



Roadmaps for Clinical Practice

Case Studies in Disease Prevention and Health Promotion

Assessment and Management of Adult Obesity:

A Primer for Physicians

Introduction and Clinical Considerations

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Medical care is determined on the basis of all the facts and circumstances involved in an individual case and is subject to change as scientific knowledge and technology advance and patterns of practice evolve. This publication reflects the view of the experts and reports in the scientific literature as of 2003.

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Foreword

Obesity is the fastest-growing health problem in the United States, and one of the most serious chronic conditions of our time. During the past two decades, obesity prevalence has increased dramatically. Approximately 64% of the adult population is either overweight or obese.

These statistics herald potentially devastating health, economic, and social consequences for our Nation. People who are overweight or obese have a greater probability of developing high blood pressure, high blood cholesterol or other lipid disorders, Type 2 diabetes, heart disease, stroke, and certain cancers. In fact, overweight and obesity may soon cause as much preventable disease and death as cigarette smoking. Approximately 300,000 U.S. deaths a year are associated with this condition. The total direct and indirect costs attributed to obesity amounted to \$117 billion in the year 2000. Clearly, the impact of this disorder cascades dramatically.

The U.S. Department of Health and Human Services (HHS) is committed to addressing this issue through several channels. Secretary Tommy G. Thompson has launched an initiative, *Steps to a HealthierUS*, to help Americans live longer, healthier lives. It builds on President George Bush's *HealthierUS* initiative, which marshals resources within HHS, other federal agencies, and the private sector to take appropriate action to improve our nation's health. In FY03, the initiative awarded nearly \$15 million in grants to support community-based chronic disease prevention and control programs to prevent obesity, asthma, and diabetes and associated risk factors.

The Office of Disease Prevention and Health Promotion (ODPHP) is playing a major role in this battle to improve our nation's health. Located within the Office of Public Health and Science at HHS, ODPHP collaborates with other Federal agencies and departments, as well as the public and private sectors, in developing and monitoring national health goals and objectives that will ensure healthier lives for all Americans.

Healthy People 2010 is one of ODPHP's major efforts. It is a comprehensive set of disease prevention and health promotion objectives for the Nation to achieve over the first decade of the 21st century. *Healthy People 2010* objectives cover a wide range of public health priorities, including nutrition and overweight. *Healthy People 2010* also provides the underlying frame of reference for *HealthierUS*, *Steps to a HealthierUS* and other HHS planning efforts. Among other efforts, ODPHP promotes the nation's public health through Memoranda of Understanding (MOUs) that commit HHS and

national partner organizations to collaborate on achieving *Healthy People 2010* goals. I am proud to say that in December 2000, HHS and the American Medical Association signed such an agreement.

Why do we partner with the American Medical Association? Because physicians are key to our success. In particular, they are a primary source of support as we all work together to combat overweight and obesity. Recommendations by health care providers can be influential in patient dietary choices and physical activity patterns. In collaboration with schools and worksites, health care providers and institutions can reinforce the adoption and maintenance of healthy lifestyle behaviors. They can also improve awareness of community resources and referral services that can assist with the management of overweight and obese patients. Finally, health care providers also can serve as effective public policy advocates and further catalyze intervention efforts in the family and community and in the media.

Roadmaps for Clinical Practice is an American Medical Association publication and is an outgrowth of our alliance with them. It is focused on interventions that address the issues of obesity and overweight. This publication is part of a series of case-based monographs designed to raise physicians' awareness of how medicine and public health work together to improve the health of the public, and to emphasize the important role that physicians can play in preventing and reducing the incidence and impact of injury and chronic disease in the United States. We at HHS sincerely hope that you will find this document useful for your practice and that it will stimulate a renewed commitment to reducing overweight and obesity in the United States. We look forward to collaborating with the AMA on future Roadmap publications. Thank you for your efforts to improve America's health.



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Preface

In the United States, increasing trends in morbidity and mortality related to chronic diseases and injuries have led the American Medical Association (AMA) and others to address strategies for promoting health and preventing disease and disability. Over the past decade, the AMA has launched national campaigns against violence, alcohol abuse, and tobacco use. Recently, the AMA launched national programs to address low health literacy, patient safety, and disparities in health services and outcomes.

