

# HEALTHY EATING

A Guide to Nutrition

## Nutrition and Weight Management

SECOND EDITION



Lori A. Smolin, Ph.D., and Mary B. Grosvenor, M.S., R.D.



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常州大学图书馆  
藏书章

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## **HEALTHY EATING: A GUIDE TO NUTRITION**

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Basic Nutrition, Second Edition

Nutrition and Disease Prevention

Nutrition and Eating Disorders, Second Edition

Nutrition and Food Safety

Nutrition and Weight Management, Second Edition

Nutrition for Sports and Exercise, Second Edition



# CONTENTS

<b>Introduction</b>	<b>7</b>
by Lori A. Smolin, Ph.D., and Mary B. Grosvenor, M.S., R.D.	
<b>1 The Obesity Epidemic</b>	<b>9</b>
<b>2 What Is a Healthy Body Weight?</b>	<b>24</b>
<b>3 Health Risks of Too Much or Too Little Body Fat</b>	<b>38</b>
<b>4 Food, Nutrition, and Body Weight</b>	<b>51</b>
<b>5 How Many Calories Do You Need?</b>	<b>71</b>
<b>6 The Biology of Body Weight</b>	<b>90</b>
<b>7 Achieving and Maintaining a Healthy Weight</b>	<b>100</b>
<b>8 Diets and Other Weight Fixes</b>	<b>113</b>
<b>9 Weight Management in Children and Adolescents</b>	<b>128</b>
<b>Appendices</b>	
<i>A. Dietary Reference Intakes</i>	<i>143</i>
<i>B. Healthy Body Weight</i>	<i>150</i>
<i>C. Blood Values of Nutritional Relevance</i>	<i>154</i>
<i>D. USDA's MyPlate Tips for Healthy Eating</i>	<i>155</i>
<b>Glossary</b>	<b>156</b>
<b>Bibliography</b>	<b>165</b>
<b>Further Resources</b>	<b>173</b>
<b>Picture Credits</b>	<b>175</b>
<b>Index</b>	<b>176</b>
<b>About the Authors</b>	<b>184</b>



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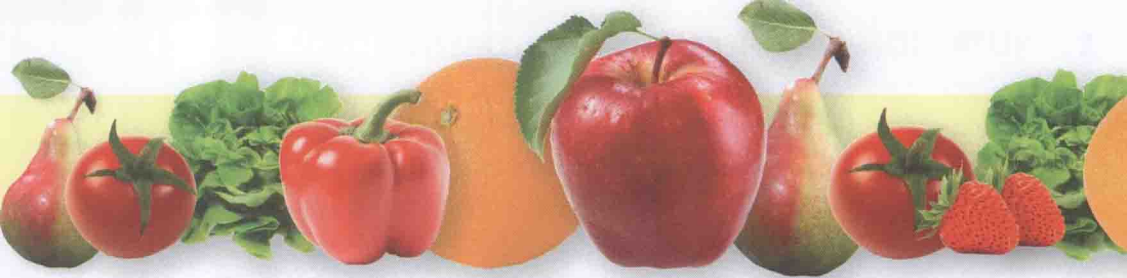
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## INTRODUCTION

**A** hundred years ago, people received nutritional guidance from mothers and grandmothers: Eat your carrots because they're good for your eyes; don't eat too many potatoes because they'll make you fat; be sure to get plenty of roughage so you can more easily move your bowels. Today, everyone seems to offer more advice: Take a vitamin supplement to optimize your health; don't eat fish with cabbage because you won't be able to digest them together; you can't stay healthy on a vegetarian diet. Nutrition is one of those topics about which all people seem to think they know something, or at least have an opinion. Whether it is the clerk in your local health food store recommending that you buy supplements or the woman behind you in line at the grocery store raving about the latest low-carbohydrate diet, everyone is ready to offer you nutritional advice. How do you know what to believe or, more importantly, what to do?

