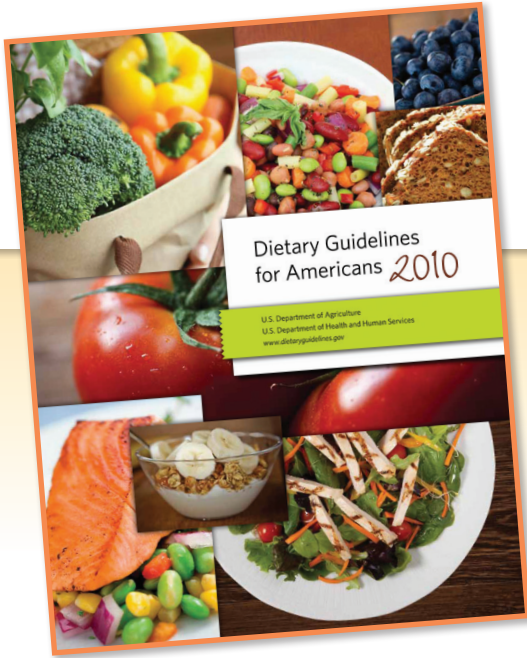


# DIETARY GUIDELINES FOR AMERICANS, 2010

## *For a Healthier Life*



THE *Dietary Guidelines for Americans, 2010* provide nutrition and physical activity advice based on the latest and strongest scientific information to improve the health of all Americans ages two and older. In light of the current epidemic of overweight and obesity—pressing health issues that now affect two-thirds of adults and one-third of children and adolescents—the message of calorie balance is woven throughout this seventh edition of the *Dietary Guidelines for Americans*.

The report identifies 29 key recommendations, grouped into the following categories:

- ◆ Balancing calories to manage weight
- ◆ Foods and food components to reduce
- ◆ Foods and nutrients to increase

As knowledge advances and the health needs of Americans change, nutrition science must evolve. The most important changes from the 2005 edition of the Dietary Guidelines include powerful emphases on reduction of total calories, sugar-sweetened beverages, saturated fat, and sodium. In addition, the report calls for a much needed increase in physical activity among all population groups.

Previous editions of the Dietary Guidelines have targeted healthy Americans, but these latest recommendations also include those at risk of developing chronic diseases. The health of children is highlighted. The new recommendations are also more culturally sensitive to reflect the growing diversity and varied health concerns of the American population. Finally, the new Dietary Guidelines recognize the prevalence of food insecurity and aim to help food insecure populations optimize the nutritional content of meals within their resource constraints.

These recommendations have been issued to guide the development of educational materials, aid policymakers, and serve as the basis for nutrition messages and consumer materials for the general public and specific audiences. Overall, Americans should use this information along with related tools, such as the new MyPlate icon, to form dietary and physical activity patterns that optimize health.

### KEY RECOMMENDATIONS

#### *Balancing Calories to Manage Weight*

- ◆ Prevent and/or reduce overweight and obesity through improved eating and physical activity behaviors.
- ◆ Control total calorie intake to manage body weight. For people who are overweight or obese, this will mean consuming fewer calories from foods and beverages.
- ◆ Increase physical activity and reduce time spent in sedentary behaviors.
- ◆ Maintain appropriate calorie balance during each stage of life—childhood, adolescence, adulthood, pregnancy and breastfeeding, and older age.

### Key Recommendations for Specific Population Groups

- ◆ Women of childbearing age: Achieve and maintain a healthy weight before becoming pregnant.
- ◆ Pregnant women: Gain weight within the 2009 Institute of Medicine gestational weight gain guidelines.
- ◆ Adults ages 65 years and older: If overweight, avoid additional weight gain. For those with cardiovascular disease risk factors, lose weight to improve quality of life and reduce risk of chronic disease and associated disabilities.

The balance between calories consumed (from foods and beverages) and calories expended (through physical activity and metabolic processes) determines body weight. Consuming too many calories without increasing physical activity will inevitably lead to excess weight gain, which exacts an enormous toll on individuals and communities. Many chronic diseases, especially cardiovascular disease, type 2 diabetes, and some forms of cancer, could be alleviated by meeting nutrient needs within calorie limits.

