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Nota di contenuto	Preface -- Amino acids in intestinal physiology and health -- Amino acid metabolism in the liver: nutritional and physiological significance -- Amino acids in circulatory function and health -- Epithelial dysfunction in lung diseases: effects of amino acids and potential mechanisms -- Amino acid metabolism in the kidneys: nutritional and physiological significance -- Amino acids in health and endocrine function -- Amino Acids in Reproductive Nutrition and Health -- Impacts of amino acids on the intestinal defensive system -- Maternal

nutrient restriction and skeletal muscle development: Consequences for postnatal health -- Metabolism of amino acids in the brain and their roles in regulating food intake -- Metabolism and functions of amino acids in the skin -- Metabolism and functions of amino acids in sense organs. .

Sommario/riassunto

This edited volume comprehensively highlights recent advances in the metabolism, nutrition, physiology, and pathobiology of amino acids in all the systems of humans and other animals (including livestock, poultry, companion animals, and fish). It enables readers to understand the crucial roles of amino acids and their metabolites in the health and diseases of the circulatory, digestive, endocrine, immune, muscular, nervous, reproductive, respiratory, skeletal, and urinary systems, as well as the sense organs (eyes, ears, nose, skin, and tongue). Readers will learn that amino acids are not only the building blocks of protein, but are also signalling molecules, as well as regulators of gene expression, metabolic processes and developmental changes in the body. This knowledge will guide nutritional practices to improve the growth, development and health of humans and other animals, as well as prevent and treat chronic (e.g., obesity, diabetes, and cardiovascular disorders) and infectious (e.g., bacterial, fungal, parasite, and viral) diseases. Editor of this volume is an internationally recognized expert in nutritional biochemistry. He has over 38 years of experience with research and teaching at world-class universities in the area of amino acid biochemistry, nutrition, and physiology. He has published more than 625 papers in peer-reviewed journals, 62 chapters in books, and authored two text/reference books, with an H-index of 117 and more than 55,000 citations in Google Scholar. This publication is a useful reference for professionals as well as undergraduate and graduate students in animal science, biochemistry, biomedical engineering, biology, human medicine, food science, kinesiology, nursing, nutrition, pharmacology, physiology, toxicology, veterinary medicine, and other related disciplines. In addition, all chapters provide general and specific references to amino acids in systems health for researchers and practitioners in biomedicine, animal and plant agriculture, and aquaculture, and for government policy makers.
