CONCEPT: DIGESTION OF PROTEINS

- The main purpose of protein digestion is to produce amino acids for the _____ of new proteins.

□ Digestion begins in the stomach. □ Final _____ takes place inside the small intestine.

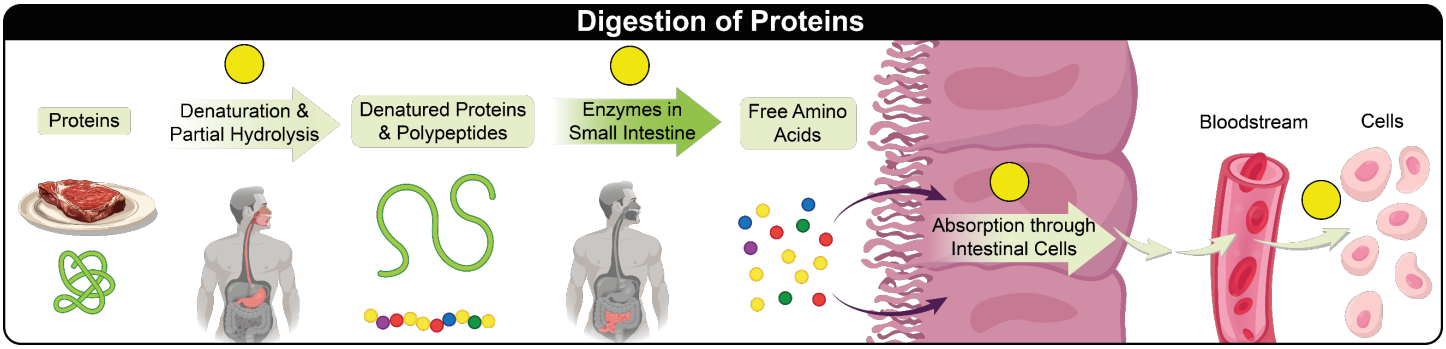
A After mechanical digestion in the mouth, food enters the stomach.

□ Stomach acid _____ proteins. □ Pepsin breaks large proteins into _____.

B Proteases in the small intestine (Trypsin, chymotrypsin, etc.) hydrolyze proteins to amino acids.

C Amino acids are _____ absorbed into the bloodstream through intestinal cells.

D Delivered to cells through the bloodstream.



EXAMPLE: Which of the following statements is incorrect about the digestion of proteins?

a) Denaturation in the stomach makes the peptide bonds accessible to proteases.

b) Pepsin in the stomach breaks large proteins into smaller polypeptides.

c) Proteases in the small intestine hydrolyze proteins and polypeptides into free amino acids.

d) Protein digestion begins in the mouth by enzymes in the saliva.

PRACTICE: Which of the following statements is correct about food digestion?

a) Lipids are completely hydrolyzed inside the stomach through acidic hydrolysis.

b) Unlike lipids, monosaccharides and amino acids are directly absorbed into the bloodstream through intestinal cells.

c) Similar to proteins, large polysaccharide chains are also denatured in the stomach.

d) Carbohydrates and amino acids are digested to produce energy while lipids enter anabolic pathways.