**Screen time**—hours spent watching TV, sitting at a computer, or playing video games—has drastically increased in recent years. Adults should spend 150 minutes per week engaged in moderate-intensity aerobic activity. Children ages six years and older and adolescents should strive to include 60 minutes of physical activity per day. ▼



## Foods and Food Components to Reduce

- ◆ Reduce daily sodium intake to less than 2,300 mg and further reduce intake to 1,500 mg among persons who are 51 and older and those of any age who are African-American or have hypertension, diabetes, or chronic kidney disease. The 1,500 mg recommendation applies to about half of the U.S. population, including children and the majority of adults.
- ◆ Consume less than 10% of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.
- ◆ Consume less than 300 mg per day of dietary cholesterol.
- ◆ Keep *trans* fatty acid consumption as low as possible by limiting foods that contain synthetic sources of *trans* fats, such as partially hydrogenated oils, and by limiting other solid fats.
- ◆ Reduce the intake of calories from solid fats and added sugars.
- ◆ Limit the consumption of foods that contain refined grains, especially refined grain foods that contain solid fats, added sugars, and sodium.
- ◆ If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and two drinks per day for men—and only by adults of legal drinking age.

Typical American diets contain too much sodium, solid fats, added sugars, and refined grains. The Dietary Guidelines advise Americans to replace problem foods with nutrient-dense foods. Emphasize vegetables, fruits, whole grains, fat-free or low-fat milk and milk products, seafood, lean meats and poultry, eggs, beans and peas, and nuts and seeds. Consumers can use the Nutrition Facts label to identify food choices that are lower in calories, fat, sugar, and sodium.

Moderate alcohol consumption is associated with reduced risk of cardiovascular disease, deaths, and cognitive decline. However, those who do not drink should

not begin drinking to obtain these health benefits, because there are risks associated with even moderate alcohol consumption, including increased risk of breast cancer, violence, drowning, and injuries from falls and motor vehicle crashes. Heavy drinking is inherently risky and should be avoided altogether.

## Foods and Nutrients to Increase

- ◆ Increase vegetable and fruit intake.
- ◆ Eat a variety of vegetables, especially dark-green and red and orange vegetables and beans and peas.
- ◆ Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains.
- ◆ Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.

- ◆ Choose a variety of protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds.
- ◆ Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.
- ◆ Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or sources of oils.
- ◆ Use oils to replace solid fats where possible.
- ◆ Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in American diets. These foods include vegetables, fruits, whole grains, and milk and milk products.

Nutrition Facts		
Serving Size	1 cup (55g/2.0 oz.)	
Servings Per Container	10	
	Cereal	Cereal with ½ Cup Vitamins A & D Skim Milk
Amount Per Serving		
<b>Calories</b>	170	210
Calories from Fat	10	10
	% Daily Value*	
<b>Total Fat</b> 1.0g*	2%	2%
Sat. Fat 0g	0%	0%
Trans Fat 0g		*
<b>Cholesterol</b> 0mg	0%	0%
<b>Sodium</b> 300mg	13%	15%
<b>Potassium</b> 340mg	10%	16%
<b>Total Carbohydrate</b> 43g	14%	16%
Dietary Fiber 7g	28%	28%
Sugars 16g		
Other Carbohydrate 20g		
<b>Protein</b> 4g		
Calcium	2%	15%
Vitamin D	10%	25%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

Calories per gram:  
Fat 9 • Carbohydrate 4 • Protein 4

\*Intake of *trans* fat should be as low as possible.

**Ingredients:** Wheat bran with other parts of wheat, raisins, sugar, corn syrup, salt, malt flavoring, glycerin, iron, niacinamide, zinc oxide, pyridoxine hydrochloride (vitamin B<sub>6</sub>), riboflavin (vitamin B<sub>2</sub>), vitamin A palmitate, thiamin hydrochloride (vitamin B<sub>1</sub>), folic acid, vitamin B<sub>12</sub>, and vitamin D.

