



Nutrition - obtain and process nutrients  
 Nutrient -  
 Carbohydrate }  
 Fat/Lipid } Big must be broken down  
 Protein } Hydrolysis  
 Minerals }  
 Vitamins } small just  
 Water } Absorb

growth  
 repair  
 energy  
 regulation

Ingest - take in food (mouth)  
 Digest - break down food (Gastrointestine tract)  
 Egest - Get rid of undigested waste  
 \*Absorb - take in across membrane

Mechanical digestion - Physical break down  
 smaller size, same stuff  
 Chemical digestion - Chemical break down - new  
 stuff, smaller molecule, hydrolyze, enzymes  
 usually into building blocks

Organ	Kind of Digestion	How? Helpers?
Mouth	Mech. & Chem. starch → sugar	Teeth/tongue - mech. } <u>STARCH</u> Amylase - enzyme Salivary glands
Esophagus	—	Takes food to stomach - peristalsis
Stomach	Mech. & Chem. protein → amino acid	Churn - mechanical } <u>PROTEIN</u> Protease (Pepsin) enzyme Gastric juice - enzyme, acid = mucus
Small Intestine	Chemical protein → aa starch → sugar Fats → FA & glycerol	Help from liver (gallbladder) bile } <u>ALL ORGANIC Material</u> Help from pancrease
Large Intestine	* Absorption due to villi (large surface area)	Absorbs water & vitamin bacteria
Rectum	—	Store feces
Anus	—	Eliminates undigested waste

Anorexia Bulimia Ulcer Diarrhea Constipation Appendicitis Gallstones