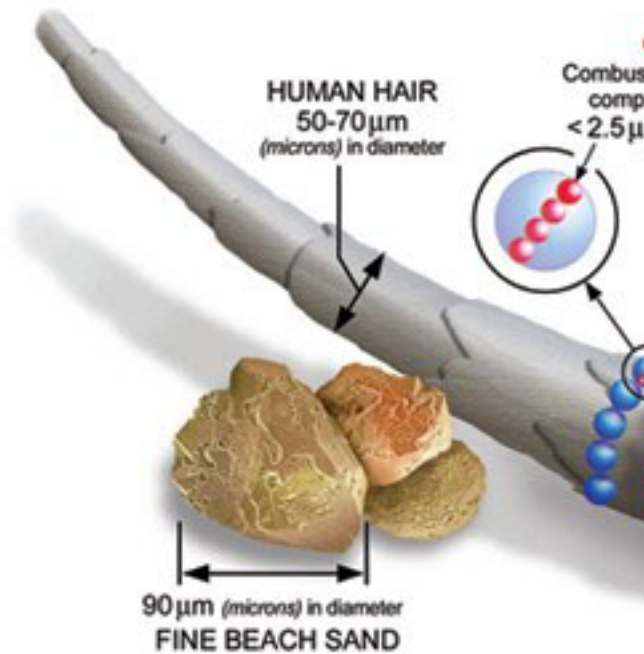


# Particle Pollution (PM)

Particle pollution, also called particulate matter or PM, is a mixture of solids and liquid droplets floating in the air. Some particles are released directly from a specific source, while others form in complicated chemical reactions in the atmosphere.

Particles come in a wide range of sizes. Particles less than or equal to 10 micrometers in diameter are so small that they can get into the lungs, potentially causing serious health problems. Ten micrometers is less than the width of a single human hair.



**Coarse dust particles (PM<sub>10</sub>)** are 2.5 to 10 micrometers in diameter. Sources include crushing or grinding operations and dust stirred up by vehicles on roads.

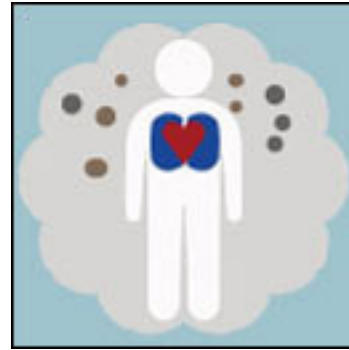
**Fine particles (PM<sub>2.5</sub>)** are 2.5 micrometers in diameter or smaller, and can only be seen with an electron microscope. Fine particles are produced from all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

## HEALTH EFFECTS

People with heart or lung diseases, older adults and children are most likely to be affected by particle pollution exposure. However, even if you are healthy, you may feel temporary symptoms if you are exposed to high levels of particle pollution. Numerous scientific studies connect particle pollution exposure to a variety of health issues, including:

- irritation of the eyes, nose and throat
- coughing, chest tightness and shortness of breath
- reduced lung function
- irregular heartbeat
- asthma attacks
- heart attacks
- premature death in people with heart or lung disease

- Particle pollution and your health
- How smoke from fires can affect your health



## ENVIRONMENTAL EFFECTS



PM haze in a national park

Particle pollution can:

- Reduce visibility (haze) in parts of the US, including some national parks
- Stain and damage buildings and statues
- Increase acidity in water bodies or change the flow of nutrients
- Deplete the soil and damage forests and crops