

## **POLLUTION AND ITS TYPES**

The term "pollution" refers to any substance that negatively impacts the environment or organisms that live within the affected environment. The five major types of pollution include: air pollution, water pollution, soil pollution, light pollution, and noise pollution.

## **Air Pollution**



A major source of air pollution results from the burning of fossil fuels. Vehicle and factory emissions are common sources of this type of air pollution. The burning of fossil fuels contributes to the formation of smog, a dense layer of particulate matter that hangs like a cloud over many major cities and industrial zones. Air pollution contributes to respiratory problems such as asthma, lung cancer, chronic bronchitis, and other lung ailments. Nitrogen and sulfur oxides in the air contribute to acid rain, which is a form of precipitation with a lower (more acidic) pH than normal. Acid rain harms forests, species that live in water bodies, and degrades outdoor statues, monuments, and buildings.

## **Water Pollution**

A major source of water pollution is runoff from agricultural fields, industrial sites, or urban areas. Fertilizer can cause algal blooms (an explosive growth of algae), choking out other plants and decreasing the amount of available oxygen necessary for the survival of other species. Raw sewage is another type of water pollutant. When sewage gets into the drinking water supply, serious stomach and digestive issues may result, including the spread of diseases such as typhoid or dysentery. A third source of water pollution is trash. Improperly disposed of items, such as plastic bags, fishing line, and other materials may accumulate in the water and lead to the premature death of animals that get tangled within the garbage.



## Soil Pollution

Soil can become polluted by industrial sources or the improper disposal of toxic chemical substances. Common sources of soil pollution include asbestos, lead, PCBs, and overuse of pesticides/herbicides.

# **Light Pollution**

Light pollution refers to the large amount of light produced by most urban and other heavily-populated areas. Light pollution prevents citizens from seeing features of the night sky and has also been shown to impede the migration patterns of birds and the activities of nocturnal animals.

## **Noise Pollution**

Noise pollution typically refers to humanmade noises that are either very loud or

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disciplified in manner. This type of pollution has been shown to impact the movement of sea mammals, such as dolphins and whales and also impacts the nesting success of birds

#### **INDUSTRY POLLUTANTS**

Industrial pollution can include air pollution like carbon dioxide, monoxide and ozone; water pollution in the form of petroleum spillage, radiation and heat; and other pollutants like heavy metals. These pollutants make their way into delicate ecosystems and damage wildlife and plant life, as well as public health.

### Carbon Dioxide

Industrial pollution contributes to the total amount of carbon dioxide in the atmosphere which could be significant or insignificant to the environment depending on the scientist. However, carbon dioxide can still be a danger to health. In addition to displacing oxygen, carbon dioxide can cause headaches, drowsiness and the inability to concentrate.



# Ozone

Ozone or O3 can be a dangerous form of air pollution if it comes in contact with living things. It's formed by organic gases reacting with nitrogen oxides with sunlight as a catalyst. Ozone is a form of industrial

pollution that results from petroleum processing and storage. Ozone can cause breathing difficulties and long term lung tissue damage. It can also damage rubber and some types of plastic. The prevention of excess organic and nitrogen oxide emissions from power plants and refineries is one way to limit ozone reactions.

# Oil Spills

An oil spill is a type of industrial accident in which oil spills or leaks from a source into the environment. An oil tanker running aground and leaking oil into the ocean is an example. Bad weather, human error and terrorism are the usual causes, although some industries may dump oil illegally to cut costs. Oil spills have detrimental effects on wildlife and the oil may stay in the ecosystem for decades, even after cleanup.

# Heavy Metals

Heavy metals include lead, mercury, arsenic, zinc, copper and are a danger to the environment and public health. Although many heavy metals are the result of industry, automobiles have begun contributing to this type of pollution too through road runoff.

## Water

Sometimes, industry can cause water pollution that can damage many types of ecosystems. Aquatic fish and plant life, animals, and humans are all affected. Polluted water can also reach lakes, rivers, streams and groundwater, making the affected area very large. Petroleum, radiation and heat pollution are among the primary causes of industrial water pollution.

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