**Serving size** is listed in household units (and grams). Pay careful attention to serving size to know how many servings you are eating: e.g., if you eat double the serving size, you must double the % Daily Values and calories.

Choose foods that provide abundant vitamins and minerals compared to the amount of calories they contain.

This shows how a single serving compares to the % **Daily Value**. The DVs for fat, saturated fat, cholesterol, protein, and fiber are based upon a 2,000 calorie diet.

The Dietary Guidelines advise Americans to **reduce** intake of fat, cholesterol, sodium, and sugars.

The Dietary Guidelines encourage Americans to **increase** dietary fiber, potassium, calcium, and vitamin D.

Ingredients are listed in decreasing order by weight. On grain products, look for whole grains to be listed as the first or second (after water) ingredient.



◀ A **nutrient-dense** food provides vitamins, minerals, and other substances that may have positive health effects, and it provides relatively few calories.

**Whole grains** consist of the entire grain seed, including the bran, germ, and endosperm. **Refined grains** have been milled and no longer contain the bran and germ. The milling process removes many minerals, B-vitamins, vitamin E, and dietary fiber naturally present in the grain. **Enriched grains** have added iron, thiamin, riboflavin, niacin, and folic acid, but they still do not match the nutritional content of whole grains. To identify whole grains, look for grain products that list whole grains as the first or second ingredient if the first ingredient is water. Also, look for food labels that boast at least 8 grams of whole grains.

## Key Recommendations for Specific Population Groups

### *Women capable of becoming pregnant:*

- ◆ Choose foods that supply heme iron (e.g., lean red meat), which is more readily absorbed by the body, additional iron sources, and enhancers of iron absorption, such as vitamin C-rich foods.
- ◆ Consume 400 micrograms per day of synthetic folic acid (from fortified foods and/or supplements) in addition to food forms of folate from a varied diet.

### *For women who are pregnant or breastfeeding:*

- ◆ Consume 8 to 12 ounces of seafood per week from a variety of seafood types.
- ◆ Due to their high methyl mercury content, limit white (albacore) tuna to 6 ounces per week and do not eat the following four types of fish: tilefish, shark, swordfish, and king mackerel.
- ◆ If pregnant, take an iron supplement, as recommended by an obstetrician or other health care provider.

### *For individuals ages 50 years and older:*

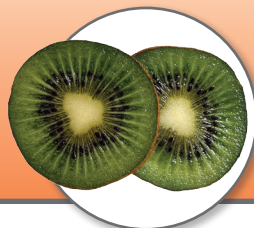
- ◆ Consume foods fortified with vitamin B-12, such as fortified cereals, or dietary supplements.

These recommendations reflect the nutrient inadequacies of greatest public health concern: potassium, dietary fiber, calcium, and vitamin D. Individuals should strive to meet these goals as part of a healthy eating pattern while staying within their calorie needs. Focusing on vegetables, fruits, whole grains, lean sources of protein, and low-fat or fat-free dairy products will not only contribute to nutrient adequacy but will also lower intake of problem nutrients, improve gastrointestinal function, aid in weight management, and decrease risk for a variety of chronic diseases.

The Dietary Guidelines steer clear of a rigid prescription and, instead, promote an array of healthful options that can

accommodate cultural, ethnic, traditional, and personal preferences, as well as food cost and availability factors. Well-studied examples of eating patterns consistent with the Dietary Guidelines include Dietary Approaches to Stop Hypertension (DASH), the USDA Food Patterns that accompany MyPlate, vegetarian eating patterns, and Mediterranean-style eating patterns. Commonalities include an abundance of vegetables and fruits, emphasis on whole grains, moderate amounts and varied sources of protein-rich foods, limited solid fats and added sugars, a high proportion of unsaturated fats compared to saturated fats, high potassium, and lower sodium.

