

British Journal of Nutrition (2009), **101**, 150–150
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Book Review

(First published online 27 October 2008)

David A Bender. *Introduction to Nutrition and Metabolism*, 4th ed. Boca Raton: CRC Press 2007. £26.99 (paperback), pp. 416. ISBN 10 1420043129, ISBN 13 978 1 42004312 9

Introduction to Nutrition and Metabolism is, in the Publisher's words, 'an authoritative description of the nutritional biochemistry essential to understanding nutrient function'. This description is well justified; the clear accounts of metabolic pathways, their integration and control, and their nutritional and physiological importance are detailed, but easy to follow. The book contains eleven chapters in just under 400 pages, and begins with a chapter on why we need to eat. This is followed by chapters covering the characteristics of enzymes and their roles in metabolic pathways, the role of ATP in metabolism, digestion and absorption, and the metabolism of carbohydrates and fats. Before moving on to protein metabolism, there are chapters on nutrition and chronic disease and overweight/obesity. Chapter 10, on the integration and control of metabolism, serves to cover both general and specific features relating to metabolic control, and the final chapter is a detailed description of the role of micronutrients.

New features in the Fourth Edition include some colour to enhance the text, and 'key point' summaries at the end of each chapter. The author indicates that he added these rather reluctantly in response to suggestions from students – reluctantly because he felt that the students should themselves be able to draw up key points from the chapters. However, I think they are an extremely useful addition, both for students and instructors, because they can serve to reassure readers that their key points match up with those that the author considers important. Similarly, the objectives listed at the start of each chapter are very useful in conveying what the student should be capable of by the end of the chapter. Also new to this edition are problems at the end of each chapter. Some of these are relatively short and based on data interpretation, while others are longer, open-ended and often based on clinical

case studies. There are no answers in the book itself, but instructors are able to obtain them from CRC Press. For anyone who uses case studies in their teaching, this feature is a real bonus. The problems would also serve as useful revision tools for students, although it would perhaps be important for the students to be able to obtain the answers to ensure that their understanding of the problem is correct. Finally, the book contains a CD, which contains an elementary review of the basic chemistry required as a foundation for the book, some PowerPoint presentations to accompany each chapter (which teachers are allowed to use in lectures, providing they give due acknowledgement to the author), self-assessment quizzes, a virtual laboratory enabling the reader to conduct various experiments and watch the results unfold, and a food composition programme enabling the analysis of nutrients in more than 2700 foods.

Bringing metabolism alive in the classroom is always a challenge. This is real biochemistry – the sort that some nutrition students are a little afraid of at first – but this book embeds the principles of metabolism within our current understanding of nutrition and dietary requirements, and the clarity and pitch are an asset. This book would make a useful addition to a library, and the extra resources are a bonus for both students and teachers who want to go beyond the text itself and gain or convey a greater depth of understanding.

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doi:10.1017/S000711450811497