To further address the health challenges facing our nation, the AMA is developing a series of case-based publications for physicians as part of a new program titled *Roadmaps for Clinical Practice: Case Studies in Disease Prevention and Health Promotion*. The Roadmaps project fulfills an AMA and US Department of Health and Human Services (DHHS) partnership established through a Memorandum of Understanding (MOU) signed by both organizations in the year 2000. The series concentrates on the *Healthy People 2010* objectives, which were developed by the US Public Health Service to help professionals address the leading causes of morbidity and mortality in this country. The series also supports the goals of the DHHS *HealthierUS* initiative which was established in 2003 to help Americans lead longer, better, and healthier lives. This primer, produced with support from The Robert Wood Johnson Foundation, is part of the Roadmaps series.

The Roadmaps series aims to help physicians prevent or reduce injury and chronic disease through early detection and disease management in addition to promoting healthier lifestyles through their medical practices and communities. Emphasis is directed at promoting personal behaviors that have both immediate and long-term health benefits and at modifying behaviors that cause the greatest burden of suffering. According to the US Preventive Services Task Force, counseling patients about personal health practices (smoking, diet, physical activity, drinking, injury prevention, and sexual behavior) remains one of the most underused but important parts of the health visit.

This primer focuses on the rising prevalence of a serious, chronic health condition—obesity. Two weight-linked behaviors—physical inactivity and unhealthy eating—are given important consideration. It is estimated that 300,000 preventable deaths occur each year in the United States due to diet and physical inactivity, both of which contribute to obesity—only tobacco use causes more preventable deaths in this country. Growing scientific consensus on the health risks of physical inactivity and improper diet mandates that physicians become informed and prepared to assist patients in leading more active and healthy lives. Physicians have an important opportunity to encourage improvements in health behaviors and outcomes, including influencing motivation and success with weight loss treatment. **It is never too late to start and have a favorable impact on health. Patients of all ages can and will benefit.**

We encourage you to review this primer and to participate in the accompanying continuing medical education (CME) program. Please also take some time to complete and return the evaluation form that accompanies this primer. Your feedback is valuable for updating this publication and for planning future physician education programs. We invite you to use these resources and take action—in your practice and community—to promote healthier lifestyles among your patients, colleagues, and neighbors.

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Objectives

This primer is designed to educate primary care physicians about providing medical care to overweight and obese adults. It is presented in a modular format to facilitate its use as an educational and teaching tool. Patient scenarios are included for self-evaluation and to reinforce information presented. A continuing medical education (CME) component worth 4.5 credit hours is also offered. After completing this program, physician participants should be able to:

- identify overweight and obesity in their patients
- describe the medical and public health implications of adult overweight and obesity and identify opportunities for patient, family, and community intervention
- incorporate assessment and management of adult overweight and obesity into their clinical practices
- identify specific patient comorbidities and health risks that are caused and/or exacerbated by overweight and obesity that may interfere or even contraindicate treatment
- understand the appropriate application of diet, physical activity, behavior changes, pharmacotherapy, and surgery in obesity treatment
- locate information about culturally and linguistically appropriate strategies and resources to prevent and treat adult overweight and obesity
- enhance personal and office practices to optimize sensitivity to the needs and concerns of overweight and obese patients

This primer is not intended to function as a clinical guideline, standard of care, or definitive resource for the assessment and management of obesity. However, more detailed information is available in the references and resources listed in each booklet of this primer.

Management of overweight and obesity: a medical and public health challenge

The management of overweight and obesity presents a major challenge to adult patients and their physicians. For many overweight and obese adults, achieving and maintaining a healthy weight is a difficult and lifelong process. For most overweight and obese adults, achieving a “healthy” weight is an unrealistic expectation and should not be set as a goal. Improved health through improved weight or healthier weight in association with improved physical activity should be the goal.

In their attempt to lose weight, adults use a variety of methods including low-calorie foods and beverages, physical activity, behavior modification, weight loss classes, spas, medications, meal substitution, and self-imposed fasting. Many regimens are used individually or in combination, with and without medical supervision. A recent national survey showed that, at any one time, more than two-thirds of US adults are trying to lose weight or are avoiding weight gain.¹ Unfortunately, only about 20% report using the recommended strategy of eating fewer calories and engaging in at least 150 minutes of physical activity per week. Despite the efforts of many adults to lose weight, studies show that most of them regain the weight within 5 years.²

Overweight and obesity, which are common problems that physicians encounter in clinical practice, have potentially serious health conditions related to them. These conditions are easy to screen for and multiple management options are available. The goal of weight loss treatment is not only weight loss but also sustained weight management through healthy lifestyle habits to achieve the best possible health.