Foods that are high in saturated fatty acids (e.g., animal fats) or *trans* fatty acids (e.g., margarine) tend to be solid at room temperature, and hence, are called **solid fats**. Diets high in saturated fatty acids increase blood levels of total and LDL cholesterol, which are associated with increased risk of cardiovascular disease. Instead of solid fats, choose foods that are high in polyunsaturated and monounsaturated fatty acids (e.g., plant oils).



A basic premise of the Dietary Guidelines is that nutrient needs should be met primarily through consuming foods. Foods provide an array of nutrients and other compounds that may have beneficial effects on health. In certain cases, fortified foods and dietary supplements may be useful sources of one or more nutrients that otherwise might be consumed in less than recommended amounts. These are especially important for people whose typical food choices lead to a diet that cannot meet one or more nutrient

recommendations, such as for vitamin D, vitamin E, or calcium. However, dietary supplements cannot and should not replace a healthy diet.

The full *Dietary Guidelines for Americans, 2010* report contains background on the development of the Dietary Guidelines, many informative tables and charts to support the recommendations, and a comprehensive list of consumer behaviors and key strategies for achieving each recommendation.

*Dietary Guidelines for Americans, 2010* is published jointly by the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services (DHHS). The Dietary Guidelines are available at <http://www.health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf>.

MyPlate is produced by the Center for Nutrition Policy and Promotion, an organization of the USDA.

Consuming 8 or more ounces of seafood per week (less for children) will provide 250 mg/day of EPA and DHA. These omega-3 fatty acids are associated with reduced cardiac deaths. Pregnant and breastfeeding women should consume 8 to 12 ounces per week of seafood, because DHA is associated with improved visual and cognitive development in infants. A few examples of seafood that supply EPA and DHA without high mercury content are salmon, anchovies, sardines, and trout. ▼

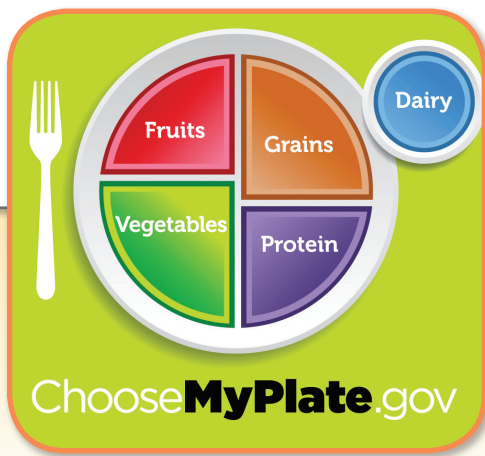


Additional resources to complement the guidelines include:

- ◆ MyPlate and its related interactive tools, available at [www.ChooseMyPlate.gov](http://www.ChooseMyPlate.gov)
- ◆ Be Food Safe, available at [www.fsis.usda.gov/Food\\_Safety\\_Education/index.asp](http://www.fsis.usda.gov/Food_Safety_Education/index.asp)
- ◆ Make Your Calories Count, nutrition labeling guidance, available at [www.fda.gov/Food/LabelingNutrition/ConsumerInformation/ucm114022.htm](http://www.fda.gov/Food/LabelingNutrition/ConsumerInformation/ucm114022.htm)
- ◆ 2008 Physical Activity Guidelines for Americans, available at [www.health.gov/paguidelines/](http://www.health.gov/paguidelines/)
- ◆ Let's Move!, the First Lady's campaign to raise healthier kids, available at [www.letsmove.gov](http://www.letsmove.gov)

## THE DIETARY GUIDELINES AND YOU

When applying the Dietary Guidelines, you need to consider your own state of health. Make specific changes and see whether they are effective for you. Note that results don't occur overnight and that sometimes results can be disappointing. Even when carefully following a diet low in saturated fat, some people continue to have high blood cholesterol. Other people can eat greater amounts of saturated fats and keep their blood cholesterol under control. Differences in genetic background are the key cause. Each of us must take into consideration our individual nutritional needs and our risks of developing certain diseases. Plan your diet with your specific needs in mind, taking into account your current health status and family history. While the Dietary Guidelines aren't able to tailor a unique nutrition program for every North American citizen, they do provide typical adults with simple nutritional advice, which can be implemented by anyone willing to take a step toward good health.



