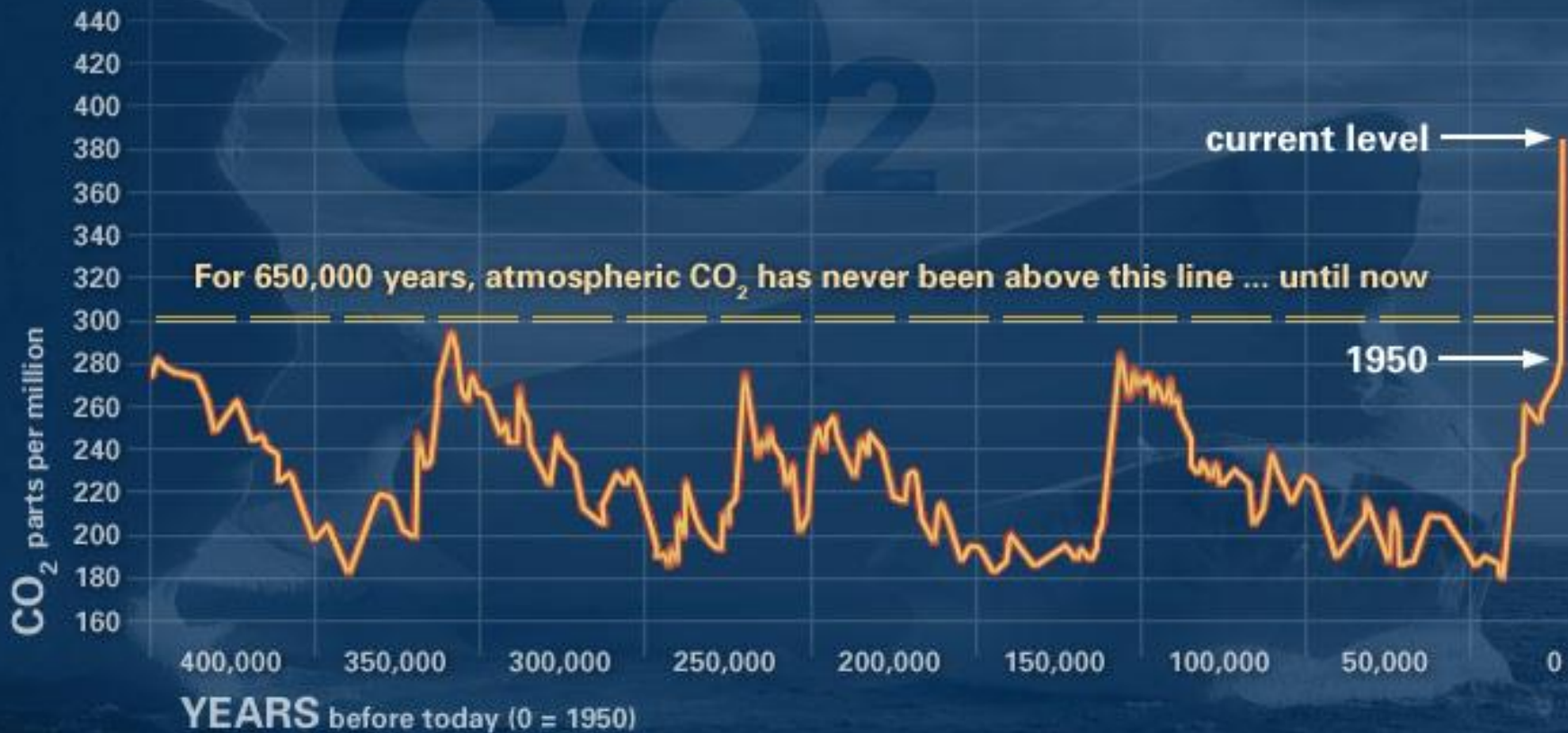
# Global Warming

Idling →  
global warming →  
climate change.



Stopping unnecessary idling by itself isn't going to keep us from crossing the line where too much carbon changes our planet, but it will slow our progress to that point.

Carbon isn't like other pollutants; once it's in the atmosphere it will stay there for almost 100 years.



# Climate Change: Our Biggest Challenge



# Our kids: our biggest reason to meet it