This booklet addresses the increasing prevalence of adult overweight and obesity and the important need for physicians to recognize body weight as an important risk factor for patient health and well being.

Scope of the Problem Obesity is a condition in which excess body fat may compromise patient health. Clinical definitions of obesity include the *degree of excess body fat* that places an individual at increased health risk, ie, increased body fat corresponds to increased health risks. A general consensus for an indirect measure of body fat, the weight-to-height index or body mass index (BMI),^{2,3} is used to determine obesity. As described in Booklet 2: *Evaluating Your Patients for Overweight or Obesity*, a standard classification of adult overweight and obesity is based on the following BMI calculations:^{2,3}

Healthy weight	BMI = 18.5 to 24.9 kg/m ²
Overweight	BMI = 25.0 to 29.9 kg/m ²
Obese	BMI ≥ 30.0 kg/m ²
Extreme obesity, also known as morbid obesity	BMI ≥ 40.0 kg/m ²

A value of 25.0 as the upper limit of the healthy weight range is based on the relationship of overweight and obesity to the risk of developing factors for chronic disease and premature death. However, solely having a BMI in the overweight or obese range does not necessarily indicate that a person is unhealthy. In fact, some individuals with a BMI less than 25 can have all the manifestations of overweight and obesity. Other risk factors, such as high blood pressure, high cholesterol, smoking, diabetes, medications, fitness level (cardiorespiratory fitness), and personal and family medical history, are important considerations when assessing overall health.²

Over the past three decades, the prevalence of obesity has increased sharply. Such increases cut across all ages, racial and ethnic groups, and both genders.^{2,6} The combined prevalence of overweight and obesity (BMI ≥ 25.0) for persons 20 years of age or older is about 67% for men and 57% for women.⁶ Although overweight and obesity are common in both sexes and all age groups, differences in prevalence exist in many segments of the population, particularly among African Americans and Mexican Americans (Figure 1.1).

Figure 1.1 Examples of Adult Disparities in Overweight and Obesity^{2,6}

- Approximately 33% of all US women are obese and 28% of all US men are obese.
- Women from lower-income families generally experience greater prevalence of obesity than those from higher-income families.
- Fifty percent of African American women and 40% of Hispanic women are obese compared with 30% of white women.
- Mexican American men have a higher prevalence of overweight and obesity (75%) than non-Hispanic white men (67%) and non-Hispanic black men (61%).
- Among men and women, the prevalence of overweight and obesity increases with advancing age until the sixth decade, after which it begins to decline.

Concurrent increases in overweight and obesity in the United States are also occurring in child and adolescent populations. It is important to note that overweight and obesity in children and adolescents are best identified and evaluated by comparing a child's BMI level to age- and gender-specific target values (Figure 1.2).

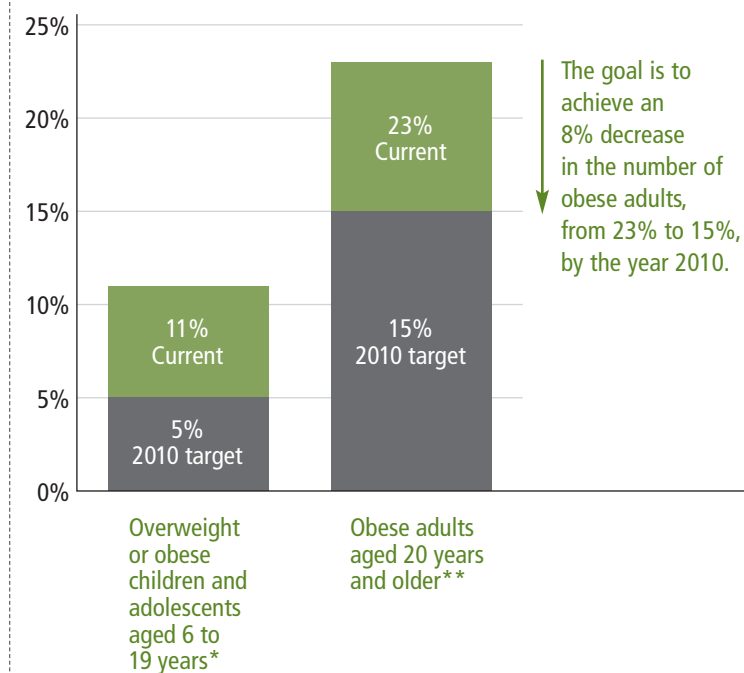
The prevention of obesity: starting early The relationship of childhood and adolescent obesity to adult obesity is strong — 20% of children who are obese at 4 years of age and 80% of adolescents who are obese will be obese as adults.⁷ This problem is compounded by the fact that the prevalence of obesity among children and adolescents has doubled over the past 2 decades.⁸ Currently, 15.3% of 6 to 11 year-old children and 15.5% of adolescents 12 to 19 years of age are at or above the 95th percentile for weight.⁸ The rates of obesity among African American and Hispanic children and adolescents are even greater.⁸

