



# **BREATHE study**

**Air pollution and you**

# Chemistry of Air Pollution

- Vapors
- Gas
- Dust
- Fumes (VGDF)

Radiation, Heat,  
and Oxygen



**Sulfur  
Dioxide**

**Lead**

**Nitrogen  
Dioxide**

**Carbon  
Monoxide**



Factories



Fires (natural or  
human-made)



Farms and  
Livestock (*tractors,  
cows, etc.*)



Transportation  
(incl. cars, trains, planes, ships)

# Air pollution is a *local* problem



Source: AirNow - Current Air Quality Index

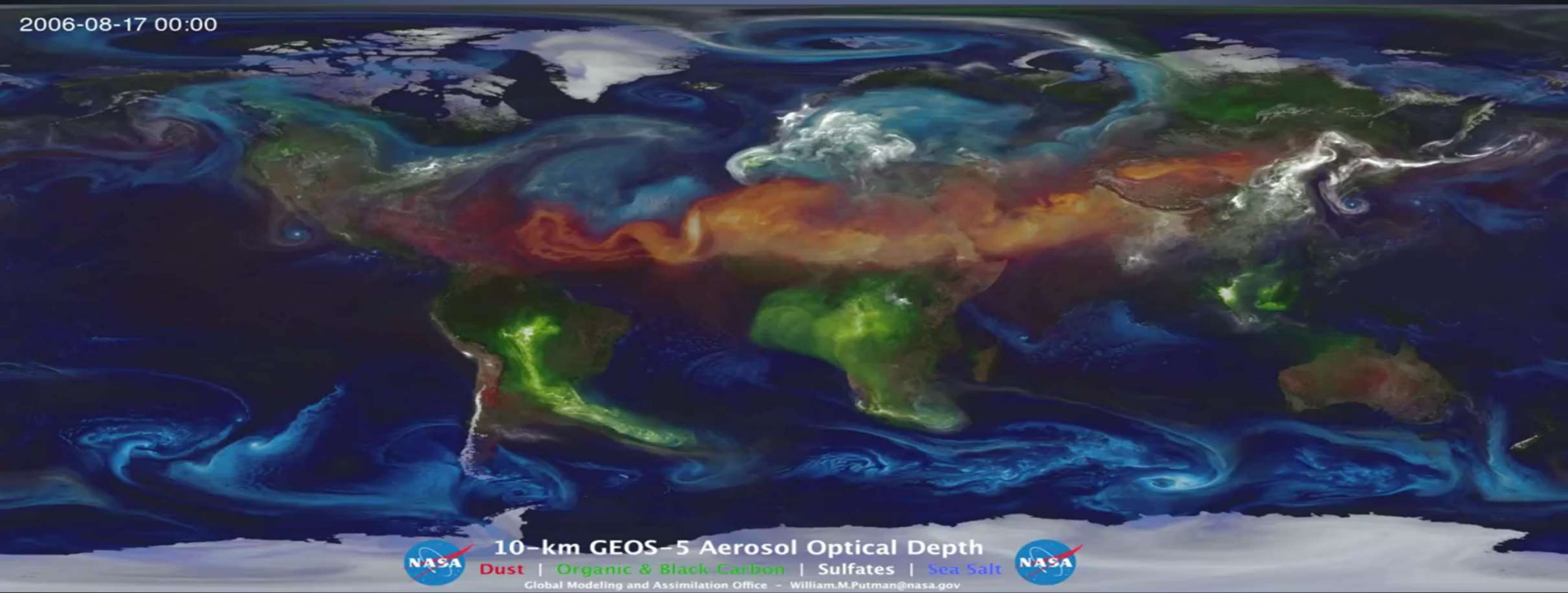
Air quality measurement:



