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## Chapter 1

# Introduction

Overweight and obesity are significant factors in the incidence of acute and chronic health conditions, including cancer. The American Society of Clinical Oncology (ASCO) recognizes the significance of the role that overweight and obesity plays in the risk for the development of certain cancers as well as the increased risk of recurrence and poor outcomes for cancer survivors (Ligibel et al., 2014). Systemic chemotherapy for overweight and obese patients may be given at subtherapeutic doses because of concerns about toxicity with doses that are based on the actual weight of patients (Lyman & Sparreboom, 2013); this can result in suboptimal response to treatment.

The Centers for Disease Control and Prevention suggest a tipping point has been reached where advances in the treatment of diseases no longer compensate for the contribution of overweight and obesity to the development of chronic diseases (Ludwig, 2016). Obesity-related cancers are now recognized as an accepted definition for certain cancers, such as breast, prostate, endometrial, and kidney. Evidence is likely to emerge that other rare cancers are similarly related to overweight and obesity (Azvolinsky, 2014).

The mechanisms for this increased risk of obesity-related cancers are multifactorial; however, overweight and obesity are preventable. They do not require expensive interventions to control, but weight management is challenging.

ASCO recommends that all patients with cancer be weighed and their body mass index (BMI) calculated (see Chapter 11). Based on their weight and BMI, patients should be advised whether they need to lose weight or prevent weight gain. They should be encouraged to eat a healthy diet and to incorporate physical activity into their daily lives to both improve quality of life and decrease the incidence of comorbidity. Patients should be referred to specialist services such as nutritionists, exercise physiologists, and rehabilitation specialists as needed to help them in this endeavor (Ligibel et al., 2014).

Despite their knowledge of the risks of being overweight or obese and their desire to improve their overall health, cancer survivors do not necessarily make the appropriate modifications to their diet and activity level. In fact, one study showed that cancer survivors do not adhere to the guidelines for a healthy diet recommended by the U.S. Department of Agriculture's 2010 *Dietary Guidelines for Americans* (Zhang, Liu, John,

Must, & Demark-Wahnefried, 2015). Patients want more information about diet, physical activity, and weight management, but their oncology care providers may not be providing them with the information they need (James-Martin, Koczwara, Smith, & Miller, 2014). Talking to patients about their weight and the need to lose weight is a topic that often is fraught with tension for both healthcare providers and patients. To date, very little data exist on the role that oncology care providers play in counseling patients about how excess weight affects morbidity and mortality. However, it is recognized that oncology care providers have an important role in educating patients.

## Overview of Chapters

The first five chapters in this book describe what we know about cancer and obesity, nutritional recommendations, and physical activity in the context of cancer survivorship. This is a growing field of research, with new discoveries and evidence being published on a regular basis. The next five chapters contain information about the psychosocial aspects of weight management, including practical guidance on how to motivate, encourage, and assist survivors to lose weight and increase their physical activity. This section also contains information on the barriers to lifestyle change and how to help patients who face challenges in their attempts to do so. The final chapter contains useful resources for healthcare providers, including guidelines and websites that can support practice in this area.

### **Chapter 2. Overweight and Obesity and the Risk of Cancer and Poor Outcomes**

This chapter describes how overweight and obesity are linked to the risk of developing cancer and the increased risk of recurrence or poor outcomes, including death.

### **Chapter 3. Weight Management**

This chapter describes the most common and popular approaches to weight loss and presents evidence on weight loss in noncancer populations. Very little data on this topic exist for cancer populations. This is partly because undesirable weight loss has been the most common issue for many patients with cancer, and most studies focus on prevention and management of cachexia. However, given the increasing evidence on the role of overweight and obesity as risk factors for cancer and cancer recurrence, attention should be paid to weight loss in overweight or obese cancer survivors and how best to encourage weight loss where appropriate.

### **Chapter 4. Optimal Nutrition**

This chapter presents what we know about optimal nutrition for cancer survivors. Oncology care providers need to know the evidence about these claims and

advice to guide and educate their patients to eat as well as possible to both lose weight and maintain a healthy weight to promote healing from treatment and overall good health.

## **Chapter 5. Physical Activity and Weight Management**

This chapter describes research on physical activity and body weight and programs and interventions that focus on exercise and weight loss. The chapter addresses how individuals can increase their motivation to incorporate physical activity and exercise in their daily life and includes suggestions for oncology care providers to assist patients and survivors in integrating physical activity and exercise into their lives.

## **Chapter 6. Barriers and Facilitators to Lifestyle Change**

This chapter describes the evidence about lifestyle changes for cancer survivors, with an emphasis on breast, prostate, and colorectal cancers. Much of the research describes the barriers and facilitators to lifestyle change as identified by cancer survivors and their oncology team.

## **Chapter 7. Communicating About Weight Issues With Patients**

This chapter describes the challenges that we as oncology care providers have in discussing weight-related issues with our patients and among ourselves. It provides the reader with a toolkit of resources to initiate the conversation and to offer assistance to patients. It also addresses the sensitive issue of personal weight in health-care providers and how it affects our willingness or refusal to discuss this topic with our patients.

## **Chapter 8. Motivational Interviewing**

This chapter explains the basic tenets of motivational interviewing and suggests how oncology care providers can use this technique to involve patients in the decisions needed to both accept and change attitudes and behaviors contributing to overweight and obesity.

## **Chapter 9. Mindfulness and Overweight and Obesity**

This chapter provides a brief overview of mindfulness and how it is used in reducing physical and psychological effects of illness, including cancer. The evidence on mindfulness-based interventions targeting weight control is described, and resources for providers and patients are listed at the end of the chapter. Related topics, including intuitive and mindful eating, are briefly discussed.

## Chapter 10. Challenges Faced by Patients Who Want to Lose Weight

This chapter highlights what oncology care providers need to know and understand about why it is so difficult for patients to do what seems best for themselves in this area—in part to be able to help patients overcome these barriers and also in an effort to support them through this challenging time. This chapter also addresses how care providers can handle patients who do not want to make the beneficial lifestyle changes necessary to lose weight.

## Chapter 11. Resources

This chapter highlights a number of resources for oncology care providers and other healthcare providers that offer guidance and assistance for those who want to learn more about managing overweight and obesity in their patients. Guidelines specific to cancer care in the context of overweight and obesity are beginning to be developed and are presented in this chapter.

### What This Book Provides

This book outlines the evidence for encouraging patients who are overweight or obese to make the necessary lifestyle changes to maximize their health and prevent recurrence of primary disease and the development of a secondary cancers, mitigate side effects, and potentiate optimal recovery from treatment and return to health after treatment. Each chapter presents what is known about the various topics as well as case vignettes with questions to prompt discussion and encourage reflection about practice. Examples also are given on ways to discuss weight management and physical activity with patients. The intent is to educate oncology care providers about the extant evidence about cancer and overweight and obesity, recognizing that this is an evolving field. It also is intended to provide oncology care providers with the tools and resources to talk to their patients about overweight and obesity to encourage and promote behavior change and reduce the risks conferred by these phenomena.

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