Recent studies clearly indicate that obesity runs in families. If one parent is obese, the odds ratio is 3:1 that a child will be obese as an adult.⁹ The odds ratio increases to 10:1 if both parents are obese. For children younger than 3 years of age, parental obesity is a stronger predictor of obesity in adulthood than the child's weight status.⁹ The relationship between parental and childhood obesity is most likely due to an interaction of multiple genetic and environmental influences.⁹

Because of the strong familial association of obesity, physicians are urged to:¹⁰

1. Use BMI measures to identify and track children and adolescents at risk for obesity — including those children and adolescents who have obese parents.
2. Counsel parents to promote healthy eating patterns and physical activity for their children.
3. Counsel parents to limit their children's television and video time to a maximum of 2 hours per day.
4. Recognize and monitor changes among their pediatric patients in obesity-associated risk factors for adult chronic diseases such as hypertension, dyslipidemia, impaired glucose tolerance, and symptoms of obstructive sleep apnea syndrome.

Figure 1.2 Overweight and Obesity, United States, 1988–1994⁴



* In those age 6 to 19 years, overweight or obesity is defined as being at or above the sex- and age-specific 95th percentile of BMI based on the Centers for Disease Control and Prevention (CDC) *Growth Charts: United States*.

** In adults, obesity is defined as a BMI of 30 kg/m² or more; overweight is a BMI of 25 kg/m² or more.

BMI is calculated as weight, in kilograms (kg), divided by the square of height, in meters (m²).

$$\text{BMI} = \frac{\text{weight (kg)}}{\text{height squared (m}^2\text{)}}$$

To estimate BMI using pounds (lb) and inches (in), divide weight, in pounds, by the square of height, in inches. Then multiply the resulting number by 703.

$$\text{BMI} = \frac{\text{weight (lbs)} \times 703}{\text{height squared (in}^2\text{)}}$$

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey, 1988–1994.

Causes of obesity The causes of overweight and obesity for the US population are multifactorial. Individual variation in body fat relates to a complex interplay of genetic, nutritional, physiological, psychological, environmental, and social factors.^{2,3} Increasing evidence suggests that obesity is not a simple problem of willpower or self control, but rather a complex disorder involving appetite regulation and energy metabolism that is associated with a variety of comorbid conditions. For most people, overweight or obesity results when energy intake exceeds energy expenditure for an extended period of time.

Some individuals may become overweight or obese partly because they have a genetic or biological predisposition to readily gain weight when they are exposed to unhealthy diets and lifestyles. Most human obesity is polygenic, and more than 300 genes and gene markers may in some way be associated with obesity.¹¹ Although genetic influences are important for the majority of adults, the increasing prevalence of overweight and obesity reflects changes in society and behaviors over the last 20 to 30 years. American lifestyle patterns are influenced greatly by an overabundance of energy-dense food choices and decreased opportunities and motivation for physical activity.^{2,3,5}

For more detailed information regarding the role of diet and physical activity in the management of overweight and obesity, consult Booklet 4: *Dietary Management* and Booklet 5: *Physical Activity Management*.

Consequences of obesity Adult overweight and obesity have demonstrated associations with morbidity, increases in early mortality, and decreases in life expectancy.

