

Water related Diseases:

Waterborne Disease can be classified into 2 general categories:

- Microbic
 - Non microbic
1. Microbic diseases are those caused by specific organism.
 - a. Bacterial
 - b. Viral
 - c. Protozoan
 - d. Helminthic
 2. Non microbic are those that arise from the presence, or an excess, of certain chemical substances in the water.
 - I. Heavy Metal Poisoning
 - a. Lead poisoning from the use of lead pipes for water supply
 - b. Mercury poisoning from drinking water contaminated with mercury waste.
 - II. Nitrate Poisoning caused by the presence of excessive nitrates in water
 - III. Dental fluorosis or mottled enamel from too much fluoride in water
 3. Water – washed diseases are diseases transmitted from person to person as a result of an inadequate supply of water for personal hygiene and / or domestic cleaning. Examples of these are scabies, lice, typhus, trachoma conjunctivitis.
 4. Water based diseases are those caused by agents spread by contact with or ingestion of water. Ex.: Schistosomiasis
 5. Water related insect vector diseases are transmitted by insects harbouring in water. Examples of these are Dengue, Filariasis and Malaria.

Etiology and Effects of Toxic Agents

Substances found naturally occurring in water as industrial pollutants can be harmful when they reach concentrations above levels established by regulatory bodies.

All chemicals are poisonous in some quantity, so it is the dose or concentration of the chemicals in the water that makes it a threat to human populations

Maximum levels permitted are usually stated in milligrams per liter of water (mg/l)

Pesticides – present in water primarily as a result of vector control, crop spraying, and agricultural runoff and spills.

- Pose increasing problems because they are environmentally persistent and cumulative in the water and the food chains
- Mutagenic and teratogenic

Chlorinated Hydrocarbons – neuropoisons

- Dizziness to convulsions
- Death by cardiac or respiratory arrest