The purpose of these books is to help you answer these questions. Even if you don't love learning about science, at the very least you probably enjoy certain foods and want to stay healthy—or

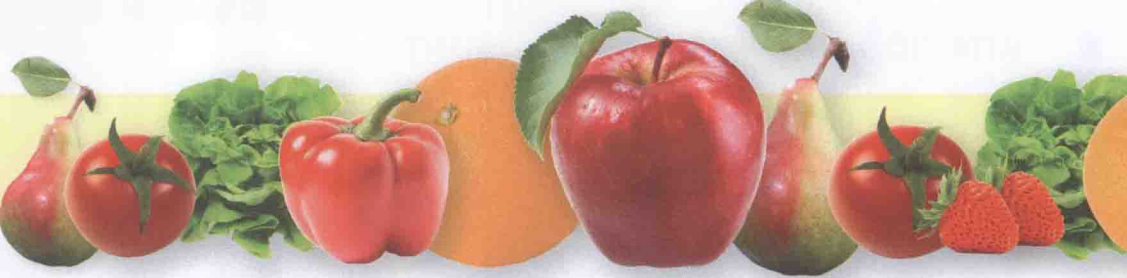
become healthier. In response to this, these books are designed to make the science you *need* to understand as palatable as the foods you love. Once you understand the basics, you can apply this simple health knowledge to your everyday decisions about nutrition and health. The **Healthy Eating** set includes one book with all of the basic nutrition information you need to choose a healthy diet, as well as five others that cover topics of special concern to many: weight management, exercise, disease prevention, food safety, and eating disorders.

Our goal is not to tell you to stop eating potato chips and candy bars, give up fast food, or always eat your vegetables. Instead, it is to provide you with the information you need to make informed choices about your diet. We hope you will recognize that potato chips and candy are not poison, but they should only be eaten as occasional treats. We hope you will decide for yourself that fast food is something you can indulge in every now and then, but is not a good choice every day. We encourage you to recognize that although you should eat your vegetables, not everyone always does, so you should do your best to try new vegetables and fruits and eat them as often as possible.

These books take the science of nutrition out of the classroom and allow you to apply this information to the choices you make about foods, exercise, dietary supplements, and other lifestyle decisions that are important to your health. This knowledge should help you choose a healthy diet while allowing you to enjoy the diversity of flavors, textures, and tastes that food provides, and also encouraging you to explore the meanings food holds in our society. When you eat a healthy diet, you will feel good in the short term and enjoy health benefits in the long term. We can't personally evaluate each meal you consume, but we believe these books will give you the tools to make your own nutritious choices.

Lori A. Smolin, Ph.D., and  
Mary B. Grosvenor, M.S., R.D.





