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| **Glossary** |  |
| **Chapter 17** |  |
| **bacteria** | Prokaryotic, one-celled organisms. Some transmit diseases. Most act as decomposers and get the nutrients they need by breaking down complex organic compounds in the tissues of living or dead organisms into simpler inorganic nutrient compounds. |
| **biological amplification** | Increase in concentration of DDT, PCBs, and other slowly degradable, fat-soluble chemicals in organisms at successively higher trophic levels of a food chain or web. Compare bioaccumulation. See biomagnification. |
| **carcinogen** | Chemicals, ionizing radiation, and viruses that cause or promote the development of cancer. See cancer. Compare mutagen, teratogen. |
| **dioxins** | Family of 75 chlorinated hydrocarbon compounds formed as unwanted by-products in chemical reactions involving chlorine and hydrocarbons, usually at high temperatures. |
| **dose** | Amount of a potentially harmful substance an individual ingests, inhales, or absorbs through the skin. Compare response. See dose-response curve, median lethal dose. |
| **dose-response curve** | Plot of data showing the effects of various doses of a toxic agent on a group of test organisms. See dose, median lethal dose, response. |
| **epidemiology** | Study of the patterns of disease or other harmful effects from exposure to toxins and diseases caused by pathogens within defined groups of people to find out why some people get sick and some do not. |
| **hazard** | Something that can cause injury, disease, economic loss, or environmental damage. See also risk. |
| **infectious disease** | Disease caused when a pathogen such as a bacterium, virus, or parasite invades the body and multiplies in its cells and tissues. Examples are flu, HIV, malaria, tuberculosis, and measles. See transmissible disease. Compare nontransmissible disease. |
| **median lethal dose (LD50)** | Amount of a toxic material per unit of body weight of test animals that kills half the test population in a certain time. |
| **mutagen** | Chemical or form of radiation that causes inheritable changes (mutations) in the DNA molecules in genes. See carcinogen, mutation, teratogen. |
| **neurotoxin** | Chemical that can harm the human nervous system (brain, spinal cord, peripheral nerves). |
| **nontransmissible disease** | Disease that is not caused by living organisms and does not spread from one person to another. Examples include most cancers, diabetes, cardiovascular disease, and malnutrition. Compare transmissible disease. |
| **parasite** | Consumer organism that lives on or in, and feeds on, a living plant or animal, known as the host, over an extended period. The parasite draws nourishment from and gradually weakens its host; it may or may not kill the host. See parasitism. |
| **pathogen** | Living organism that can cause disease in another organism. Examples include bacteria, viruses, and parasites. |
| **response** | Amount of health damage caused by exposure to a certain dose of a harmful substance or form of radiation. See dose, dose-response curve, median lethal dose. |
| **risk** | Probability that something undesirable will result from deliberate or accidental exposure to a hazard. See risk analysis, risk assessment, risk management. |
| **risk analysis** | Identifying hazards, evaluating the nature and severity of risks associated with the hazards (risk assessment), ranking risks (comparative risk analysis), using this and other information to determine options and make decisions about reducing or eliminating risks (risk management), and communicating information about risks to decision makers and the public (risk communication). |
| **risk assessment** | Process of gathering data and making assumptions to estimate short- and long-term harmful effects on human health or the environment from exposure to hazards associated with the use of a particular product or technology. |
| **risk communication** | Communicating information about risks to decision makers and the public. See risk, risk analysis. |
| **risk management** | Use of risk assessment and other information to determine options and make decisions about reducing or eliminating risks. See risk, risk analysis, risk communication. |
| **teratogen** | Chemical, ionizing agent, or virus that causes birth defects. Compare carcinogen, mutagen. |
| **toxic chemical** | See poison, carcinogen, hazardous chemical, mutagen, teratogen. |
| **toxicity** | Measure of the harmfulness of a substance. |
| **toxicology** | Study of the adverse effects of chemicals on health. |
| **transmissible disease** | Disease that is caused by living organisms (such as bacteria, viruses, and parasitic worms) and can spread from one person to another by air, water, food, or body fluids (or in some cases by insects or other organisms). Compare nontransmissible disease. |
| **virus** | Microorganism that can transmit an infectious disease by invading a cell and taking over its genetic machinery to copy itself and then spread throughout the body. Compare bacteria. |