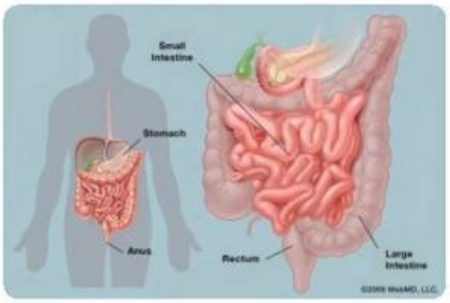
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# The Small and Large Intestines

Read the informational passages below about the two main intestinal organs of the digestive system. Then, answer the multiple-choice questions that follow each section.

## Part 1: The Small Intestine




Many people assume the stomach is the body's main digestive organ, but it is not. In fact, **most chemical digestion** takes place in the **small intestine**. The small intestine is a tube roughly 20 feet long, and food typically spends between 2 and 6 hours traveling through it. Food is moved along this long pathway by **peristalsis**, which is a series of wave-like muscular contractions.

The small intestine produces many specialized digestive enzymes that finalize the breakdown of nutrients so they can be absorbed into the bloodstream:

- **Trypsin:** A protease (protein-digesting enzyme) that finishes the breakdown of **proteins** into **amino acids**. (Protein digestion begins earlier in the stomach.)
- **Amylase:** An enzyme that finishes digesting **carbohydrates** into **simple sugars**. (Carbohydrate digestion begins earlier in the mouth.)
- **Lipase:** An enzyme that catalyzes the digestion of **fats**. Fat digestion *begins* in the small intestine.

### Small Intestine Questions

**1.** In which organ does the majority of chemical digestion occur?

☐ A) Stomach ☐ B) Small intestine

☐ C) Mouth ☐ D) Esophagus

**2.** How long is the small intestine, and approximately how long does food remain inside it?

☐ A) 5 feet long; 30 minutes to 1 hour ☐ B) 10 feet long; 12 to 18 hours

☐ C) 20 feet long; 2 to 6 hours ☐ D) 30 feet long; 24 to 48 hours

**3.** What wave-like muscular contraction pushes food through the small intestine?

☐ A) Peristalsis ☐ B) Circulation

☐ C) Diffusion ☐ D) Respiration

**4.** Which enzyme completes the breakdown of proteins into amino acids in the small intestine?

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☐ A) Amylase

☐ B) Lipase

☐ C) Trypsin

☐ D) Bile

**5.** Where in the digestive system does the chemical digestion of fats begin?

☐ A) In the mouth

☐ B) In the stomach

☐ C) In the small intestine

☐ D) In the large intestine

## Part 2: The Large Intestine

Chemical digestion is completely finished once food exits the small intestine. Any material that has not been absorbed into the bloodstream moves into the **large intestine** to become **waste**. Just like in the small intestine, this watery waste is pushed forward by the muscular contractions of **peristalsis**.

The main job of the large intestine is to **absorb excess water and dissolved vitamins**, solidifying the remaining waste for excretion from the body. Maintaining the proper balance of water absorption is critical for digestive health:

- If the large intestine absorbs **too much water**, the waste becomes overly dry and hard, causing **constipation**.
- If the large intestine does **not absorb enough water**, the waste remains liquid, causing **diarrhea**.

### Large Intestine Questions

**6.** At what point in the digestive tract is chemical digestion completed?

☐ A) In the mouth

☐ B) In the stomach

☐ C) In the small intestine

☐ D) In the large intestine

**7.** What happens to food matter that cannot be absorbed into the bloodstream?

☐ A) It enters the large intestine as waste.

☐ B) It returns to the stomach for further breakdown.

☐ C) It is converted directly into enzymes.

☐ D) It travels to the lungs for excretion.

**8.** What is the primary function of the large intestine?

☐ A) Breaking down complex starches into simple sugars

☐ B) Absorbing excess water and dissolved vitamins

☐ C) Secreting trypsin and amylase

☐ D) Starting the digestion of dietary fats

**9.** What digestive problem occurs when the large intestine absorbs *too much* water from waste?

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☐ A) Heartburn

☐ B) Diarrhea

☐ C) Constipation

☐ D) Ulcers

**10.** What occurs when the large intestine does *not* absorb enough water from waste?

☐ A) Waste becomes hard and dry.

☐ B) Waste remains watery, leading to diarrhea.

☐ C) Food begins to be digested again.

☐ D) Peristalsis completely stops.

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