Table of Contents:
Section 1: Research Methodology

Part A: Assessment Methods for Research and Practice

Chapter 1. Dietary Assessment Methodology

- Abstract
- I Introduction
- II Dietary Assessment Methods
- III Dietary Assessment in Different Study Designs
- IV Dietary Assessment in Special Populations
- V Selected Issues in Dietary Assessment Methods
- Acknowledgments
- References

Chapter 2. Assessment of Dietary Supplement Use

- Abstract
- I Introduction
- II Methods for Assessing Dietary Supplement Intake
- III Dietary Supplement Composition Databases for Analysis of Dietary Supplement Intake
- IV The Dietary Supplement Label
- V Authoritative Information and Resources About Dietary Supplements
- VI How to Report Problems with Dietary Supplement Intake
- Conclusions
- References

Chapter 3. Physical and Clinical Assessment of Nutritional Status

- Abstract
- I Introduction
- II Assessment of Body Size and Shape
- III Assessment of Body Composition
- IV Clinical Considerations in Assessment of Nutrition Status
- V Conclusion
- References

Chapter 4. Energy Requirement Methodology

- Abstract
- I Introduction
- II Components of Daily Energy Expenditure
- III Total Energy Expenditure
- IV Recommended Energy Intakes
- References

Chapter 5. Metabolomics

- Abstract
- I Introduction
- II Specimens
- III Metabolomics Analytical Tools
- IV Data Analysis
- V Applications to Food and Nutrition
- VI Summary
- Acknowledgments
- References

Part B: Research and Applied Methods for Observational and Intervention Studies

Chapter 6. Translational Research: Concepts and Methods in Dissemination and Implementation Research

- Abstract
- I Introduction
- II Key Concepts in Translational Research
- III Common Frameworks in D&I Research
- IV Common Study Designs and Approaches in D&I Research
- V Measures in D&I
- VI Examples from the Literature
- VII Additional Resources
- VIII Conclusions
Chapter 32. Nutritional Management for Gestational Diabetes

- Abstract
- I Introduction
- II Prevalence
- III Risk Factors
- IV Complications Associated with GDM
- V Screening and Diagnosis
- VI Weight Gain in Pregnancy
- VII Monitoring in Pregnancy
- VIII Nutrition Management
- IX Physical Activity
- X Pharmacological Therapy
- XI Diabetes Self-Management Education and Behavioral Approach
- XII Postpartum
- XIII Conclusion
- References

Part F: Cancer

Chapter 33. Interaction of Genetic Factors With Nutrition in Cancer

- Abstract
- I Introduction
- II Background and Definitions
- III Mechanisms of Diet-Gene Interactions
- IV Methodological Issues
- V Diet-Gene Interactions and Cancer
- VI Future Directions
- References

Chapter 34. Nutrition and Cancers of the Breast, Endometrium, and Ovary

- Abstract
- I Introduction
- II Breast Cancer
- III Endometrial Cancer
- IV Ovarian Cancer
- V Summary and Conclusion
- References

Chapter 35. Nutrition and Prostate Cancer

- Abstract
- I Introduction
- II Descriptive Epidemiology of Prostate Cancer
- III Studies of Diet in Relation to Prostate Cancer
- IV Genetics and Gene-Environment Interactions
- V Conclusions and Implications for Prevention and Treatment
- References

Chapter 36. Nutrition and Colon Cancer

- Abstract
- I Introduction
- II Fruits, Vegetables, and Legumes
- III Meat
- IV Milk and Dairy Foods
- V Whole Grains
- VI Beverages
- VII Summary
- References
Part G: Gastrointestinal Health and Disease

Chapter 37. Intestinal Microbiota and Diet in Health

• Abstract
• I Introduction
• II Distribution and Diversity of the Human Intestinal Microbiota
• III Bacterial Colonization, Succession, and Metabolism
• IV Functions of the GI Tract Microbiota
• V Methodology for Studying Intestinal Microbiota
• VI Influence of Diet on Intestinal Microbiota
• VII Microbiome-Associated Biomarkers
• VIII Challenges in the Field
• References

Chapter 38. Gut Microbial Metabolism in Health and Disease

• Abstract
• I Introduction to the Gut Microbiota
• II Conclusion
• References

Chapter 39. Nutritional Management of Inflammatory Bowel Disease and Short Bowel Syndrome

• Abstract
• I Inflammatory Bowel Disease
• II Short Bowel Syndrome
• III Conclusions
• References

Chapter 40. Nutrient Considerations in Lactose Intolerance

• Abstract
• I Introduction
• II Lactose in the Diet
• III Digestion of Lactose
• IV Loss of Lactase Activity
• V Diagnosis of Lactose Malabsorption
• VI Lactose Malabsorption and Intolerance Symptoms
• VII Lactose Digestion, Calcium, and Osteoporosis
• VIII Dietary Management for Lactose Malabsorption
• IX Gene Therapy for Lactose Intolerance
• X Prebiotics as Treatment for Lactose Malabsorbers
• XI Summary
• References

Chapter 41. Nutritional Considerations in the Management of Gluten-Related Disorders

• Abstract
• I Introduction
• II Symptoms of Celiac Disease
• III Diagnosis of Celiac Disease
• IV Treatment of Celiac Disease with a Gluten-Free Diet
• V Management of the Complications of Celiac Disease
• VI Summary
• References

Chapter 42. Nutrition and Cystic Fibrosis

• Abstract
• I Overview of Cystic Fibrosis
• II Malnutrition in CF
• III Nutrition Assessment
• IV Nutrition Management
• V Conclusions
• References

Part H: Bone Health and Disease

Chapter 43. Current Understanding of Vitamin D Metabolism, Nutritional Status, and Role in Disease Prevention

• Abstract
Chapter 44. Osteoporosis: The Early Years

- Abstract
- I Introduction
- II Acquiring Peak Bone Mass and Bone Strength
- III Skeletal Fragility in Children
- IV Nutrition and Development of Peak Bone Mass
- V Conclusion
- References

Chapter 45. Osteoporosis in Adults

- Abstract
- I Introduction
- II The Skeleton
- III Adult Bone Maintenance
- IV Diagnosis of Osteoporosis
- V Osteoporosis Prevention and Treatment
- VI Conclusion
- References