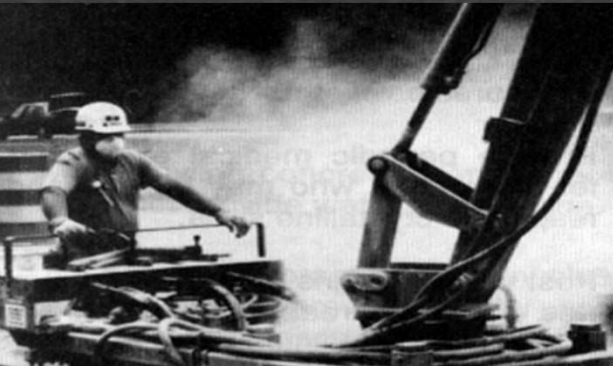


# Air pollution is a *global* problem

2006-08-17 00:00



NASA Earth Observatory Website: [earthobservatory.nasa.gov](http://earthobservatory.nasa.gov)

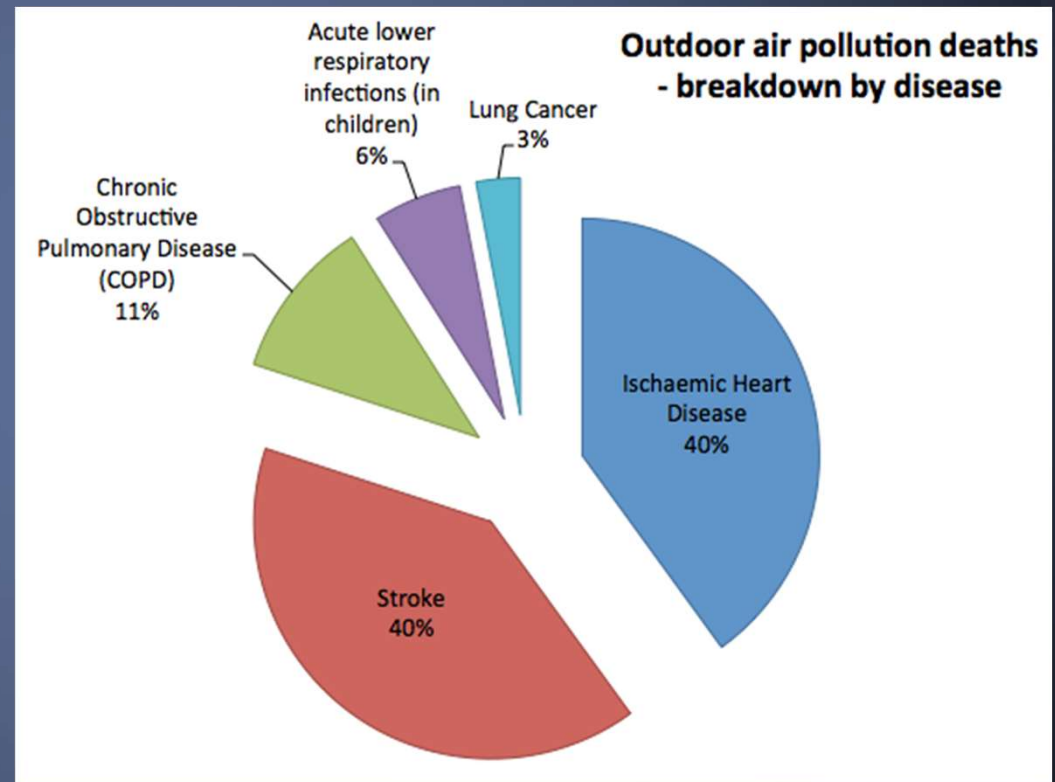




# Lung Damage in the Long Run

- Coughing
- Asthma
- Chronic Lung Disease
- *Death*

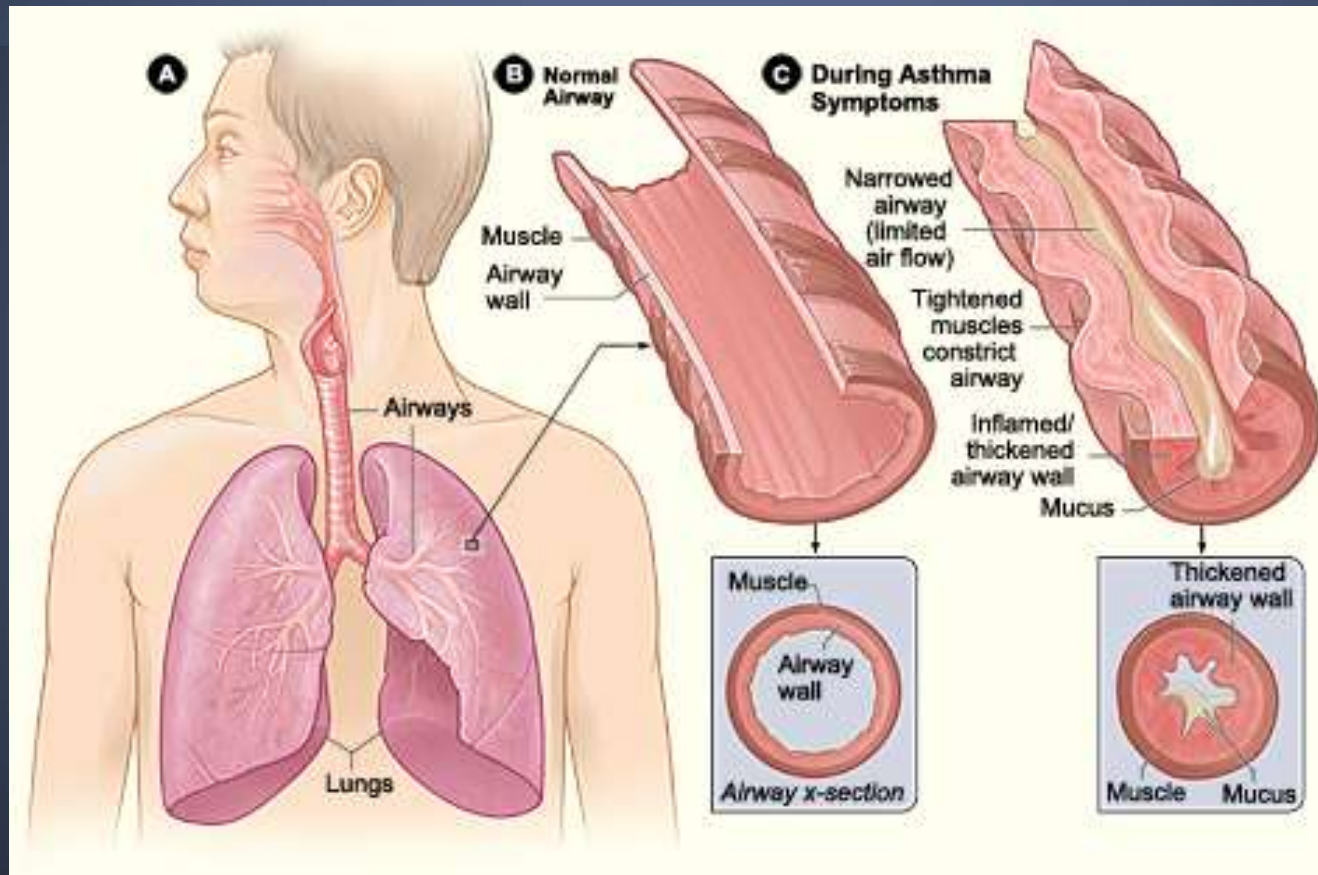
*... and other conditions*



# What is air pollution doing to your body?

It contributes to obstructed lung diseases, such as *asthma* and *emphysema*.

# Asthma in Your Body





A large, bright yellow starburst graphic with multiple points, centered on the slide. It serves as a background for the text 'Quick check!' and partially overlaps the question text.

