



	Description	Sources	Health effects
<b>Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>)</b>	<ul style="list-style-type: none"> <li>Mixture of small solid particles and tiny acid droplets. Some can be seen with the naked eye (dust, dirt, soot, or smoke). Others can be detected only with an -electron microscope.</li> <li>Inhalable “coarse particles” (PM<sub>10</sub>) have diameters between 2.5 and 10 micro—meters. These particles serve as the general indicator of exposure to PM.</li> <li>“Fine particles” (PM<sub>2.5</sub>) have diameters that are 2.5 -micrometers and smaller.</li> <li>There is a strong correlation between the presence of PM<sub>10</sub> and that of other air pollutants.</li> <li>PM<sub>2.5</sub> NAAQS standards: 15 mg/m<sup>3</sup> annual (arithmetic average) and 35 mg/m<sup>3</sup> per 24 hours. PM<sub>10</sub> NAAQS standards: 150 mg/m<sup>3</sup> per 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>Fuel combustion; electricity generation, especially coal-fired power plants; motor vehicles; industrial processes</li> <li>Windblown dust from fields, construction, landfills, and - agricultural processes</li> <li>Wildfires, cooking fires, and brush/waste burning</li> <li>Can be formed in the atmosphere by emissions of other gases (ex. SO<sub>2</sub>, NO<sub>x</sub>, or VOCs)</li> <li>PM<sub>10</sub> is a good measure of the complex mix of particles and dust that result from fuel -combustion in vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Dependent on the size of the particle and how deeply it penetrates into the airway</li> <li>Exposure to PM<sub>2.5</sub> (fine particles) is associated with:<sup>1,2,3,4,5,6,7,8,9,10,11,12,13</sup> <ul style="list-style-type: none"> <li>increased respiratory symptoms, such as irritation of airway, coughing, or difficulty breathing</li> <li>decreased lung function</li> <li>worsening asthma</li> <li>development of chronic bronchitis</li> <li>irregular heartbeat and fatal heart attacks</li> <li>premature death in people with preexisting heart or lung disease</li> <li>ischemic stroke</li> <li>lung cancer</li> </ul> </li> <li>Particle pollution is also linked to:<sup>14</sup> <ul style="list-style-type: none"> <li>low birth weight</li> <li>premature birth</li> <li>chronic airway obstruction and remodeling</li> <li>sudden infant death</li> </ul> </li> </ul>

Source: Table reproduced from “The Clean Air Act A Proven Tool for Healthy Air,” a PSR report released May 2011.

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