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G.D.GOENKA PUBLIC SCHOOL

Subject: Science (7th)

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Nutrition is the process of taking in food and converting it into energy and other vital nutrients required for life.

Types of Nutrition

Broadly, there are two types of nutrition among living organisms, namely:

- **Autotrophic mode**
- **Heterotrophic mode**

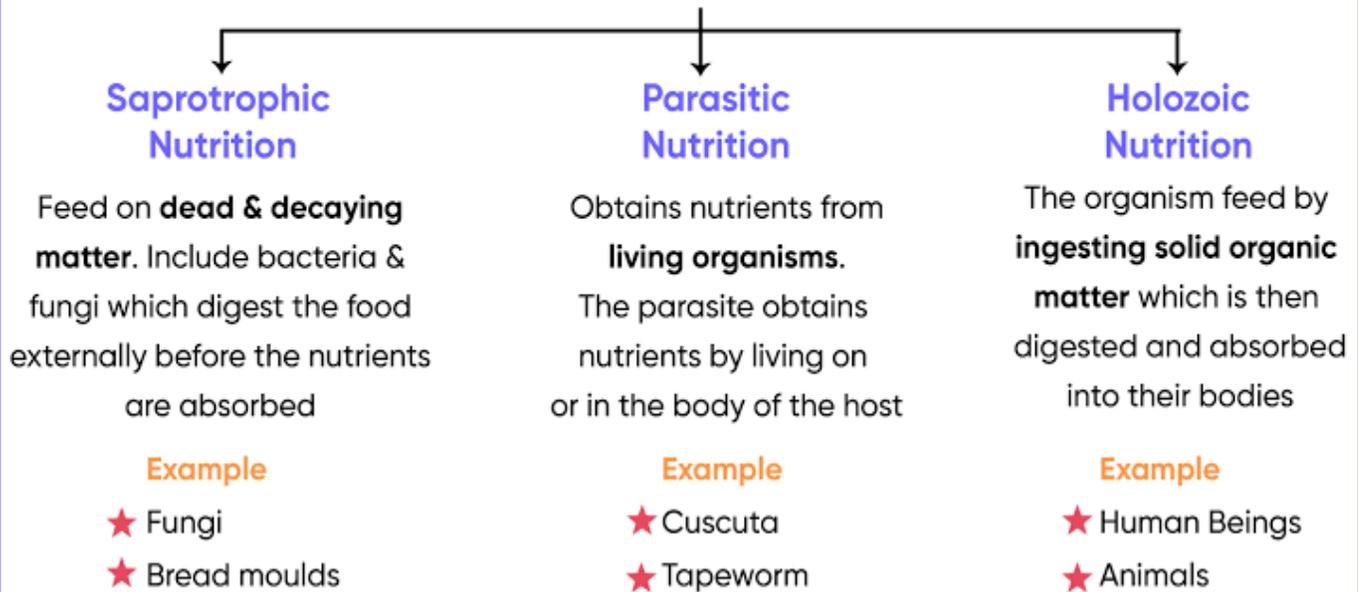
Autotrophic Nutrition:

The term "autotrophic" is formed by the combination of two terms, "auto" meaning self, and "trophic" meaning nutrition.

The mode of nutrition in which an organism synthesizes its own food using simple substances is called Autotrophic mode of nutrition. Organisms that exhibit this kind of nutrition are called Autotrophs. Green plants are autotrophs as they prepare their own food using Carbon dioxide, Sunlight, Water, Minerals.