# ChooseMyPlate.gov

## Healthy Eating

Move over ancient pyramids . . . make room for **MyPlate!** To keep pace with updated nutrition advice presented by the *Dietary Guidelines for Americans 2010* and *Healthy People 2020*, MyPlate characterizes the latest and most accurate nutrition advice, replacing MyPyramid as the leading depiction of healthy eating for Americans.

Many consumers and nutrition professionals found MyPyramid to be difficult to understand because it conveyed too much information. Some argued that the pyramid shape was too abstract a concept to apply to food choices. Now, MyPlate shapes the key recommendations from the Dietary Guidelines into an easily recognizable and universally applicable visual – a place setting. Although it is not intended to stand alone as a source of dietary advice, it serves as a reminder of healthy food choices.

### *Dishing Up MyPlate*

MyPlate shows how to build a healthy plate at mealtimes. It emphasizes important areas of the American diet that are in need of improvement. National nutrition surveys show that typical American diets are consistently low in calcium, iron, potassium, magnesium, vitamin D, vitamin E, and fiber. On the other hand, Americans consume excess total calories and saturated fat. To obtain essential nutrients within calorie needs, Americans should increase the relative proportions of fruits, vegetables, whole grains, and fat-free or low-fat dairy products while simultaneously decreasing consumption of refined grains and high-fat meats.

The new MyPlate icon emphasizes five food groups:

- ◆ **Fruits** and **vegetables** cover half of the plate. These foods are dense sources of nutrients and health-promoting phytochemicals despite their low calorie contents.
- ◆ **Grains** occupy slightly more than  $\frac{1}{4}$  of the plate. The message to make half your grains whole is stressed throughout accompanying consumer education materials.
- ◆ The remaining space on the plate is reserved for sources of **protein**. Specifically, the Dietary Guidelines recommend lean meats and poultry, plant sources of protein, and inclusion of fish twice a week.
- ◆ A cup of **dairy** appears next to the plate. Depending on personalized calorie recommendations, consumers should have 2–3 cups per day of low-fat or fat-free dairy products or other rich sources of calcium.

Unlike MyPyramid, MyPlate does not display a separate fats and oils group. Oils are an essential part of the diet, but they are usually incorporated into other food groups. Americans typically consume more fats and oils than they need. Actionable health messages tied to the MyPlate campaign will reinforce recommendations to limit solid fats and focus instead on plant oils, which are sources of essential fatty acids and vitamin E.



## Actionable Health Messages

Consumer research points to the need for simple, actionable health messages to capture the attention of the public and achieve successful behavior change. Accordingly, ChooseMyPlate.gov provides a series of succinct imperatives to help Americans make healthier food choices. Selected messages for consumers include:

### Balancing Calories

- ◆ Enjoy your food, but eat less.
- ◆ Avoid oversized portions.

### Foods to Increase

- ◆ Make half your plate fruits and vegetables.
- ◆ Make at least half your grains whole.
- ◆ Switch to skim or 1% milk.

### Foods to Reduce

- ◆ Compare sodium in foods like soup, bread, and frozen meals – and choose the foods with lower numbers.
- ◆ Drink water instead of sugary drinks.

## A Coordinated Effort

The MyPlate icon fits together with a variety of educational tools as part of a multi-year Dietary Guidelines for Americans consumer communications initiative. USDA's Center for Nutrition Policy and Promotion heads up a National Communicator's Network to coordinate the efforts of public and private organizations. This partnership will expand the reach of public health messages with the goal of motivating consumers to change health behaviors. Partners include the Department of Health and Human Services (sponsors of the 2008 Physical Activity Guidelines) as well as city governments, educational institutions, health networks, fitness centers, grocery chains, and a growing list of other organizations throughout the nation.

