

ABC_{of} Nutrition

FIFTH EDITION

Edited by Wilma Leslie, Catherine Hankey, and Mike Lean



WILEY

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Nutrition

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Foreword

Now, in the second quarter of the twenty-first century, and 100 years after the discovery of vitamins – thought at the time to have solved the last challenge linking food with health, human nutrition has re-emerged as a critically important factor for health and well-being.

The economic and social changes of the past 50–100 years have created a new world, characterised by urbanisation and globalisation, with reductions in poverty and also increases in social inequalities and disparity. We are now living in a world in which malnutrition and nutritional deficiencies, the nutritional problems that affected humans since our earliest origins, often co-exist with obesity and diseases of over-nutrition, emerging with an epidemic pace without time for evolutionary adaptation. This paradoxical coexistence operates in virtually every country of the world, in all cities, often in the same household, and even in the same individual. It creates the ‘double burden of nutritional-related diseases’, a massive challenge for prevention and treatment.

The worldwide adoption of dietary patterns characterised by easily overconsumed high-calorie ultra-processed foods, and high reliance on foods from animal sources, coupled with a general reduction of daily physical activity, is considered the fundamental promoter of the ongoing epidemics of overweight/obesity and secondary cardiometabolic diseases. Unhealthy current prevalent dietary patterns are associated with many other chronic diseases, including diabetes, cardiovascular diseases, metabolic dysfunction associated liver disease, chronic kidney disease, several types of cancer and premature cognitive impairment. The globalised production of these kinds of foods is conducted at the cost of massive soil exploitation, reductions in plant and animal diversity, industrial over-crowded farms and excessive production of carbon dioxide and methane. Obesity and over-nutrition are thus linked to pollution and global warming in a new ‘syndemic’ presenting a long-term sustainability challenge for the human species. The continuous and globalised growth of the market economy (in particular industrial food production) has saved millions of people from severe malnutrition, famine and extreme poverty, but it is now

presenting new bills in terms of chronic multi-morbidity, disability and healthcare costs, and environmental damage.

Pharmaceutical research has produced and is continuously inventing very effective medications that can improve and control many individual components of nutrition-related chronic diseases. They can delay both acute life-threatening events and end-stage complications, but the huge costs of modern pharmacologic treatments for chronic conditions are challenges for sustainability and worldwide affordability. Indeed, their costs are creating additional forms of inequalities and disparities in medical management that are ethically problematic, in particular for healthcare systems whose foundations were directed at universal health coverage. Pharmacological management is of course not feasible for primordial prevention – it does not reach the roots of the disease processes.

Since the antiquity, good balanced nutrition, from a variety of food groups, has been considered the foundation of healthy living. Healthful nutrition and nutritional interventions have re-emerged now as the fundamental and logical solution when facing the epidemics of nutrition-related diseases. Extensive scientific evidence, accumulated over recent years, has demonstrated how correctly balanced nutrition can prevent and treat many nutrition-related diseases, including the majority of preventable early deaths (cardio-metabolic diseases and cancer). A better understanding of human nutrition is therefore increasingly needed worldwide, widely across scientific communities, by lay-people, the media and ultimately by politicians if both health and wealth are to be protected. The search for food or diet solutions to our social and personal health problems and wellbeing is almost desperate in the population. Many responses to this demand are produced and driven by market forces and not based on firm scientific evidence. Indeed myths and disinformation around food and health are often used constructively by major industry sectors to market products which in reality offer no benefit. We are living in a world where dieting and nutritional beliefs are presented much more as a matter of faith than as evidence-based scientific facts. This creates further confusion, may

stimulate inappropriate individual behaviours and diverts attention from effective medical treatments or nutritional changes.

Living and working in this complex and sensitive environment, present and future healthcare workers have a responsibility to know, and deliver, correct nutritional information. That is required both at the individual level in daily clinical activity, and also when informing the public and policymakers in a more general preventive setting. I am sure that reading this

important and comprehensive book *ABC of Nutrition* will help to form and reinforce a strong and committed nutritional community. The book is written by a distinguished group of international experts in human nutrition, with up-to-date knowledge of the research literature. It presents the evidence about nutrition in an easily accessible way and addresses some of the large amount of misinformation which is circulating in the media about foods and health.

Luca Busetto, 2025.

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