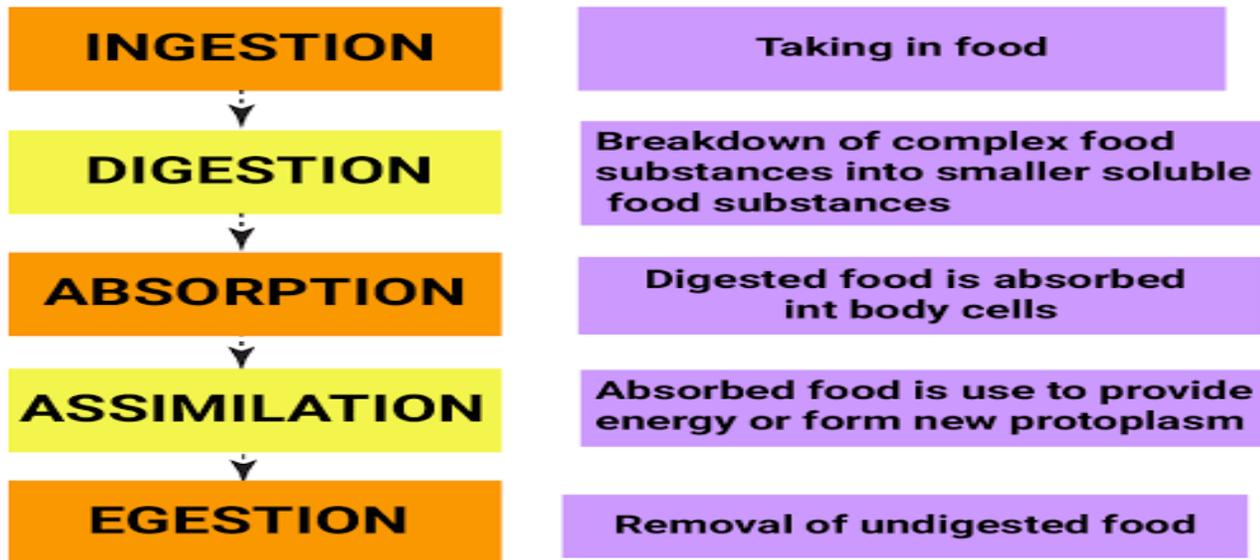
Heterotrophic Nutrition Heterotroph is an organism that is unable to synthesize its own food, and therefore, has to rely on other sources, specifically plant and animal matter.

TYPES OF HETEROTROPHIC NUTRITION



The process of nutrition in human includes the five steps:

The 5 processes in digestion

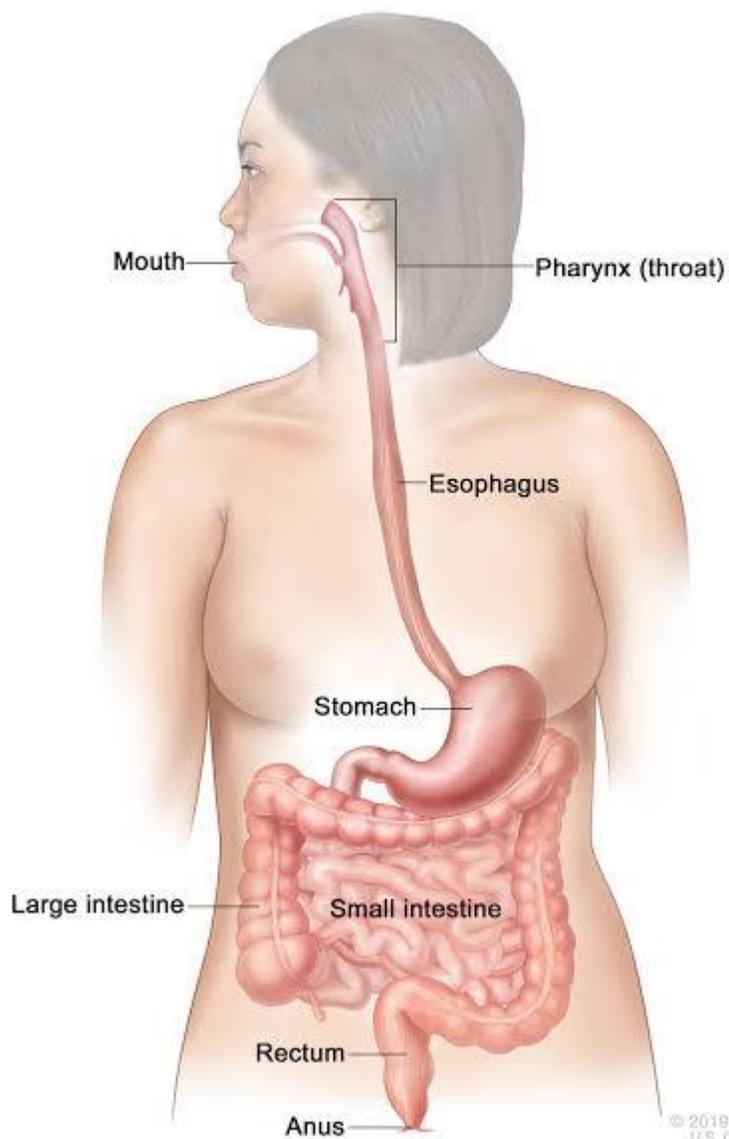


The entire process of nutrition is carried out in the alimentary canal.

The alimentary canal is mainly referred to as the pathway by which food enters our body and moves out through the anus after digestion. It is a tube-like structure which starts from the mouth and ends in the anus. The alimentary canal plays a primary role in human digestion and is also termed as the digestive tract.