The degree of overweight and the distribution of body fat affect the risk of developing obesity-related diseases (Figure 1.3). Although difficult to calculate and subject to interpretation, obesity is linked to:¹²

- 57% of Type 2 diabetes
- 30% of gallbladder disease
- 17% of hypertension and coronary heart disease
- 14% of osteoarthritis
- 11% each of breast, uterine, and colon cancer

Each year, an estimated 300,000 adult Americans die of causes related to obesity.¹³ Adult overweight and obesity have demonstrated associations with increases in early mortality and decreases in life expectancy. Overweight male non-smokers have been found to lose 3.1 years of life and women 3.3 years. Obese men have been found to lose 5.8 years of life and obese women 7.1 years of life.¹⁴ The risk of death increases with an increasing BMI; however, this increase is modest until a BMI of 30 is reached.^{2,3} Obese adults have a 50% to 100% increased risk of premature death compared to adults with a BMI of 18.5 to 25. Even a moderate weight excess (10 to 20 pounds for a person of average height) increases the risk of death, particularly among adults age 30 to 64 years. In addition to BMI, the presence of excess abdominal body fat (as measured by waist circumference) is considered an independent predictor of health risks associated with obesity.^{2,3}

Overweight and obesity also have potentially serious psychosocial implications.^{2,3,5} Despite the rapid increase in the prevalence of overweight and obesity in this country, societal acceptance of the condition remains limited. A cultural obsession with thinness and fitness, the aversion to body fatness by both adults and children, and the attribution of blame to the obese can lead to psychological and social problems ranging from low self-esteem and poor self-image to depression and social isolation in those who do not conform to the stereotypically attractive thin image.

Figure 1.3 Health Risks Associated with Obesity^{2,3,5}

- | | |
|--|---|
| • Premature death | • Gout |
| • Insulin resistance, Type 2 diabetes | • Nonalcoholic fatty liver disease |
| • Hyperlipidemia | • Pregnancy complications |
| • Hypertension | • Menstrual irregularities |
| • Coronary heart disease | • Bladder control problems, stress incontinence |
| • Congestive heart failure | • Osteoarthritis |
| • Stroke | • Obstructive sleep apnea, respiratory problems |
| • Some types of cancer (endometrial, colon, kidney, gallbladder, postmenopausal breast cancer) | • Infertility |
| • Gastroesophageal reflux disease (GERD) | • Psychological disorders (eg, depression, eating disorders, distorted body image, low self-esteem) |
| • Gallstones, gallbladder disease | |

In addition to health consequences, overweight and obesity and their associated complications have substantial economic consequences for the health care system. In the United States, the direct costs of overweight and obesity contribute as much as \$93 billion to the nation's yearly health bill. Annual medical spending associated with being overweight or obese comprises 9.1% of what the United States spends on medical care.¹⁵ Most of these costs are due to Type 2 diabetes, coronary heart disease, and hypertension. Obesity has been associated with a 36% increase in inpatient and outpatient spending and a 77% increase in medication use, compared with being in a healthy weight range (BMI of 18.5 to 25).¹⁶

A national call for action

In 1998, the National Heart, Lung, and Blood Institute (NHLBI), in cooperation with the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDKD), released the *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: Evidence Report* to provide guidance to primary care physicians and an evidence base for effective treatment.² The Guidelines were endorsed by the coordinating committees of the National Cholesterol Education Project, the National High Blood Pressure Education Program, the North American Association for the Study of Obesity, and the NIDDKD National Task Force on the Prevention and Treatment of Obesity. These groups include representatives of national medical and public health associations, numerous medical specialty societies, government agencies, and consumer health organizations.

The NHLBI Guidelines serve as the foundation for this primer. The Guidelines establish principles of safe and effective weight loss and provide an authoritative framework for implementing proactive obesity care in the primary care setting. They offer guidance in a systematic fashion to facilitate patient communication, to counter myths and misinformation, and to help physicians make recommendations tailored to the needs of individual patients. The most effective interventions combine nutrition education, diet, and physical activity counseling with behavioral strategies to help patients change their eating patterns and become more physically active.² A basic premise in the treatment of obesity is that intentional weight loss is

an effective and safe intervention and therefore should be recommended for most obese patients; weight reduction is associated with a reversal in the adverse physiologic effects of excess weight. Even modest weight loss (5% -10%) can be beneficial.

In 2000, the Department of Health and Human Services (DHHS) released *Healthy People 2010*, a statement of the nation's health objectives for this decade. The overarching purpose of *Healthy People 2010* is to promote health and prevent illness, disability, and premature death.⁴ Overweight and obesity are identified among the 10 Leading Health Indicators that most influence morbidity and mortality in this country (Figure 1.4).

