

# ATMOSPHERIC POLLUTION: If you take care of air, you care for life

## How is air polluted?

Due to the presence of substances mostly produced by transportation, industry, and other human activities

### Major pollutants

**Particulates (PM<sub>10</sub> and PM<sub>2.5</sub>):**  
Wood/carbon burning, construction, and unpaved roads

**Sulphur dioxide (SO<sub>2</sub>):**  
Use of petroleum derived liquid fuels and volcanic eruptions

**Ozone (O<sub>3</sub>):**  
A product of OVC and NOx chemical reactions with sunlight

**Organic volatile compounds (COV):**  
Gasoline and solvents use, LP gas leaks

**Carbon monoxide (CO):**  
Vehicles combustion and agricultural burning

**Nitrogen dioxide (NO<sub>2</sub>):**  
Mostly produced by vehicles combustion

## Produces problems for:

- Live beings
- Farming
- The environment

**Nitrogen dioxide:** Causes airway infections

**Carbon monoxide:** Dizziness, headache. May be lethal

**Sulphur dioxide:** Worsens respiratory illnesses (asthma)

**Ozone:** Lungs inflammation, liver damage

**PM<sub>10</sub> and PM<sub>2.5</sub>:** Respiratory and cardiovascular systems damage

## Advice to take care of air



Share your car



Check there are no gas leaks from water heaters, gas stoves, and gas tanks



Use the bicycle or public transportation



Use recycled and biodegradable products



Unplug unused equipment



No tires, garbage burning, and no fire building



Service your car and home appliances



Take care of green areas

## Be informed

**Sistema Nacional de Información de la Calidad del Aire**  
[sinaica.inecc.gob.mx](http://sinaica.inecc.gob.mx)

**Centro Nacional de Prevención de Desastres**  
[www.gob.mx/cenapred](http://www.gob.mx/cenapred)

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Translation: Guadalupe Meléndez de Escalante



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# Atmospheric pollutants and their danger

Take care of your and your family's health

Pollutants may cause illnesses and worsen diseases. If you have one, immediately visit your health center

## Air quality index

It is used by environmental authorities to inform on the levels of pollution. Five grades of air quality have been defined

**\*Sensible groups:** children, senior citizens, anyone with intense physical activity, anyone suffering respiratory or cardiovascular diseases



## Major high pollution season



**All year long,** except for the rainy season (June to September)



Ozone: from the **second half of February through June**



Ozone and aerosols: **the dry and hot season**



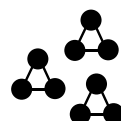
Suspended particulate: **Winter**



**Pollution**



**UV light**



**Ozone**

**Ozone** is derived from other pollutants (mostly OVC and NOx) when they react with UV light

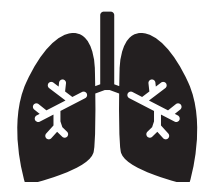
## What are PM<sub>10</sub> and PM<sub>2.5</sub>?



These are names given **air suspended particulates with a diameter of under**

**10 or 2.5 microns\*\***

mostly caused by combustion or other processes that produce vapors



Depending on their size, **particulate may lodge** in the **trachea, bronchus** or reach **pulmonary alveoli**

**\*\*Micron (μ)** is one thousandth of a millimeter. A human hair has a diameter of 80 microns