

Enzymes Function in the Small Intestine

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Introduction

Digestive enzymes are vital biological catalysts that break down food components into simpler molecules, aiding nutrient absorption and ensuring our bodies obtain necessary energy and nutrients. With a complex system comprising various organs and glands, the digestive process depends heavily on these enzymes, particularly in the stomach, small intestine, and pancreas. As interest in digestive health rises, digestive enzymes have become popular in the fields of medicine, nutrition, and supplementation. This article explores the types, functions, mechanisms, health benefits, and the role of supplemental enzymes in promoting digestive health. Digestive enzymes are proteins that accelerate the breakdown of food into absorbable forms. Originating in the salivary glands, stomach, pancreas, and small intestine, they target macronutrients: carbohydrates, proteins, and fats. Without adequate digestive enzymes, the digestive process is less efficient, leading to incomplete digestion, malabsorption of nutrients, and possible digestive issues. Carbohydrates, primarily amylase, break down carbohydrates into simpler sugars, such as glucose, which can be absorbed. Gastric lipase initiates fat digestion in the stomach, but the primary action takes place in the small intestine through pancreatic lipase. These enzymes are specific to disaccharides-lactase breaks down lactose, sucrose digests sucrose, and maltase acts on maltose. These

enzymes function primarily in the small intestine, allowing the absorption