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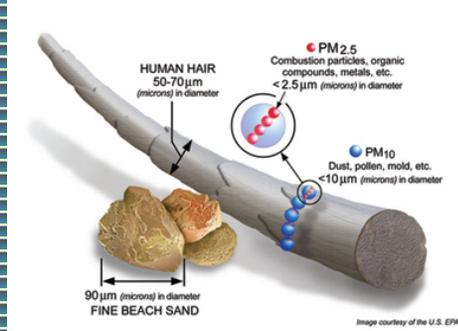
**Particulate Matter (PM)**

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Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

How Big is Particle Pollution?



See a larger version of the image [here](#).

Particle pollution includes "inhalable coarse particles," with diameters larger than 2.5 micrometers and smaller than 10 micrometers and "fine particles," with diameters that are 2.5 micrometers and smaller. How small is 2.5 micrometers? Think about a single hair from your head. The average human hair is about 70 micrometers in diameter - making it 30 times larger than the largest fine particle. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as *primary particles* are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks or fires. Others form in complicated reactions in the atmosphere of chemicals such as sulfur dioxides and nitrogen oxides that are emitted from power plants, industries and automobiles. These particles, known as *secondary particles*, make up most of the fine particle pollution in the country. EPA regulates inhalable particles (fine and coarse). Particles larger than 10 micrometers (sand and large dust) are not regulated by EPA. [More about EPA PM standards](#) and [Regulatory Actions](#).

- **Health:** Particle pollution contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. The size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream. [More information about health.](#)
- **Visibility:** Fine particles (PM<sub>2.5</sub>) are the main cause of reduced visibility (haze) in parts of the United States, including many of our treasured national parks and wilderness areas. [More information about visibility.](#)
- **Reducing particle pollution:** EPA's national and regional rules to reduce emissions of pollutants that form particle pollution will help state and local governments meet the Agency's national air quality standards. [More information about reducing particle pollution.](#)

See the [Fast Facts](#) page for a quick summary of particle pollution basics.

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