

## Biological toxins affect on environment and causing fatal diseases.

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Toxins are biologically produced chemicals with harmful effects on living things. Toxin exposure obviously poses a health risk, but also has significant positive effects across a range of industrial sectors. Drinking water, fish in rivers and ponds, food grown on contaminated fields, playgrounds, residences, and even the air we breathe can all be contaminated by toxic pollutants.

Bacteria, viruses, fungus, and other microbes, together with the toxins they produce, are examples of biological agents. They can have a negative impact on people's health in a number of different ways, from relatively mild allergic reactions to catastrophic medical issues and even death. Some species, such as different mild and Legionella bacteria, are easily found in both the built environment and the natural environment [1]. Many are contagious from one person to another. Environmental poisons cannot be prevented. They can be found in many everyday household goods as well as the food, water, and air we consume. Most are largely undetectable, go unnoticed, and are safe provided exposure is kept to a minimum. The quantity and complexity of human exposure to environmental toxins, which pose health hazards ranging from minor skin irritation to fatal sickness, have been drastically altered by growth in industrial manufacturing, fossil fuel usage, and chemical-intensive crop agriculture.

Although it is difficult to identify environmental toxins as organic or manufactured, it is evident that industrialization and the rising threat of toxins are related [2]. The amount and exposure of any given toxin are the main determinants of its risks, and industrial activities have significantly altered both. Previously, dangerous concentrations of arsenic were only found in naturally occurring concentrations in rocks and soil. However, today, humans also run the risk of being exposed to synthetic arsenic, arsenic waste from coal-burning power plants, as well as arsenic from mining and smelting operations. Plastics and other synthetic materials' widespread use, the extensive use of pesticides and fertilisers required for industrialised agriculture, and the pharmaceutical industry as we know it today are all relatively recent developments [3]. These items have released a large number of chemicals into the environment, and they have extremely complicated impacts on people.

The term toxic load refers to the dangerous chemicals that build up in the body as a result of exposure to things like air and water pollutants, a variety of food additives, chemicals in personal care products and household cleaners, medications, plastics, and other environmental exposures like herbicide and pesticide use [4]. Some easy techniques for lowering

environmental contaminants. fresh air to flow, Open windows to let fresh air into the house, even in the winter months. Use household cleaners that are as non-toxic as possible. Remember that the majority of cleaning jobs may be completed with hot, soapy water or diluted vinegar. Keep in mind to put on gloves, a mask, and open the windows while using ammonia or bleach. Use sunscreen, cosmetics, and personal care items without toxins [5]. This entails staying away from substances that are readily absorbed through the skin, such as triclosan, parabens, phthalates, bisphenols, and sunscreen ingredients like oxybenzone and octinoxate.

The metabolic responses that occur when a potential poison is introduced into an organism completely dictate the effects of a toxin. Environmental factors must be taken into account by toxicologists while studying an organism. As previously established, factors like pressure, heat, and metabolic rate can significantly alter a toxin's effects [6]. Additionally, not every organism responds to poisons the same way. Every creature, even those within a species, can be thought of as a separate biochemical factory. Certain toxins can be handled by some species more adeptly than by others.

A toxin's interaction with an organism's cells determines the precise effects that it has. Some toxins cause the cells' internal ion channels to malfunction, while others can damage the cell membrane or cause DNA to mutate. If the toxin is not removed, all of these situations will eventually result in the creature dying. Organisms filter their blood to remove ions and other free radicals, while their immune systems are used to target and eliminate protein-based toxins. A toxin's atomic structure dictates the harm it can cause.

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