# 1

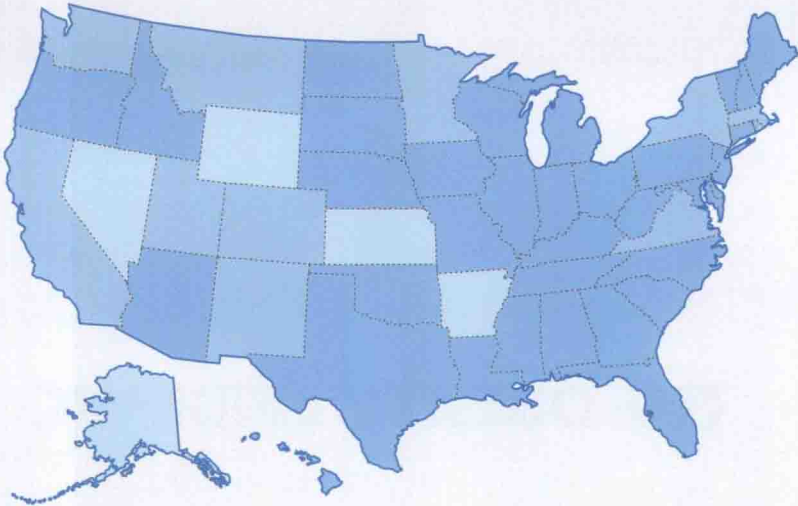
## THE OBESITY EPIDEMIC

**D**o you weigh more than you would like? You are not alone. In the United States today, 66% of adults are either **overweight** or **obese**. This percentage has increased dramatically over the past 40 to 50 years. According to data from the Centers for Disease Control and Prevention (CDC), the prevalence of obesity has increased dramatically in the last half-century (Figure 1.1). In 1960, 13.4% of American adults were obese; by 1990, about 23% were obese; and today, 32% are obese. Obesity affects both men and women and spans every age group and culture in the nation. Sixteen percent of U.S. children and adolescents ages 2 through 19 are obese. The rise in obesity has been referred to as an “obesity epidemic.”

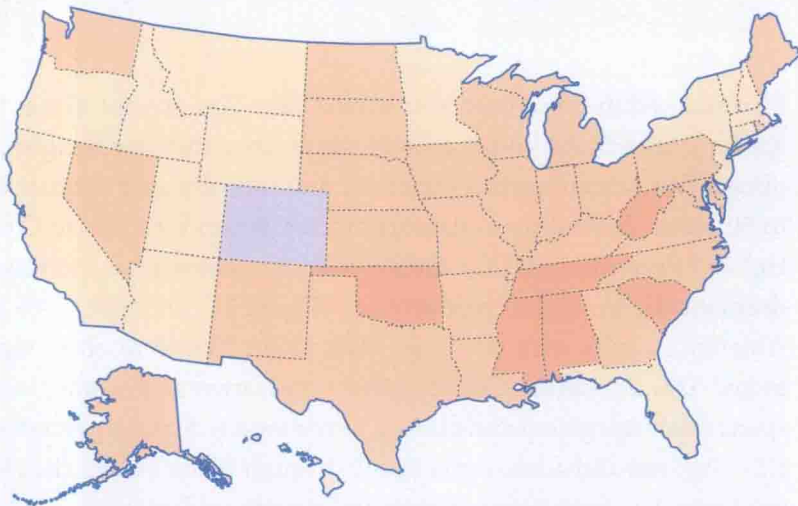
Many of us think about extra pounds in terms of how we will look in a bathing suit, but being overweight is more than a matter of appearance. Too much body fat increases health risks and shortens life expectancy. It increases the risk of developing conditions such as high blood pressure, high blood cholesterol, heart disease, diabetes, gallbladder disease, arthritis, breast cancer, uterine cancer, prostate

Obesity Trends\* Among Adults in 1990 vs. 2008

1990



2008



\*BMI ≥30, or about 30 lbs overweight for a 5'4" person  
Source: CDC Behavioral Risk Factor Surveillance System  
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cancer, and colon cancer. The more overweight people are, and the longer they have been overweight, the greater their health risks. It is estimated that obesity causes 112,000 excess deaths per year.

In addition to affecting health, obesity increases health care costs. The current estimate is that excess body weight costs Americans about \$117 billion per year. In addition to this, it also limits the amount and type of work people can do, increases absenteeism, and decreases the length of time people can remain in their jobs.

## WHAT IS THE CAUSE OF THE OBESITY EPIDEMIC?

The simple reason why people are getting fatter is that they are eating more and exercising less. The **calories** we consume in food are used by our bodies to keep us alive and moving. When we eat the same number of calories we use, we are in **energy balance** and our weight stays the same. When we eat more calories than we need, our bodies store the extra, mostly as fat, and we gain weight. This ability to store extra calories as fat is good when food is scarce and you do not know where your next meal is coming from. But it can be bad when food is plentiful and continuously available, as it is for most of us today.

## Weight Is Determined by Genes and Lifestyle

How much people weigh is determined both by the genes that they inherit from their parents and the lifestyle choices they make about what they eat and how active they are. A **gene** is a unit of biological information that is passed from parent to child. The genes we

(opposite) **Figure 1.1** More Americans are overweight than ever before. In 1990, the highest incidence of obesity in any state was 14%. In 2008, only Colorado had an adult obesity incidence rate less than 20%.