Vocabulary: Digestive System

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Absorption – the taking in of one substance by another.

In the digestive system, absorption refers to the passage of nutrients and water through the walls of the small and large intestines.

Amino acid – an organic molecule containing a carboxyl and an amino group.

Amino acids combine in long folded chains to form proteins.

Proteins must be broken down into amino acids before they can be absorbed.

Carbohydrate – organic molecules containing hydrogen, carbon, and oxygen.

Carbohydrates are a major source of energy in the diet.

Chemical digestion – chemical breakdown of nutrients through the action of enzymes and other substances.

Chyme – a thick liquid of partially digested food produced by the stomach.

Complex carbohydrate – a long carbohydrate molecule formed by chains of sugars.

Complex carbohydrates are also called polysaccharides.

Examples of complex carbohydrates are starch, glycogen, and cellulose (fiber).

Digestion – the breakdown of food into simpler components that can be absorbed and used by the body.

Digestive system – a group of organs that work together to break down and absorb nutrients from food, as well as eliminate the resulting wastes.

Elimination – the process by which wastes are removed from the body.

Enzyme – a molecule, usually a protein, which catalyzes a chemical reaction.

Digestive enzymes break down nutrients into simpler chemicals.

Fat – organic molecule consisting of three fatty acids attached to a glycerol “backbone.”

Fats are used to maintain healthy skin and hair, as insulation against cold weather, as an essential component of cells, and as a source of energy.

Fatty acid – a component of a fat molecule, along with glycerol.

Fats must be broken down into fatty acids and monoglycerides before absorption.

Fiber – plant material in food that is difficult to digest.

Fiber helps food move smoothly through the digestive system.

Fiber is classified as soluble and insoluble.

Soluble fiber is digested by bacteria in the large intestine. The resulting Calories are absorbed through the walls of the large intestine.

Insoluble fiber passes through the digestive system without breaking down.

Food calorie – a unit used to measure the energy in foods.

The food calorie (Cal) is equal to 1,000 gram calories (cal).

Food calories are known as kilocalories (kcal) in many parts of the world.

Mechanical digestion – physical breakdown of foods.

Examples of mechanical digestion include chewing in the mouth, churning in the stomach, and emulsification of fats by bile.

Monoglyceride – a molecule that results from the breakdown of fats, consisting of a fatty acid attached to the glycerol backbone.

Nutrient – a substance that is used by the body for energy, growth, or other processes essential to life.

Peristalsis – wavelike muscle contractions that push food through the digestive system.

Protein – an organic molecule consisting of a long chain of amino acids folded into a particular shape.

Proteins are essential building blocks of muscles, skin, bone, hair, and most other body structures.

Enzymes are proteins that help digest foods.

Starch – a common complex carbohydrate used as a source of energy.

Sugar – a simple carbohydrate that may be a monosaccharide or a disaccharide.

Monosaccharides consist of single carbohydrate units.

Glucose and fructose are examples of monosaccharides.

Disaccharides consist of two linked carbohydrate units.

Sucrose and lactose are examples of disaccharides.

Villus – tiny, finger-like projection in the wall of the small intestine.

Nutrients and water are absorbed through the thin walls of the villi.