

What is Particle Pollution and What Types of Particles are Health Concerns?

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INTRODUCTION

Particle pollution, commonly referred to as particulate matter or PM, refers to a mixture of solid and liquid particles suspended in the air. Particle pollution can be made up of a variety of different components, including acids, inorganic compounds, organic chemicals, soot, metals, soil or dust particles, and biological elements, and comes in a variety of sizes and forms. Particle pollution is always present in the air we breathe, both indoors and out. Some particles are large enough to be seen with the naked eye, such as dust, dirt, soot, or smoke. Others are so minuscule that only an electron microscope can detect them.

Particles of a diameter of 10 micrometres (m) or less cause the most trouble. These tiny particles usually enter the lungs through the nose and throat. When inhaled, these particles can harm the lungs and heart, causing major health problems in those who are most vulnerable, such as those with heart or lung disease, diabetes, older folks, and children. Larger particles (> 10 m) are less dangerous because they don't normally go into the lungs, but they can still irritate the eyes, nose, and throat.

Where Will Particle Pollution Come Back From?

Some particles are emitted directly from a source, such as building sites, unpaved roads, smokestacks, or fires, and are referred to as primary particles. Secondary particles form as a result of intricate air processes involving substances such as sulphur dioxide and nitrogen oxides released by power plants, industry, and automobiles. In the United States, secondary particles account for the majority of fine particle pollution. Particle pollution can also be caused by cooking, smoking, dusting, and vacuuming, especially in enclosed spaces. Fine particles are more likely to be formed by combustion, whereas coarse particles are more likely to be produced by crustal (earth) and biological sources.

Specific Pollution Hindrance Approaches

All potential and actual pollution-generating activities, including those found in the energy, agriculture, federal, consumer, and industrial sectors, can benefit from pollution prevention strategies. For the preservation of wetlands, groundwater supplies, and other vital ecosystems - locations where we want to stop pollution before it starts - prevention methods are critical.

- Use of environmentally benign fuel sources.

In the agricultural sector, pollution hindrance approaches include:

- Reducing the utilization of water and chemical inputs;
- Protection of sensitive areas.

In the industrial sector, samples of P2 practices include:

- Modifying a production method to provide less waste
- Implementing water and energy conservation practices
- Reusing materials like drums and pallets instead of confiscating them as waste

In homes and colleges samples of P2 practices include:

Why is Pollution Hindrance Important?

Pollution hindrance reduces each money prices (waste management and clean-up) and environmental prices (health issues and environmental damage). Pollution hindrance protects the setting by preserving and protective natural resources whereas strengthening economic process through a lot of economical production in business and fewer want for households, businesses and communities to handle waste.

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