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## **Effect of the air pollution on health**

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### **Introduction**

It's a worldwide epidemic that people can't breathe clean air. In 1970, when the National Ambient Air Value Standards were first developed, respiratory illness was the main concern regarding air pollution. Air pollution occurs when harmful substances are discharged into the air and has detrimental effects on both human health and the natural environment. According to the World Health Organization, air pollution accounts for almost seven million deaths annually (WHO). Nine out of ten individuals are now subjected to air pollution levels that are higher than the World Health Organization (WHO acceptable)'s limit, with the greatest danger presented to those living in low- and medium-income nations.

Both natural and anthropogenic activities can contribute to air pollution. Pollutants in the air come in many forms, including gases (such ammonia, carbon monoxide, Sulphur dioxide, nitrous oxides, methane, carbon dioxide, and chlorofluorocarbons), particles (both organic and inorganic), and living molecules. The impacts of air pollution may be felt not only in the built environment, but also by animals, crops, and the natural environment (by climate change, ozone depletion, or habitat destruction) (for example, acid rain).

Previously, the air we breathed was unadulterated and pristine. However, as more and more factories are built and harmful gases are released into the atmosphere, the air is becoming increasingly unhealthy to breathe. In addition, these gases are the root cause of a wide range of illnesses, particularly respiratory ones.



## **Effect of Air Pollution:**

### **Indoor Air Pollution**

Pollutants in the air are often thought to originate from human activities, such as smoke from factories or exhaust from vehicles. The problem, though, is that there are just as many types of indoor air pollution. Indoor air quality can deteriorate if kerosene, wood, or coal are used as heating sources. Ashes and smoke can stick to surfaces and cause irritation to the respiratory system as well as other problems, such as making it difficult to eat or wear clean clothes.

### **Hazardous Air Pollutants**

These are either extremely lethal or extremely dangerous to one's health even in minute quantities. Mercury, lead, dioxins, and benzene are just some of the most prevalent chemicals that are among the almost 200 that are controlled by law. Irritation of the eyes, skin, and lungs can cause immediately, and problems with the blood can develop over time.

### **Greenhouse Gases**

Greenhouse gases slow global warming because they absorb radiation before it can reach space. The result is an increase in world average temperatures, sea levels, extreme weather, deaths from heat, and the spread of deadly diseases. In October of 2016, more than 140 countries agreed to replace these chemicals with safer, more ecologically friendly alternatives. These compounds are utilized in equipment such as air conditioners and freezers.

### **Pollen and Mold**

Airborne mould and allergens from trees, weeds, and grass can pose health risks and are increased by climate change. Although they contribute to air pollution, they are not subject to government regulation and have a tenuous link to human activities at best.

### **Effect of Air Pollution on Health**

Exposure to air pollution has several negative consequences on human health. The outcomes might be categorized as either immediate or delayed.

Illnesses like pneumonia and bronchitis are examples of the short-term impacts that will go away in time. Irritation of the eyes, nose, throat, or skin also falls under this category. Besides these obvious effects, dizziness, nausea, and headaches have all been linked to breathing polluted air.



Air pollution is caused by sources such as waste dumps, factories, and sewage treatment plants. These smells aren't life-threatening by any means, but they're nevertheless unpleasant.

Air pollution can have life-altering impacts that don't surface for years. They are potentially lethal. Chronic exposure to air pollution has been linked to an increased health of cardiovascular disease, lung cancer, and respiratory illnesses including emphysema. Long-term pollution to polluted air can cause vital organs including the brain and spinal cord as well as the immune system and the respiratory system. Birth abnormalities may be caused by exposure to air pollutants, according to some research. About 2.5 million lives are lost each year due to pollution to polluted air, either outside or in their homes.

### **Prevention of Air Pollution**

Nevertheless, air pollution has already reached emergency levels. Still, there are pollutants we may take to lessen air in the air.

**Implement Afforestation-** Planting more trees will increase air quality since plants act as natural air filters. Put in as many seeds for trees as you can. Tree planting has several positive effects on the environment, including increasing oxygen production.

**Using public transport** - Reduce your impact on pollution by taking the bus, air, or subway instead of driving alone or in a carpool. Using public transportation has several benefits, including reducing pollution and gas emissions and saving money.

**Policy for industries-** Countries should enact strict regulations for the filtering of gases in various businesses. In this way, we may lessen the amount of pollution caused by industrial facilities.

**Reduction of forest fires and smoking** - A significant contributor to air pollution is the practice of gathering trash and setting it on fire during dry seasons or when leaves are dry and combustible. In addition, smoking worsens air quality and is harmful to one's health.

**Use of eco-friendly fuel-** We need to switch to using more sustainable fuels like LPG (Liquefied Petroleum Gas), CNG (Compressed Natural Gas), biogas, and others. Because of this, we can reduce emissions of dangerous gases. Above all else, various actions are encouraged all over the world, such as tree planting and the usage of eco-friendly fuel.



### **Evidence of air pollution**

**Mengjia Xu et al. (2018)** did a study in 2018 entitled Health status and air pollution-related socio-economic factors. Findings showed a non-linear correlation between community socioeconomic status and air pollution in metropolitan China, with communities in the middle socioeconomic class experiencing the greatest levels of air pollution. Moreover, the health consequences of air pollution varied according on a person's socioeconomic status. The health effects of self-reported air pollution were highest among those of lower socioeconomic status. Self-reported air pollution's impact on health reduced as socioeconomic level increased.

**Raza, et al (2018)** 2018 study: Air pollution in cycling health impact evaluations. Findings 18 mode shift health studies were found. Most study analysed future cycling. Most of these studies assessed population effect using comparative risk assessment, while others utilised cost calculations. Air pollution exposure was determined by ventilation rate, pollutant concentration, and riding time. Most study on local traffic emissions employed exposure-response functions from city-to-city fine particle background level comparisons. Raised riding offered few health benefits to the general population and elevated fine particle exposure risks for cyclists. Ozone, black carbon, and nitrogen oxides all have exposure-response curves indicating adverse health effects.

### **Conclusion**

The results of air pollutant impacts are complicated by the health repercussions of smoking and other lifestyle choices and exposures, but my study does conclude that air pollution from road traffic is an increasing concern. It must be corrected as quickly as feasible. Pollutant and greenhouse gas emissions from motor vehicles have been greatly reduced because to recent technical advancements, which has helped save countless lives and minimize the severity of environmental impacts like acid rain and global warming.

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