PART 1 UNDERSTANDING OLDER PEOPLE AS CONSUMERS OF FOOD AND BEVERAGES

Older people, food and satisfaction with life
M Dean, Queens University Belfast, M M M Raats, University of Surrey, UK and K G Grunert, University of Aarhus, Denmark

- Introduction
- Satisfaction and quality of life
- How does food contribute to quality of life?
- Factors impacting on satisfaction with food-related life
- Food-related goals and resources
- Ways of enhancing quality of life through food
- References

Demographic and cultural differences in older people’s food choices and meal patterns
M L Wahlqvist, National Health Research Institutes and M-S Lee, National Defense Medical Centre, Taiwan, A Kouris-Blazos, Monash University, Australia

- The relevance of food choice and food patterns with ageing
- Commonality and difference in eating
- Regions
- The example of Chinese-speaking people
- Conclusions and policy implications
- References

Appetite and ageing
L M Donini and C Cannella, "Sapienza" University of Rome and C Savina, "Villa delle Querce" Clinical Rehabilitation Institute, Italy

- Introduction
- Regulation of food intake control
- Anorexia of ageing
- Conclusions
- Sources of further information and advice
- References

Sensory perception of food and ageing
S Nordin, Umeå University, Sweden

- Introduction
- Function and general role of the chemical senses
- Chemosensory perception and food intake
- Age-related changes in chemosensory perception
- Consequences of age-related chemosensory changes for food intake and health
- Future trends
- References

The social significance of older people’s meals
C Fjellstrom, Uppsala University, Sweden

- Introduction
- The dependent older person
- Social and cultural implications of food and meals
- Conclusions and future trends
- References

Gender and food in later life: shifting roles and relationships
K Davidson, S Arber and H Marshall, University of Surrey, UK

- Introduction
Older people’s consumption of alcoholic beverages: social significance and health implications
C de Morais, C Afonso and M D Vaz de Almeida, Porto University, Portugal
- Introduction
- Alcohol consumption by elderly populations
- Social significance of alcohol consumption across cultures
- Health implications of alcohol drinking
- Conclusions
- References

PART 2 EXTENDING FUNCTIONALITY INTO LATER LIFE

Undernutrition: diagnosis, causes, consequences and treatment
J E Morley Saint Louis University, USA and W A van Staveren, Wageningen University, The Netherlands
- Introduction
- Causes and consequences of undernutrition: the downward health spiral
- Diagnosis of undernutrition
- Micronutrient deficiency
- Treatment of weight loss
- Ethics
- Conclusions
- References and further reading

Ageing and changes in body composition: the importance of valid measurements
M Deurenberg-Yap, Ministry of Health and P Deurenberg, Singapore
- Introduction
- Changes of body composition with age
- Body composition methodology
- Body composition measurements in the elderly
- Future trends
- References

Interaction between diet and physical activity in older people
H C G Kemper, VU University Medical Center, The Netherlands
- Introduction
- Rate of living and energy expenditure
- Physical inactivity as a risk factor for chronic degenerative diseases
- Energy balance, interaction between diet and activity
- Measurement methods of physical activity
- Future trends
- Sources of further information and advice
- References and further reading

Prevention of Alzheimer’s disease: implication of nutritional factors
G Abellan van Kan and B Vellas, University Hospital, France
- Introduction
- Risk factors for Alzheimer’s disease (AD)
- Antioxidants
- B Vitamins
- Alcohol
- Dietary fats
- Conclusions
- References and further reading

**Brain lipids and ageing**
*J M Bourre, Université Paris Descartes, France*
- Introduction
- Main lipids in the brain
- The influence of diet on biochemical changes during ageing
- Relationship between cognitive changes during ageing and lipids
- Lipids and sensory organs
- Desaturases, diet and antioxidants
- Omega-6 fatty acids
- Omega-9 fatty acids
- Saturated fatty acids
- Trans fatty acids
- Conclusions
- Acknowledgements
- References

**Nutrition and bone health in the elderly**
*T Cederholm, Department of Public Health and Caring Sciences/Clinical Nutrition and Metabolism, Sweden*
- Introduction
- Epidemiology of osteoporosis
- Reduced bone health: definition of osteoporosis
- Determinants of bone health
- The role of calcium and vitamin D in osteoporosis
- Energy intake, body mass and bone health in the elderly
- Protein and bone health in the elderly
- Nutritional treatment after a hip fracture
- Other nutrients of potential importance for bone health
- Conclusions
- References

**Nutrition and immune function in the elderly**
*B Lesourd and M Ferry, Faculté de Médecine de Clermont-Ferrand, France*
- Introduction
- Immune responses in the very healthy elderly: primary immune ageing
- Immune responses in the frail elderly: common or secondary immune ageing
- Immune responses in diseased, undernourished elderly: tertiary immune responses
- Conclusions
- References