Figure 1.4 National Health Objectives for Overweight and Obesity⁴

To reduce overweight and obesity in adults, over the next 10 years national efforts are being targeted to:

- increase to at least 60% the proportion of adults who are at a healthy weight (BMI of 18.5 to 24.9);
- reduce to 15% the proportion of adults who are obese (BMI \geq 30);
- increase to at least 85% the proportion of work sites that offer nutrition education and/or weight management programs for employees; and
- increase to at least 75% the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, hyperlipidemia, and diabetes mellitus that include counseling or education related to diet and nutrition.

The Healthy People 2010 objectives also address obesity indirectly through specific objectives to increase physical activity, encourage consumption of more healthful diets, increase the use of nutrition labels, reduce sources of unnecessary calories in food products, expand nutrition and physical education in schools, and improve access to community recreational facilities.

In 2001, the US Surgeon General promoted the NHLBI Guidelines and *Healthy People 2010* objectives as part of a national call for action to reduce and prevent overweight and obesity in the United States.⁵ This primer responds to that call by addressing the important role of physicians in local and national intervention and prevention efforts. It also advances the goals of the DHHS *HealthierUS* initiative, established in 2003 to focus on the importance of prevention and health promotion to help Americans lead healthier lives.

The important role of physicians

Despite the prevalence and health complications of obesity, some physicians may be reluctant to address this condition with their obese patients.^{2,17-19} In fact, data from a recent large national study pointed to the fact that only 42% of adult obese patients reported receiving any prior advice from a physician to lose weight.²⁰ Some physicians feel that giving advice to patients to lose weight will go unheeded, while others are concerned with the amount of time that appropriate counseling requires. Many physicians believe that data are insufficient to support the effectiveness of physician weight loss counseling and are skeptical about the success of any non-surgical intervention for obesity. Some physicians point to a lack of tools and training to implement these interventions. Still others avoid talking about weight because they fear offending their patients. Many physicians are frustrated by the lack of reimbursement for obesity-related treatment.

The health of patients in a medical practice can be addressed at the level of the individual patient and at the level of patient groups. A population health perspective recognizes the interdependency of health and societal factors such as the environment; socioeconomic status; physical, emotional, and social functioning; and lifestyle on patients, populations of patients, and communities.²¹ In fact, implementing a population-based prevention strategy into routine medical care can be considered a form of continuous quality improvement, with staff involved at each step and committed to the process of change. With respect to chronic diseases including obesity, disease

In spite of a clinical environment that is confused about and intimidated by the rising prevalence of obesity and potentially significant toll of obesity-related medical conditions, it is critical that treatment of obesity as the underlying disorder of a patient's other health complaints be the preferred route. Treatment and control of underlying obesity can have a significant impact on several chronic diseases and premature death. In the long run, the individual physician may spend more time on patient management of obesity-related conditions if weight is not addressed from the start. As discussed in Booklet 2: *Evaluating Your Patients for Overweight or Obesity*, physicians and their staff should be aware of available coding and payment mechanisms, as well as recent tax code changes that allow patients to deduct certain weight loss expenses.

management provides a systematic approach to the management of high-volume diseases that are usually chronic. Disease management includes multidisciplinary approaches, use of evidence-based clinical guidelines, specific implementation procedures, patient support groups, and outcomes measurement that provides data-driven feedback.²²

Figure 1.5 Physician's Role in Prevention and Management of Overweight and Obesity^{17,18}

Alert patients to the risks of inappropriate weight gain and the possible benefits of weight loss. At a minimum, advise patients to prevent further weight gain and advocate lifestyles that will promote a healthier weight.

Take baseline measurements such as weight, height, BMI, waist circumference, blood pressure, serum lipids, and serum glucose to help assess obesity-related disease risks and monitor patients' progress.

Assess current physical activity, eating habits, and readiness to make long-term lifestyle changes.

Recommend treatment approaches for specific patients, targeting realistic goals and providing ongoing support and encouragement. Guide patients toward a weight management program that will become part of their everyday life.

Encourage all patients to strive to maintain a lower body weight over the long term.

Recognize behavioral and environmental factors as major determinants of overweight and obesity.

Identify other health professionals in the community who are critical to the treatment of adults who are obese, including registered dietitians, bariatric surgeons, and mental health professionals.

Develop a clinical tracking system for obese patients who are undergoing disease management.

