## Contents

1 Exercise, Energy Balance and Cancer .................................................. 1  
   Cornelia M. Ulrich, Karen Steindorf, and Nathan A. Berger

2 Impact of Exercise, Reactive Oxygen and Reactive Nitrogen Species on Tumor Growth ...................................................... 7  
   Andreas N. Kavazis and Scott K. Powers

3 Exercise Associated Regulation of Tumor Promoters, Hormones and Cytokines in Cancer Control ....................................... 21  
   Nora L. Nock and Nathan A. Berger

4 Exercise Impact on Immune Regulation of Cancer ......................... 37  
   Huicui Meng and Connie J. Rogers

5 Biological Pathways Impacting Cancer Survival: Exercise as a Countermeasure for the Development and Progression of Cachexia .................................................. 59  
   James A. Carson and Melissa J. Puppa

6 Physical Activity and Primary Cancer Prevention ............................ 83  
   Karen Steindorf, Michael F. Leitzmann, and Christine M. Friedenreich

7 Benefits and Rationale for Exercise During Cancer Therapy .......... 107  
   Morten Quist and Lee W. Jones

8 Exercise During Stem Cell Transplantation .................................... 119  
   Joachim Wiskemann and Cornelia M. Ulrich

9 Physical Exercise in Advanced Malignant Diseases .................... 143  
   Winfried Banzer, Ezster Füzeki, Markus Bernhörster, and Elke Jäger

10 Exercise in Pediatric Cancer Patients  .......................................... 159  
    Luisa Soares-Miranda, Carmen Fiuza-Luces, and Alejandro Lucia

11 Exercise in Elderly Cancer Survivors .......................................... 181  
    Anna L. Schwartz and Kerri Winters-Stone
12 Benefits of Aerobic and Resistance Exercise for Cancer Survivors
Melinda L. Irwin

13 Exercise Behavior, Motivation, and Maintenance Among Cancer Survivors
Jeff Vallance, Lauren Spark, and Elizabeth Eakin

Index