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DISEASES CAUSED BY SOIL AND WATER POLLUTION

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Pollution is a deviation from the normal state of the environment. Any component new to it plays the role of a pollutant. There are two main types of pollution - natural and anthropogenic. Sources of soil pollution are chemicals and microorganisms, the presence of which changes the physical, chemical and biological properties of the soil, which can cause various diseases.

According to statistics from the European Chemicals Agency, there are over 144,000 synthesized chemicals. The US Department of Health estimates 2000 new chemicals every year. The UN Environment Program warns most of these have never been screened for human health safety. In addition, soil receive pharmaceuticals and veterinary medicines from many different sources, such as improper disposal of expired medicines, urban and industrial wastes, irrigation with wasteswater, open defecation and residues from food. There are three main routes of exposure (inhalation, ingestion, and dermal absorption), which are often combined and occur simultaneously. The World Health Organisation estimates that 12 million people – one in 4 – die every from diseases caused by "air water and soil pollution, chemical exposures, climate change and ultraviolet radiation", all of which result from human activity.

Polluted soil is a substrate for the growth of microorganisms that cause fungus (it is usually caused by dermatophyte fungi Trichophyton rubrum, Trichophyton interdigitale, Trichophyton tonsurans), tetanus (the causative agent of tetanus, Clostridium tetani, is a spore-forming bacterium that is a common inhabitant of the intestines of animals and humans and from the intestine, the bacterium enters the external environment, mainly into the soil), dermatitis caused by irritation or allergies, hives, acne or even cancer. Toxic substances in the soil can adversely affect the body and household products, worsening their quality. In addition, there are substances in the soil that can directly affect the production of hormones. The spectrum of diseases caused by dirty water is large. When drinking dirty water, a person can get diarrhea, cholera (infection caused by Vibrio cholerae bacteria), typhus (the causative agent is Salmonella typhi). Water can have an effect on fish, and a person can get poison by eating them. If the water is poisoned by chemical industry wastes, then substances such as mercury, heavy metals, pesticides and so on may be in the water. These substances can cause cancer, neurological problems, severe poisoning and other problems.

There are many ways to purify water: aeration (spraying water to enrich the water with oxygen and remove metal particles), filtration. In everyday life, clean water can be obtained by boiling and filtering (mainly using a carbon filter).

The soil is cleaned as thoroughly as water. There are the following methods: address farming practices, rule of 3 Re (recycle, reduce, reuse), limit pesticides and reforestation.