Ensure health education materials are available.

Become aware of and share community resources and referral services that can assist with the management of overweight and obese patients.

Cultural competence and health literacy are two issues that can contribute to disparities in health care, health status, and health outcomes. Cultural competence involves two levels of knowledge and understanding. Physicians should have an understanding of the sociocultural background of their patients, the family, and the living environment. They should also understand how personal values, beliefs, and assumptions are shaped by the contexts in which their patients work and live and how these sociocultural factors might influence the provision of health care.²² This issue is addressed further in Booklet 8: *Communication and Counseling Strategies*. Physicians should also be aware that patients with low health literacy may have difficulty understanding their instructions during the patient visit and may find it challenging to read and interpret educational brochures, prescription labels, consent forms, and appointment cards.^{23,24} Several mechanisms for addressing the relationships between low literacy and poor health are discussed in Booklet 9: *Setting Up the Office Environment*.

Physicians can have a strong impact on patients' decisions to attain a healthy weight and can motivate patients to adopt healthier lifestyles (Figure 1.5). Physicians should carefully assess any weight change (in either direction) during routine medical examinations, determine if it is appropriate, and discuss the health consequences of further changes in weight. If treatment for overweight or obesity is indicated, physicians can facilitate their patients' weight maintenance or reduction efforts or refer them to a physician or other health professional with special interest and expertise in the clinical management of obesity.^{2-5, 17, 18}

Physicians can consider body measurements such as BMI and waist circumference as "vital signs" to be assessed at each visit. Effective measures for achieving a desired weight include promoting healthy diets and regular physical activity, possibly changing medications, and encouraging behavioral change, with emphasis on long-term weight management rather than short-term extreme weight reduction. To maintain a preferred healthy weight, good dietary habits must be coupled with increasing physical activity, both of which must become permanent lifestyle changes. For some high-risk

patients, pharmacotherapy or surgery is indicated in addition to lifestyle change. Subsequent booklets address these issues by offering recommendations and resources.

The ability to attain a healthy weight level is compromised by our culture, which supports sedentary lifestyles and easy access to an abundance of calorie-dense, high-fat foods. Many people do not integrate physical activity into their busy lives. As patient and community health advocates, physicians can influence public policies to address local food choices and recreational opportunities. Physician participation is critical to developing a comprehensive public health approach to promote healthy eating and physical activity for the prevention of overweight and obesity in our population.

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Suggested additional reading

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Strategy for treatment of overweight and obesity

Evaluate your patients for current and potential health risks related to weight (Booklet 2)

- Measure body mass index (BMI)
- Measure waist circumference
- Assess for presence/extent of suspected comorbid diseases

Talk to your patients about weight loss (Booklet 3)

- Explain the importance of weight loss
- Assess your patients' readiness to make behavior changes
- Work with your patients to establish realistic treatment goals

Help your patients manage weight through dietary management (Booklet 4)

- Collaborate on strategies for reducing calories and balancing the diet
- Recommend weight loss programs and resources as needed
- Follow up with your patients to monitor progress and provide support

Help your patients manage weight through physical activity (Booklet 5)

- Collaborate on strategies for increasing physical activity in the daily lifestyle
- Recommend physical activity programs and resources as needed
- Follow up with your patients to monitor progress and provide support

If indicated, help your patients manage weight through pharmacotherapy (Booklet 6)

- Determine whether your patients are candidates for pharmacotherapy at this time
- If pharmacotherapy is an option, help your patients make and carry out treatment decisions
- Monitor your patients for weight loss and medication side effects

If indicated, help your patients manage weight through surgery (Booklet 7)

- Determine whether your patients are candidates for bariatric surgery at this time
- If surgery is an option, help your patients and their bariatric team make and carry out treatment decisions
- Manage your patients post-operatively

Optimize your communication and counseling style (Booklet 8)

- Establish an effective patient–physician partnership
- Help your patients obtain skills for self-management
- Be sensitive to anti-fat bias and approach the topic of weight sensitively

Optimize your office environment (Booklet 9)

- Be more sensitive to your patients' needs by adapting office practices and the waiting room configuration
- Set up your office with the equipment needed to assess and manage your patients
- Facilitate patient care through a team approach

Adapted from Serdula MK, Khan LK, Dietz WH. Weight loss counseling revisited. *JAMA*. 289;1747-1750:2003.