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Book Review

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Pamela Mason, *Dietary Supplements*, 3rd ed. London: Pharmaceutical Press 2007. £39.95 (hardback), pp. 387. ISBN 978 0 8536965 3

There is a great deal of disagreement, and even heated debate, about the role of dietary supplementation. Some nutritionists are of the opinion that supplements are unnecessary, because a balanced diet will provide all nutrients required. Indeed, any nutritionist ‘worth their salt’ would always prioritise dietary modification above any other means of meeting nutrient needs. Nevertheless, it is clear that many individuals resist acquiring healthy-eating habits. The UK National Diet and Nutrition Surveys repeatedly show that large proportions of the UK population fail to achieve their reference nutrient intake (RNI) for a range of nutrients. How significant this may be to the health of the individual will, of course, depend on individual nutrient requirements, which are generally unknown. However, it seems likely that a proportion of individuals who fail, over an extended period of time, to achieve the RNI for one or more nutrients will suffer less-than-optimal health as a result. The value of dietary supplements is that they can be used to bridge gaps between actual and target intakes of nutrients or to provide an ‘insurance cover’ for those uncertain of the quality of their diet. While it has been shown time after time that poor food choice jeopardises nutrient intake, energy intake is another very important factor, and one which is not so amenable to healthy eating advice. Micronutrient intake closely follows energy intake, so situations where nutrient gaps may arise include those where total energy intake is low, for example, in sickness, in old age, during periods of weight loss or being female.

In this book the potential benefits of dietary supplements are astutely differentiated from the misinformation or downright hype available on the Internet and elsewhere. And the conclusions drawn are cautious. Each nutrient is presented as a monograph in a flexible format designed to accommodate the disparate nature of the nutrients covered. Intended as a reference book, the monographs on essential nutrients and nutrient metabolites are comprehensive and well referenced. However, treatment of herbal extracts is patchy: Ginkgo, Ginseng, Garlic and Guarana are included as individual monographs, but many popular herbs are not covered. Excluded are: Valerian, Agnus-castus, Saw Palmetto, Devil’s claw, Feverfew, Black cohosh and St John’s wort. This is unfortunate, as products containing these herbs are among the first to have achieved traditional herbal registration (THR) status in the UK in accordance with the European Union Directive 2004/24/EC on Traditional Herbal Medicinal Products. In the not-too-distant future there are likely to be a lot more

THR-registered herbal products on the market, as unlicensed herbal products are withdrawn, before the requirement for full implementation of the Directive in 2011.

Dietary Supplements deals with individual nutrients and the impact on human health that results from their deficiency or from dietary supplementation. It is disappointing that multi-nutrient supplements were not mentioned, as these comprise a large part of the popular market. Wide consumption of these types of supplements has allowed epidemiological studies to be undertaken, many of which have shown positive effects on health. On the other hand, there is excellent coverage of most nutrients, and especially of fatty acids derived from fish. Focus on *n*-3 fatty acids is understandable as there has been more research published on these than on all the other supplements put together. To reflect this, the monograph on ‘Fish oils’ is the biggest in the book – amounting to fourteen pages and including four pages of references. There is a very informative discussion of the merits of fish oil (from fish body) *v.* fish liver oil, in terms of avoidance of toxicity due to vitamin A. However, it is disappointing that the now outdated UK Department of Health 1994 recommendation of 200 mg/d of active *n*-3 fatty acids is mentioned as a target intake for adults rather than the more recent (2004) UK recommendation of a minimum of 450 mg/d.

This is a handbook which would be of particular interest to health professionals, who would benefit from ready access to an up-to-date and well-referenced resource. Having devoted most of my professional life to researching and teaching the role of micronutrients in human nutrition, I welcome this 3rd edition of Pamela Mason’s book, first published in 1998. I recognise the monumental task of assessing the evidence base of clinical efficacy for such a wide range of compounds. In this 3rd edition, ten new monographs are included and the use of maximum safe upper levels for vitamins and minerals used as supplements is introduced for the first time. The relatively short time between editions reflects our increasing understanding of the health-protective role of micronutrients.

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