



## Causes of water contamination and it affects human health: Solutions

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### Abstract

Water contamination is a significant and a major problem in India. Lately due to industrialization and urbanization in India, this issue has gotten colossal. Right to get to water is an essential common liberty Water pollution spread many diseases like Cholera, Typhoid, Paratyphoid fever, Dysentery, Diarrhoea, Tuberculosis, Hepatitis A, Jaundice, and Amoebiasis etc. Water pollution diseases are single most important factor responsible for nearly 80% of human mortality in India. Life of a human can't be supported with dirtied water. Contamination free water is the lone expectation for the solid life. The underlying driver of a number of sicknesses is the contaminated water. There are various causes liable for contaminating the water. There are many causes of water pollution. The waste from households, factories or agricultural land.

Industrial waste is crammed with lead, asbestos, petrochemicals, and even mercury. All of these chemicals are highly hazardous for both humans and animals life. Dumping an enormous problem because the dump contains everything from plastic, aluminium to glass, Styrofoam, etc. One among the worst sorts of water pollution is oil pollution.

**Keywords:** Health, diseases, water, pollution

### Introduction

Water covers more than 70% of the earth's surface. This is also the most basic requirement for survival. It is also compatible with aquatic organisms and other ecosystems. Polluted water is that the main reason behind numerous diseases. impure water not solely affects the lives of latest folks, however additionally affects the lives of future generations, as a result of its effects can last for an extended time. As we tend to all grasp, clean water is important to healthy life. associate adequate offer of contemporary and clean drink could be a basic would like for all humans on the world, however it's ascertained that several folks round the world are empty this would like. the most supply of fresh pollution are often attributed to the discharge of untreated waste, the discharge of business waste and farmland runoff. Industrial growth, urbanization, and increasing use of artificial organic substances have had serious adverse effects on fresh bodies. Water-borne diseases are infectious diseases that are unfold principally through contaminated water. though these diseases are transmitted directly or through flies or soil, water is that the main thanks to transmit these diseases, so that they are known as water-borne diseases. Drinking contaminated water will unfold cancer, birth defects, and skin, lung, brain, urinary organ and liver-related diseases during this community many times quite anyplace else within the country.

water contamination, the arrival of substances into subsurface groundwater or into lakes, streams, waterways, estuaries, and seas to the place where the substances obstruct valuable utilization of the water or with the normal working of environments. Notwithstanding the arrival of substances, like synthetic compounds, garbage, or microorganisms, water contamination may likewise incorporate the arrival of energy, as radioactivity or intensity, into waterways.

### Causes and effects of water contamination

Water Contamination has harmful effects on the atmosphere, humans, plants and animals. If your company dumps substances on the surface or groundwater while not previous or accidental for example, once a leak), pollution can occur. Modification natural quality. Pollution often outlined in some ways. This typically means one or a lot of substances have accumulated within the water enough to cause issues for animals or humans. the subsequent are six common reasons: one. speedy urban development two. Inadequate waste treatment three. chemical runoff four. Oil spill five. Chemical waste selling half dozen. radioactive material discharge Rapid urban development once an oversized range of individuals furl a dense space, it'll cause physical disturbance to the land. the development of latest roads, homes and industries affects the cleanliness of water through the utilization of detergents, chemicals and exhaust emissions. once it rains, these chemicals are washed into rivers and streams and eventually into drink provides. Improper waste treatment Improper waste treatment is progressively turning into a significant world downside. each time it's discharged, the waste can go somewhere or into a waste material treatment facility, then dump the remaining waste material into the ocean from there. Fertilizer runoff Between folks attempting to stay their spirited, weed-free inexperienced courtyards and farmers dealing with a growing population, fertilizers play a crucial role in inflicting pollution on this planet. The result's the proliferation of dangerous protoctist, that eventually results in the extinction of the many underwater plants and fish. so as to be impure, oil spills within the vehicle and machinery industries are another major reason behind pollution.

The spilled oil mixes with groundwater and reaches streams and rivers. selling chemical waste massive factories are legendary for selling chemicals into the ocean. terribly toxic substances like detergents, PCBs and lead are discharged into the environment daily. atmosphere daily. Moreover, though it's allowed, it doesn't mean that it's safe. Similarly,

accidents that unharness massive amounts of unsafe radioactive chemicals are legendary to occur, and these chemicals are free into the air, water, and soil. Direct access to stream channels

- Excessive water removal from surface water and groundwater
- Runoff from agriculture containing fertilizers and pesticides into surface water
- Runoff containing salt in winter
- Silt and soil on construction sites and riverside erosion on farms • laundry Water and waste
- Fuel leaks
- Food leaks, like farm product and juices