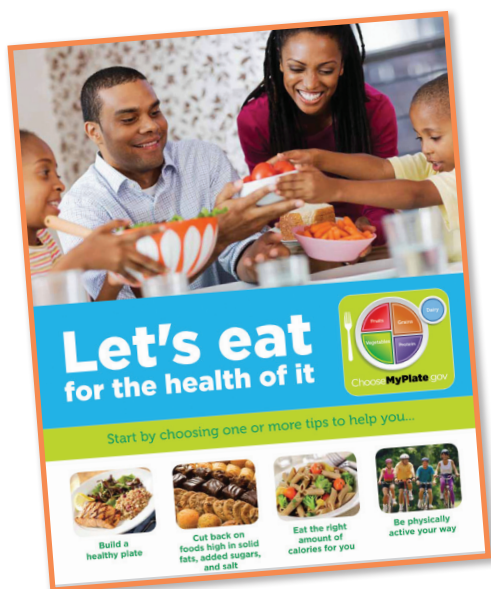
Over the coming years, the Partnership program will promote a series of nutrition messages, starting with "Make half your plate fruits and vegetables." The campaign will also incorporate the physical activity theme, "Be Active Your Way."



DATES	THEME	SELECTED KEY MESSAGE
Sept. – Dec. 2011	Foods to Increase	Make half your plate fruits and vegetables.
Jan. – April 2012	Balancing Calories	Enjoy your food, but eat less.
May – Aug. 2012	Foods to Reduce	Drink water instead of sugary drinks.
Sept. – Dec. 2012	Foods to Increase	Make at least half your grains whole grains.
Jan. – April 2013	Balancing Calories	Avoid oversized portions.
May – Aug. 2013	Foods to Reduce	Compare sodium in foods like soup, bread and frozen meals – and choose the foods with lower numbers.
Sept. – Dec. 2013	Foods to Increase	Switch to fat-free or low-fat (1%) milk.

## Resources to Reach the Public

USDA's consumer brochure, *Let's Eat for the Health of It*, emphasizes several tips for improving Americans' diets. Each tip is clearly broken down into specific actions the consumer can take. For example, one key recommendation is "Cut back on foods high in solid fats, added sugars, and salt." One way a consumer can put this message into practice is to choose foods and drinks with little or no added sugars. Specific techniques associated with this recommendation include "Drink water instead of sugary drinks," "Select fruit for dessert," and "Choose 100% fruit juice instead of fruit-flavored drinks."



USDA's **Ten Tips Nutrition Education series** provides access to one-page handouts for consumers and health educators. The materials cover a variety of topics, such as "Kid-friendly veggies and fruits," "Healthy eating for vegetarians," and "Got your dairy today?" **Sample menus** and **recipes** are available online for consumers who are ready to make a change and need a place to start.

Food *quality* is just as important as food *quantity* when it comes to good nutrition. The MyPlate icon doesn't address the types of foods to choose within each food group. Making appropriate food choices for weight management and prevention of diet-related chronic diseases requires consumers to have some nutrition knowledge. Fortunately, public health messages and online content related to MyPlate are available to educate Americans.

In addition to the printed consumer brochure, **ChooseMyPlate.gov** offers in-depth information regarding the Dietary Guidelines, as well as several interactive tools for consumers. Users can plug in their age, gender, height, and weight to find their estimated calorie needs and a **Daily Food Plan** that shows how to meet nutrient needs within these calorie limits. Modified food plans are available for preschoolers and pregnant or breast-feeding mothers, as well. **MyFood-a-Pedia** allows users to locate calorie and food group information for specific food entries. Daily trackers enable users to self-monitor food and activity. Many of these interactive tools have been modified from the MyPyramid campaign, while some are still formatted for the older icon. Updates and improvements to the interactive tools are ongoing. MyPyramid resources are also archived on the website.

## Reviews of MyPlate

Although MyPlate will promote important changes in American diets, it does have some limitations. Some critics say that the new icon is too simple. For example, it does not immediately provide information about overall calories, serving sizes, number of servings, or types of foods to choose within each food group. However, many of these details will vary by person. Users will need to access the accompanying materials available on **ChooseMyPlate.gov** to obtain a personally tailored daily food plan.