**Nutrition and gut health in older people**
*A Ouwehand, K Tiikonen, H Mäkeläinen, S Lahtinen and N Rautonen, Danisco H&N, Finland*
- Introduction
- Age-related changes in the gastrointestinal tract of the elderly
- Intestinal immune function of the elderly
- Intestinal microbiota of the elderly
- Functional foods for the elderly
- Future trends
- Sources of further information and advice
- References

**Nutrition and eye-related disorders**
*E J Johnson, Jean Mayer USDA Human Nutrition Research Center on Ageing, USA*
- Introduction
- Etiology of cataracts and age-related macular degeneration (AMD)
- Dietary intake and blood levels of nutrients and eye disease
- The effect of nutrient supplements on eye disease risk
- Clinical recommendations/treatment guidelines
- Conclusions
- References

**Beauty food: nutrition to support the skin**
*S Buchwald-Werner, C Gärtner and A Mehling, Cognis GmbH, Germany*
- Introduction
- Skin
- Nutrients
- Food applications of skin nutrients
- Future trends and markets
- Sources of further information and advice
- References

**Nutrition and the metabolic syndrome in the elderly**
*E J M Feskens, Wageningen University, The Netherlands*
- Introduction
- Metabolic syndrome in the elderly
- Nutrition and the treatment of the metabolic syndrome
- Diet and the prevention of the metabolic syndrome (MetS)
- Conclusions
- References

**Fat-soluble vitamins and ageing**
*E Rock, Institut National de la Recherche Agronomique, France*
- Introduction
- Vitamin D
- Vitamin K
- Vitamin A/provitamin A carotenoids
- Vitamin E
- Conclusions
- Sources of further information and advice
- References

**Water-soluble vitamins and ageing**
*K L Tucker, Tufts University, USA*
- Introduction
- B vitamin complex
- Vitamin B1, thiamine
- Vitamin B2, riboflavin
- Vitamin B3, niacin
- Pantothenic acid
- Vitamin B6, pyridoxine
- Vitamin B7, biotin
- Vitamin B9, folate
- Vitamin B12
Phytoestrogens and the health of older women
Y T van der Schouw, University Medical Center Utrecht, The Netherlands
- Introduction
- Phytoestrogens
- Cardiovascular disease
- Breast cancer
- Bone health
- Cognitive function
- Future trends
- Sources of further information and advice
- References

Food-drug interactions in older people
R Witkamp, Wageningen University and TNO Quality of Life, The Netherlands
- Introduction
- Drug use in the elderly
- Over-the-counter and herbal preparations
- Effects of nutrition on drugs: background and mechanisms
- Age-related physiological changes relevant for pharmacology
- Conclusions
- References

Dietary supplement use in the elderly: benefits and risks
S Brownie, Southern Cross University, Australia
- Introduction
- International trends
- Prevalence of supplement use
- Characteristics of older supplement users
- Types of supplements consumed by older people
- Motivation for supplement use
- Circumstances when nutrient supplementation is indicated
- Potential problems associated with supplement use
- Sources of further information and advice
- Conclusions
- References

PART 3 DEVELOPING FOOD PRODUCTS AND SERVICES FOR OLDER PEOPLE

Food safety and older people
M A Gettings, Penn State Cooperative Extension, USA
- Introduction
- Food handling behaviors and practices
- Changing behaviour
- Future trends
- Conclusions
- Sources of further information and advice
- References

Developing nutrition education programs for older people
N R Sahyoun and A L Anderson, University of Maryland, USA
- Introduction
- Translational research
- Evidence-based nutrition programs (EBNP)
- Developing nutrition education programs for older adults
- A framework for nutrition intervention
- Future trends
- References

Quality of feeding assistance care in nursing homes
S F Simmons, Vanderbilt University and A Rahman, VA Medical Center, USA
- Introduction
- Quality assessment
- Translation of nutrition interventions into practice
- Culture change at mealtimes
- Future trends
- Conclusions
- Sources of further information and advice
- Acknowledgements
- References

Preparing meals in later life
C Pfau, Max-Rubner-Institute, Federal Research Institute for Nutrition and Food, Germany and A Saba, Istituto Nazionale di Ricerca per gli Alimenti e la Nutrizione, Italy
- Introduction
- Meal preparation and the use of convenience foods in later life
- Findings of the food in later life project concerning foods which ease meal preparation
- Future trends
- References

Designing new foods and beverages for the ageing
A I de Almeida Costa, Portuguese Catholic University, Portugal
- Introduction
- Consumer-led new product development: the concept and process in the food and beverage industry
- Consumer-led food product development for the ageing: the case of home meal replacements
- Conclusions and future trends
- Acknowledgements
- References