

Keep fit for life

Meeting the nutritional needs of older persons



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Abbreviations & acronyms

| | |
|---------------------|---|
| ADH | Antidiuretic hormone |
| AVP | Arginine vasopressin |
| BMR | Basal metabolic rate |
| BIA | Bioelectrical impedance |
| BCM | Body cell mass |
| BMI | Body mass index |
| BUN | Blood urea nitrogen |
| CNCD | Chronic noncommunicable diseases |
| CHD | Coronary heart disease |
| DHA | Docosahexaenoic acid |
| DNA | Deoxyribonucleic acid |
| DTH | Delayed-type hypersensitivity (skin test) |
| EPA | Eicosaenoic acid |
| FAO | Food and Agriculture Organization of the United Nations |
| FWD | Free water deficit |
| IL-1 | Interleukin-1 |
| IL-2 | Interleukin-2 |
| IU | International units |
| NCD | Noncommunicable disease |
| NIDDM | Non-insulin-dependent diabetes mellitus |
| NK | Natural killer |
| NRS | Normal reference standards |
| 1RM | One repetition maximum |
| PEM | Protein-energy malnutrition |
| Ppm | Parts per million |
| PUFA | Polyunsaturated fatty acids |
| RDA | Recommended daily allowance |
| RE | Retinol equivalents |
| RMR | Resting metabolic rate |
| RNA | Ribonucleic acid |
| WHO | World Health Organization |
| UNU | United Nations University |
| USDA | United States Department of Agriculture |
| VO ₂ max | Maximal oxygen uptake |

Foreword

The World Health Organization promotes health and well-being throughout the life course; this includes the attainment of the highest possible level of health and quality of life for the largest number of older persons, who are defined as people over 60 years of age.

In order to achieve the ultimate goal of healthy ageing and active ageing, WHO has developed a policy framework (Annex 1), which it introduced during the Second World Assembly on Ageing (Madrid, 8–12 April 2002). The framework focuses on such areas as:

- preventing and reducing the burden of disabilities, chronic disease and premature mortality;
- reducing the risk factors associated with noncommunicable diseases and functional decline as individuals age, while increasing factors that protect health;
- enacting policies and strategies that provide a continuum of care for people with chronic illness or disabilities;
- providing training and education to formal and informal carers;
- ensuring the protection, safety and dignity of ageing individuals;
- enabling people as they age to maintain their contribution to economic development, to activity in the formal and informal sectors, and to their communities and families.

Given the impact that good nutrition and keeping fit have on health and well-being in later life, WHO, in collaboration with the Tufts University USDA Human Nutrition Research Center on Aging, organized a consultation to review the scientific evidence linking diet and other factors—especially exercise—affecting nutritional status, disease prevention and health promotion for older persons (Boston, MA, 26–29 May 1998; see Annex 2 for list of participants). The consultation focused primarily on practical issues, including the establishment of explicit recommendations to improve the health and nutritional status of older persons in a wide variety of socioeconomic and cultural settings.

In this context, it is important to note that, despite the rapidly increasing proportion of older persons in the populations of developing countries, there is a scarcity of information concerning this group's specific nutritional needs.

Notwithstanding a deliberate effort to include relevant evidence in this volume wherever possible, the reality is that the majority of studies concerning older persons are still undertaken in industrialized countries. The degree of relevance of the information presented here remains to be verified by increased investigations in developing countries, which continue to be a high nutrition research priority.

During the production of a comprehensive report, representing the outcome both of the preparatory work and of the consultation itself, it was recognized that new information emerging in several key areas should also be included. The combined results presented here are intended as an authoritative source of information for nutritionists, general practitioners, gerontologists, medical faculties, nurses, care providers, schools of public health and social workers. The specific recommendations concerning nutrient intakes, food-based dietary guidelines, and exercise and physical activity should also interest a larger audience, including the general reader.

The main body discusses the epidemiological and social aspects of ageing, health and functional changes experienced with ageing, the impact of physical activity, assessment of the nutritional status of older persons, and nutritional guidelines for healthy ageing. Additional material covers food-based dietary guidelines for older adults (Annex 3)—with particular emphasis on healthy ageing and prevention of chronic noncommunicable diseases—and guidelines for promoting physical activity among older persons (Annex 4).

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