

Book reviews

The Glucose Revolution. Anthony Leeds, Jennie Brand Miller, Kaye Foster-Powell and Stephen Colagiuri. Hodder & Stoughton (Australia) Pty Ltd. 1998. Paperback, pp. 230. £9.99. ISBN 0 340 76826 6

This book adds to the growing body of literature on the role of carbohydrate in human health. It has long been recognised that carbohydrates are absorbed at different rates. Since the 1980s the potential benefits to human health of carbohydrates that are absorbed slowly, those with a low glycaemic index, has gained recognition. *The Glucose Revolution* explains the glycaemic index of foods and provides clear guidelines and suggestions on how to incorporate low-glycaemic-index carbohydrate into our diets.

This book immediately grabs the reader's attention. The immediate interest stems from the fact that there is something in this book for virtually every reader. *The Glucose Revolution* brings a clear and positive message that the consumption of slowly digested carbohydrate can achieve better control of blood glucose levels. Following a brief introduction the book is divided into three sections. The blend of text, which includes discussion of research studies and short case-studies, together with aide memoires and clear diagrams to highlight pertinent points work well and serves to make this a very readable text.

The first section, 'What you need to know about the G.I. factor', provides the scientific and highly readable explanation of what comprises a healthy, balanced diet. Chapters 1–3 consider the meaning of a balanced diet, the role of carbohydrate, the concept of glycaemic index (the G.I. factor) and the value of high-carbohydrate and low-fat diets for everyone. In essence, carbohydrates with a high glycaemic index, such as bread and potatoes, are quickly digested and released into the bloodstream as glucose, providing an immediate energy boost, whereas carbohydrates with a low glycaemic index, such as rolled oats and pasta, slowly release glucose into the bloodstream, are more satisfying, and help to control hunger better. In chapter 4, 'The G.I. factor and you: your questions answered', questions arising within the introductory chapters are dealt with and the authors' advice at the outset: 'don't be tempted to skip the early chapters' are justified. Following on from these general introductory chapters, chapters 5–9 cover the potential of the G.I. factor for reducing weight, for improving sports performance, for controlling blood sugar levels and possibly for reducing the risk of heart disease. It is within these chapters that the central message about glycaemic index brings home the importance of considering glycaemic index as a means of benefiting health and sporting performance.

In section two, 'Your guide to low G.I. eating', the authors provide the reader with the know-how to plan and prepare for low G.I. meals. Within chapters 10 and 11 there

are numerous practical pointers on planning and cooking low G.I. meals and chapter 12 contains a good selection of easy-to-prepare recipes for meals and snacks and imaginative ideas for including low glycaemic index foods into the diet.

The final section, 'The G.I. factor table', is the resource section to the book. Here the authors provide a comprehensive list of the glycaemic index, fat and carbohydrate content of specific amounts of known foods and sources of further reading. However, it is not possible to interpret the quoted glycaemic index for cited foods given that the origin of the data, number of studies involved etc. is not given. Indeed, in putting together the glycaemic index values for these foods I was not entirely convinced by the authors' assumption that were: 'Australian data [on the glycaemic index of a particular food] are different from the rest of the world...Australian data rather than the average [are shown]'

Overall, this is a general interest text which will appeal to a wide audience, both healthy individuals and those with diabetes, obesity and/or at risk of heart disease. Personally, I found it frustrating that research studies discussed throughout the text were not directly cited. However, for the interested reader references to these research studies appear to be given within the 'Sources of other reading' in section three.

The majority of people in the community are totally confused by the mixed messages being widely promoted about the importance of good nutrition, not just in relation to health but in the arena of chronic illness. Given that the number of diet and healthy-eating books published appear to match current high levels of obesity, diabetes and heart disease in our society, it is a relief to come across a text which gives a clear, positive and scientifically sound dimension to the healthy eating message. This book is a good practical guide for both professionals, patients and the general public. As with all healthy-eating messages, putting theory into practice remains the dilemma but I came away from this book feeling positive and with a host of ideas about how I might include low glycaemic foods in my diet.

Alison Gallagher

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Egg Nutrition and Biotechnology. J. S. Sim, S. Nakai and W. Guenter. Wallingford: CABI Publishing. £75. ISBN 0 85199 330 3

The original conference, and subsequent proceedings which are contained within this book, was obviously organized by scientists from the developed world. There was considerable time at the conference (and therefore space within the book) devoted to egg biotechnology. This appears to be

defined in the context of changing the chemical composition of eggs so as to reduce the incidence of those (western, i.e. associated with affluent lifestyles) human diseases which are commonly, but seemingly erroneously, linked to egg consumption, the role of the egg in developments in immunology and how the functionality of the egg and its components might impact on the field of food processing technology. 'Pharming', the use of animals to generate products of human therapeutic value (not confined to the egg: we also have milk proteins) is currently a particularly innovative and important field of animal science and developments in this discipline are welcome.

An important message would be that the egg is an extraordinarily versatile commodity which can be tailored to meet a number of disparate requirements in an age of molecular genetics. An equally important, but seemingly overlooked, message might be that the egg is a much maligned human dietary component: there is little that it does not contain of importance to human nutrient requirements. Perhaps it is the current obsession with changing the chemical composition of the egg so as to better meet human requirements that has contributed further to its negative image among the human population: such a development confirms prejudices!

What is wrong with being pro-active? An egg- (that is, an egg without any attempts to alter its 'natural' composition) a-day is in fact very good for (most) you! It is often forgotten that the egg is the means whereby avian species (usually, in the context of human use, the chicken) reproduce. It would be an evolutionary anomaly if the contents of the egg were not able to support life. Homeostatic mechanisms are of fundamental importance, which does of course raise the perplexing question of whether or not attempts to change egg composition to meet perceived human demands are in fact sustainable by the bird. We could always inject *n* 3 polyunsaturated fatty acids into eggs to improve the image of this commodity...

Accordingly, I was somewhat intrigued to note (in a book whose title includes the phrase 'egg nutrition') that there was not much prominence given to the value of the egg as an important provider of nutrients to a large proportion of the world's population not concerned with controlling their fatty acid intake or whether their

mayonnaise is of the required texture. Perhaps the rather worrying developments in pharmacology, where those medical conditions confined to the developing world are given less prominence in research than the so-called diseases of affluence, e.g. obesity, are now extending themselves to animal science.

In addition, I was somewhat surprised to see presentations which considered the economics of egg production. These seem somewhat out of place in the book of this title, the more so as economic analyses were presented in terms which would not be familiar, or indeed appropriate, to many parts of the world.

There is one observation which must give cause for concern. Well-presented reviews are contained in the proceedings alongside reports of individual experiments which tend to draw conclusions that are included as major research findings. On closer inspection, many of these findings would probably not have been accepted and published in peer-reviewed articles. I was intrigued to note in the preface that all presentations were regarded by the editors as excellent: there are indeed some excellent reviews covering fundamentally important topics, but equal prominence is given to chapters which, in no more than two pages, cover nothing more than advertising of a commercial product in a manner which can hardly be described as scientifically rigorous. Unfortunately, readers will receive no guidance as to which is which and will have to decide for themselves. It would have been better had the editors separated the two types of contribution (invited keynote papers and submitted abstracts): failure so to do dilutes the importance of the former whilst giving undue prominence to the latter.

A review should presumably conclude with a recommendation, or otherwise, as to the value of the text to the purchasing public. The price immediately places the book beyond the means of all but, for example, University or Research Institute libraries and even they might balk at the cost. However, there is much within the text which will be of interest. Good luck in finding it.

Julian Wiseman

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