

Holozoic Nutrition



Food is required by all the organisms. The animals depend upon plants and animals for their food.

The animal nutrition includes the nutrient requirements, the mode of food intake, and the utilization of food in the body. The intake of food is called ingestion.

The ingested food is broken down into simpler substances in the process called digestion. The mode of food intake varies in different organisms. Let us have a look at the different ways of taking food by the organisms.



Mode of Taking Food:

Although all organisms require food, the way they take it into their body differs from each other. All of them have special adaptations that help them for this. They could be as follows:

- 1. Chewing:** This mode involves the biting and grinding of the food in the mouth by the teeth. Example: humans, dogs etc.
- 2. Scraping:** In this mode, the food is scraped off the surface by the jaw or an organ. Example: snails, ants etc.
- 3. Siphoning:** In this mode, the food is sucked into the mouth. Example: bees, butterflies etc.
- 4. Capturing and swallowing:** In this mode they usually capture the food and then swallow them. Example: lizard, etc.
- 5. Sucking:** This mode involves the piercing of the food and then sucking the liquid out of it. Example: mosquitoes, etc.
- 6. Sponging:** In this mode, the saliva is secreted over the food to dissolve it in order to draw it into the mouth. Example: houseflies etc.

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It is a process by which animals take in their food. It involves different steps namely, ingestion, digestion, absorption, assimilation and egestion. Human beings exhibit holozoic mode of nutrition involving five basic steps.

Ingestion: The process of taking food into the body is called ingestion.

Digestion: the process in which the food containing large, insoluble molecules is broken down into small, water soluble molecules is called digestion.

Absorption: The process in which the digested food passes through the intestinal wall into blood stream is called absorption.

Assimilation: The process in which the absorbed food is taken in by the body cells and used for energy, growth and repair is called assimilation.

Egestion: The process in which the undigested food is removed from the body is called egestion.



Types of holozoic organisms

Holozoic organisms are categorized into four types as follows:

1. Herbivorous: This is the group of animals that feed only on plants or their products. Example: cow, sheep, deer, rabbit, camel, kangaroo, giraffe, etc.

2. Carnivorous: This is the group that feeds on the meat of other animals only. Example: tiger, lion, bear, snake, eagle etc.

3. Omnivorous: This group of animals feed on plants as well as the meat of other animals. Example: dog, human beings, etc.

4. Scavengers: This group of animals feed on dead and decaying meat left by other animals. Example: vulture, crows, jackal, etc.