MyPlate shows how to build a healthy plate at mealtimes, but it does not adequately address the total diet, which, in reality, includes many snacks between meals. Consumer messages about healthy snacking will be a part of the consumer communications initiative over the next few years.



As with any public health campaign, it is possible that the people who need it most will overlook the MyPlate message. Educated consumers with access to interactive MyPlate tools likely already comply with many of the Dietary Guidelines. Populations with poor diets may be unlikely or unable to click through to find a personalized daily food plan. The USDA's best response is to rely on the

coordinated partnership of the National Communicator's Network to spread those actionable MyPlate messages, such as "Switch to fat-free or low-fat (1%) milk."

Anne M. Smith, PhD, RD, co-author of *Contemporary Nutrition*, says, "The new MyPlate icon is an attractive and relevant tool that immediately shows us how to build a healthy plate at meals. The

strength of MyPlate lies in its simplicity. It conveys the major messages that are needed when shopping, cooking, and eating and can be enhanced with the details provided on the MyPlate website and in forthcoming materials. We finally have a tool that is easy to remember and that sends the obvious message that close to half of the foods we eat should be fruits and vegetables."



## HEALTHY PEOPLE 2020 *Setting Goals*

Every 10 years, DHHS issues a collection of health objectives for the nation. These objectives are developed by experts in federal agencies and target major public health concerns, setting goals for the

coming decade. *Healthy People 2020* sets forth more than 600 health objectives across 42 topic areas, outlining national standards to eliminate health disparities, improve access to health education and

quality health care, and strengthen public health services. The overarching goals of *Healthy People 2020* are to:

- ◆ Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death
- ◆ Achieve health equity, eliminate disparities, and improve health of all groups
- ◆ Create social and physical environments that promote good health for all
- ◆ Promote quality of life, healthy development, and healthy behaviors across all life stages



▲ As the American population becomes more ethnically and culturally diverse, health needs change and health disparities increase. *Healthy People 2020* objectives call for increased cultural sensitivity as we work toward prevention and treatment of health issues in a diverse population.

The vision for 2020 is a society in which all people live long, healthy lives. Important new features of *Healthy People 2020* include a focus on health equity and social determinants of health and a move to an interactive, personalized website.



*Healthy People 2020*, like earlier versions, includes **Nutrition and Weight Status** objectives that target individual behaviors, as well as the policies and environments that support these behaviors. Nutrition and weight status are important risk factors for a myriad of health conditions that burden the public health system, including heart disease, diabetes, osteoporosis, and cancer. Social determinants of health relevant to nutrition, such as education, access to safe places to exercise or play, and availability and expense of healthy food options, are now emphasized within this topic area and others.

The new **Preparedness** topic area aims to improve the nation's ability to prevent, prepare for, respond to, and recover from a major health incident, such as the disease outbreaks, natural disasters, and terrorist attacks that have peppered our last decade.

Other new topic areas highlight changes in the health needs of specific segments of the population: **Early and Middle Childhood, Adolescence, and Older Adults**. Because young people develop habits, including eating and physical activity behaviors that are likely to persist throughout life, new objectives promote strengthened health education in schools and communities and the fostering of an environment in which young people can develop healthy habits.



▲ *Healthy People 2020* emphasizes that education can improve elder care. Healthcare professionals require specific training to coordinate care that frequently involves multiple disciplines. Caregivers, who are often untrained and unpaid, need guidance and support. Older adults, as well, must be educated to properly care for themselves.

Older adults are the fastest-growing segment of the American population and are at high risk of experiencing the chronic health problems that so severely impact our health care system. The objectives for older adults include improving access to health care, helping older adults manage their own health conditions, and ensuring the proper training and support of professionals and nonprofessionals who care for this population.

A scientifically exciting new topic area is **Genomics**. Nine of the 10 leading causes of death have a strong genetic component. Genetic testing is becoming a valuable tool for improving diagnosis and treatment of chronic diseases, especially for cancers of the breast and colon. In combination with family history, genetic testing can help health care professionals guide patients in treatment options, including lifestyle changes.

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