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Preface

Nutrition can be considered one of the most important factors influencing physiological processes in health and disease. In the past decades it has become clear that nutrition in early life can influence health outcome. Studies showing a relation between intrauterine and early postnatal undernutrition and the development of cardiovascular disease, diabetes mellitus and hypertension during adulthood are still the center of scientific interest. Epidemiological studies also focus on the influence of nutritional habits during childhood and adolescence on the development of health problems later in life including abnormalities in fat and bone metabolism (Ish-Shalom et al.) and the gastrointestinal tract.

In the meantime our knowledge on nutritional requirements and the role of different nutrients in growth and development has rapidly been increasing. New research tools, like stable isotope studies, have made it possible to investigate in vivo normal metabolic processes and the consequences of congenital and acquired disorders on these processes in different age groups. These new insights are of paramount importance especially in infancy and childhood, when most of the requirements for energy and essential nutrients are necessary for growth. Based on recent scientific data formulae are developed for oral and enteral use, in which the composition of macro- and micronutrients are fine-tuned for nutritional intervention in a range of inherited and acquired disorders. Undoubtedly scientific work in the near future will keep changing our opinions.

In this book, new insights into the clinical and therapeutic potential of the interaction between immunological dysfunction and wasting and malnutrition is described (Heyman et al.). The nutritional problems arising in specific diseases like cystic fibrosis (Wilshanski et al.), inflammatory bowel disease (Simpser et al.) and short bowel syndrome (Jeejeebhoy) are discussed. A broad updated comprehensive review of the new fuels to the gut (Frie et al.) and the
possible role of nucleotides in infant formulae are presented (Kuchan et al.), as well as the attitude towards hyperlipidemia (Kaluski et al.) and osteoporosis. Nutritional support of the critically ill patient (Kallas and Dimand) and the nutritional aspects of obesity including the possible role leptin plays in the scene (Figueroa-Colon) are also discussed.

This book, written by the leading experts in nutrition, provides an update on different nutritional issues, important for today and tomorrow, based on the best evidence available now and directed towards practical and clinical application into the second millennium.

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