**Quick check!**

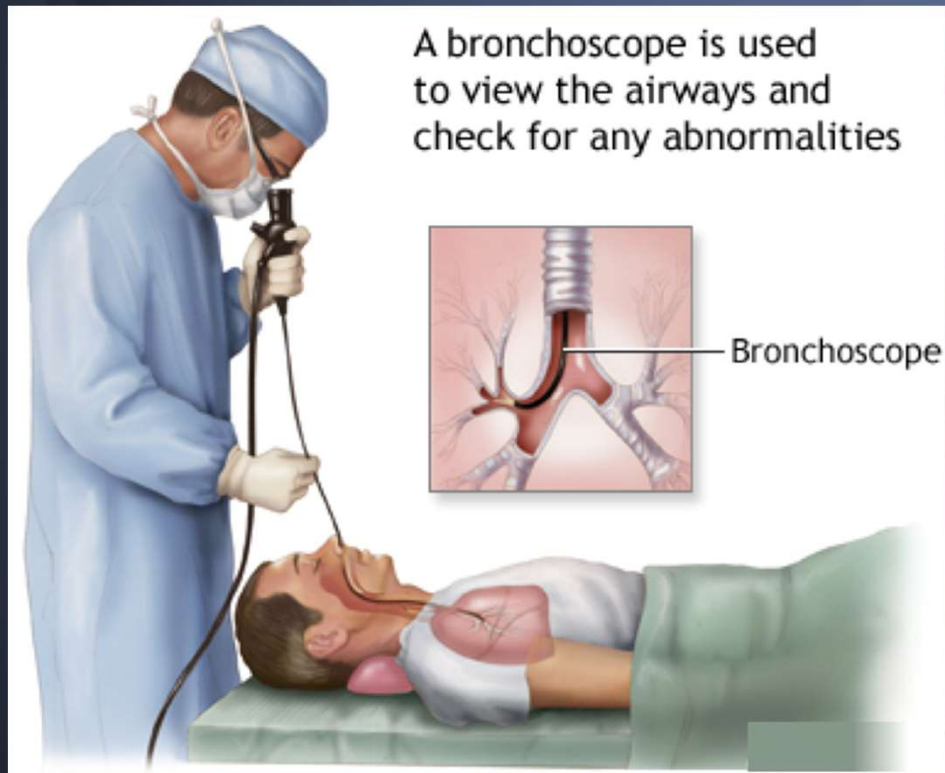
**What is one symptom of asthma?**

Inflamed Airway

Mucus in the airway

Difficulty breathing

# How can we observe this?



# What is air pollution doing to your body?





**How is this impacting YOU personally?**

STOP

# So what's causing this pollution?

**Sulfur  
Dioxide**

**Nitrogen  
Dioxide**

**Carbon  
Monoxide**