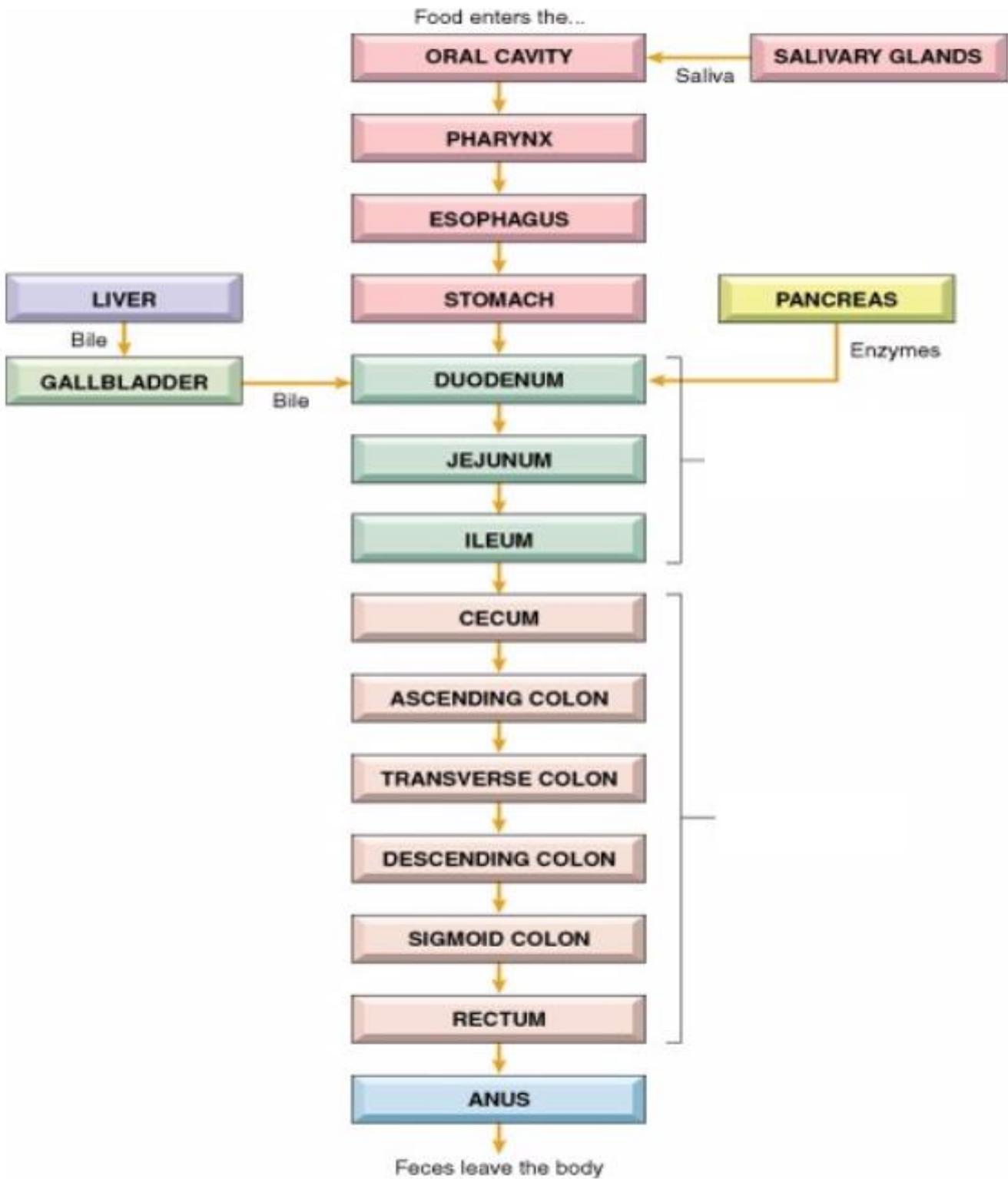
Organs of the Alimentary canal

Digestive Tract



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Path of food into the alimentary canal



Various Digestive Organ

- Salivary glands
 - Gastric glands
 - Liver
 - Pancreas
 - Intestinal glands
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- Bile is a fluid that is made and released by the liver and stored in the gallbladder. Bile helps with digestion. Bile carries out emulsification .
 - Emulsification is the process of breaking down the fat into smaller blood cells which makes it easy for enzymes to function and digest food.
 - Enzyme is a chemical secretion that helps to carry out specific reaction in the body.

Vestigial organ: A vestigial organ or structure is an organ or structure found in a species which is not being used as it is in other species. Vestigial organs are organs that are still found in humans and other animals but no longer serve a purpose.