Contamination in water embody a large vary of chemicals, pathogens, and physical, chemical, or sensory changes. Several chemicals are toxic. Pathogens will cause water borne diseases. The physical and chemical changes of water embody acidity, conduction, temperature, and eutrophication. Human diseases are one in all the foremost serious consequences of pollution. In India, urban areas generate around fifty billion liters of business and domestic waste per annum. The country's enlargement of rivers and cities, not to mention weak government management, means the matter can solely modification. Worse. a lot of and a lot of water bodies in India don't seem to be appropriate for human use. The Ganges could be a spot for eighty two of Hindus within the country. Because of uncontrolled pollution, the Ganges is slowly disappearing. Pollution could be a major downside in India. solely regarding 100% of the generated waste is treated; the remainder is discharged into our water bodies as is. Therefore, pollutants enter groundwater, rivers and alternative water bodies. impure water has serious effects on the chassis. we will divide the causes of pollution into two elements, one is direct and also the alternative is indirect. Direct cause: during this class, we will embody those pollutants that directly enter and grime water resources. In industrial areas, industrial waste is that the main supply of pollution, whether or not it's surface water or groundwater. There, industrial waste is discharged directly into the watercourse. business discharges numerous pollutants into waste, as well as serious metals, rosin particles, organic toxins, oils, nutrients, and solids. Emissions even have a heating result, particularly those from power plants, that scale back the obtainable.

Urban waste material is additionally the most reason behind pollution. Sewage, additionally known as waste material, typically contains laundry waste, dishwasher waste, urine, and feces. Eliminating these wastes could be a massive downside in today's country, that is why rivers and lakes are injured. waste material pollution will cause looseness of the bowels, etc. In Punjab, regarding seventieth of pollution is caused by waste material, that not solely pollutes waste material and stream water, however additionally affect ground water.

The broad categories of pollutants in drinking water are as follows, along with illustrations of each:

Water's physical characteristics or appearance are mostly affected by physical impurities. Physical contaminants include silt or organic matter suspended in lakes, rivers, and streams as a result of soil erosion.

Chemical pollutants are substances or elements. These

pollutants could be created by humans or by natural occurrences. Nitrogen, bleach, salts, pesticides, metals, bacterial toxins, and human or animal medications are a few examples of chemical pollutants.

Organisms in the water are biological pollutants. Other names for them include microorganisms and microbiological pollutants. Bacteria, viruses, protozoa, and parasites are a few examples of biological or microbiological pollutants.

Chemical elements that contain radioactive impurities have an imbalanced number of protons and neutrons, which leads to unstable atoms.

Radiological adulterants are chemical rudiments with an unstable number of protons and neutrons performing in unstable particles that can emit ionizing radiation. samples of radiological adulterants include cesium, plutonium and uranium.

### Remedies of water contamination

Resources when water pollution occurs Reduce the risk of water pollution Although many large companies are responsible for polluting our water supply, we can take some measures to help reduce the risk of water pollution. Some things you can do to help keep your water system clean are Never drop grease or any type of grease) for nothing or dispose of. the use of excessive feed and fertilizer will directly cause water pollution. Farmers can pollution by reading and clearly following mixing and instructions, using organic food, and preventing spills. Farmers should also avoid exposing unused chemicals and remaining chemicals and containers to the natural environment. Farmers should also avoid using chemicals near wells, lakes and streams. The correct industrial wastewater treatment process includes removing solid particles, reducing organic waste, and using permitted safe chemicals to remove residual chemical impurities or pollutants to ensure the safety of the water, and the residues before being discharged into the water. Therefore, the body or the environment can be used as a very effective remedy for water pollution. Do not flush daily chemicals or toilets. Do not use the toilet as a trash can. Avoid any flushing down, except toilet paper in the toilet. Do not flush the old medicine down the toilet. Use a small amount of detergent or go to an eco-friendly brand that does not contain phosphates and sulphates. Use pesticides, fertilizers and herbicides as little as possible. Do not dump these drains near the watercourse

### Effects of water contamination

- Nuclear testing offshore throws radioactive particles into the water, destroying aquatic life and flora and disrupting the marine ecosystem.
- Humans who drink contaminated water can develop cholera, dysentery, TB, stomach illnesses, etc.
- Tapeworms, spirals, and other parasites enter the human body along with contaminated water, which causes sickness.
- Remaining hot water from water factories pollutes the water source and heats the surrounding area, killing off nearby plants and animals. Bird populations will decline, and the aquatic ecosystem will lose its balance.
- There will be a shortage of clean water, which all living things require in large amounts.

**How to prevent contamination of water**

- These residual materials from factories and industrial units should be made defect-free prior to execution, together with adequate arrangements for their execution.
- It should be made clear that it is unlawful to pour leftover water or effluent into a river or any other body of water.
- Organic materials need to be oxidized before use.
- Chemicals like bleaching powder and other similar items should be used to eliminate microorganisms in water.
- It's time to cease the nuclear tests being carried out at sea level.
- The general public and society should raise awareness of the dangers posed by water pollution.

**Conclusion**

Water pollution causes many types of diseases because it is very harmful for our health. Water pollution causes great harm to the human body due to water borne diseases like typhoid dysentery etc. and in a way our lives and the lives of our children. Chemical pollution is also causing kidney and liver problems in children and elders, along with this, kidney stones, swelling etc. are also occurring, so we should try to stop water pollution. Sixty percent of the human body is made up of water. Water is the most important natural resource for human life, if water pollution increases due to the carelessness of all of us, then it is harmful for us only, so we should stop water pollution and think about our future generation that our future generation should be healthy and which will benefit the country.

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