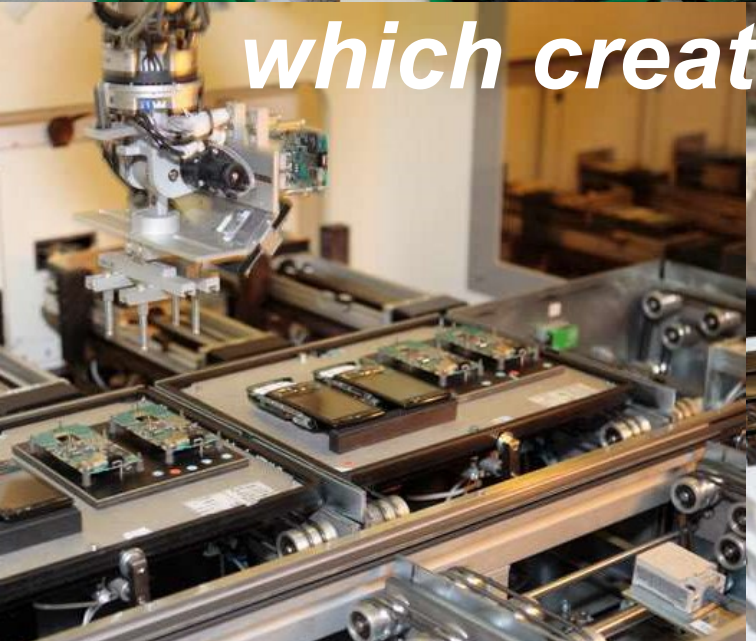
**Lead**



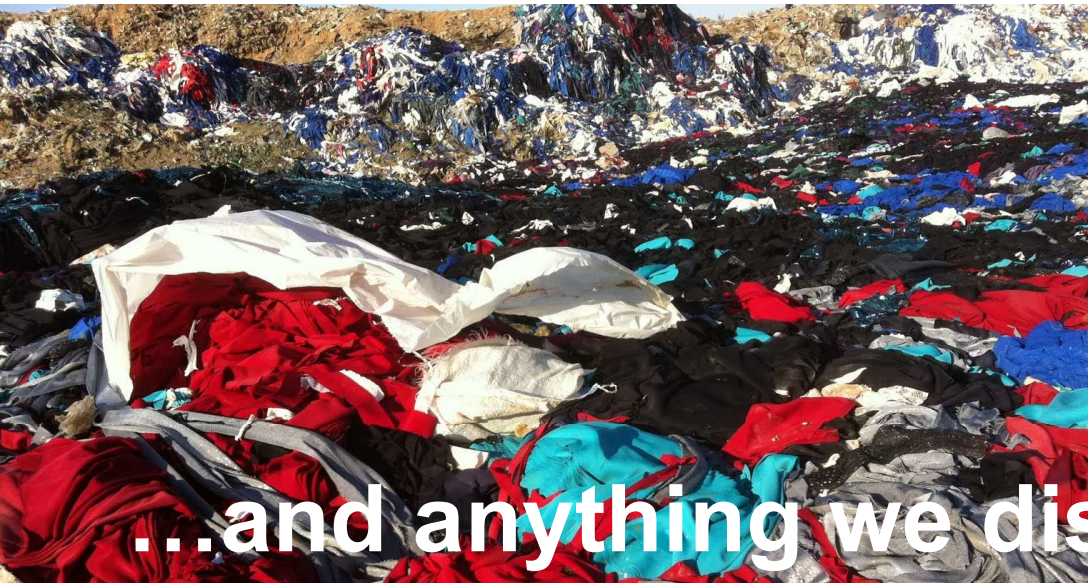




Anything we use needs to be produced,  
*which creates pollution...*







...and anything we discard creates waste.



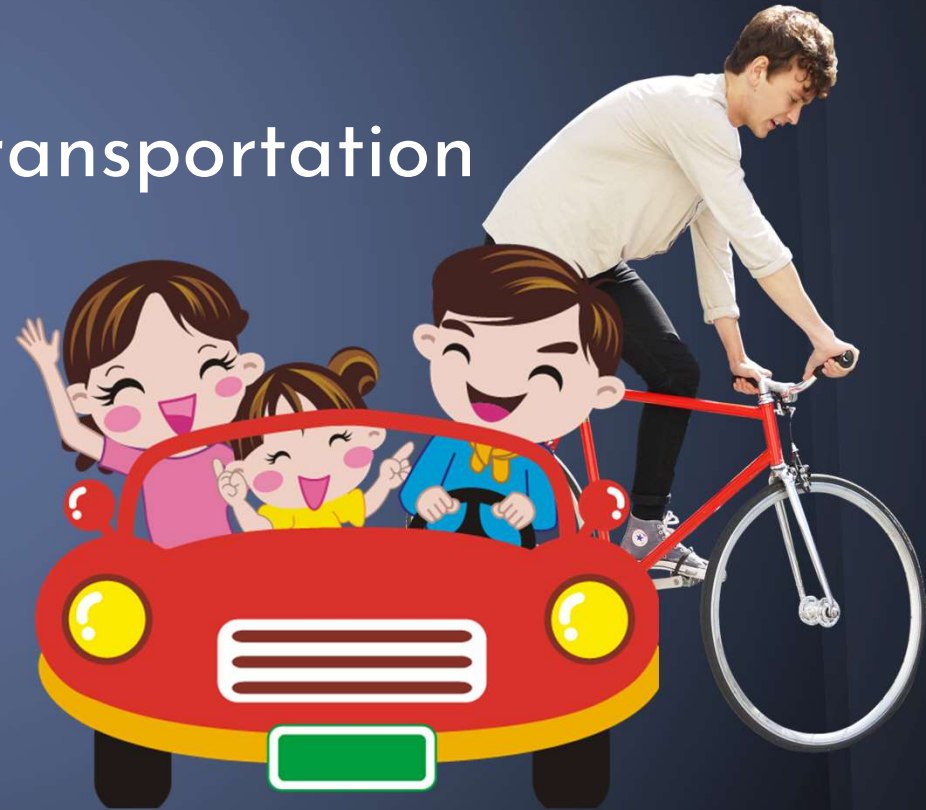


# WHAT YOU CAN DO

## Conserving electricity



## Transportation





# Reduce/Reuse/Recycle



CAN YOU THINK OF ANY MORE?

# YOUR lung function