



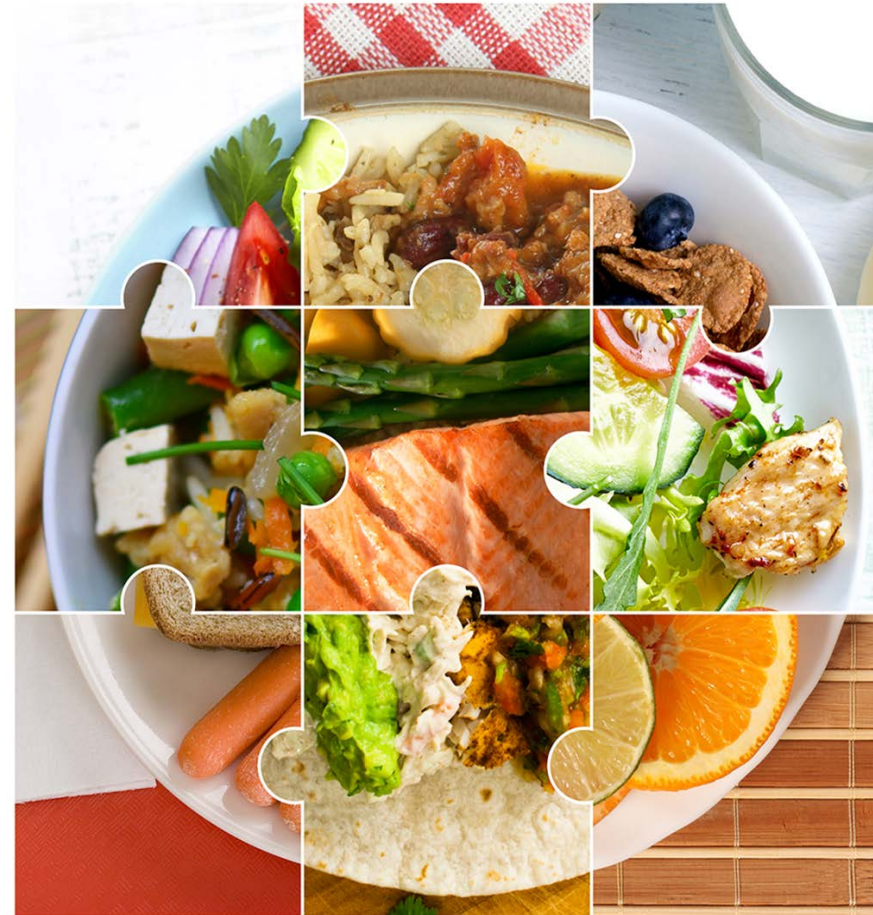
**National Diabetes Education Program**

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## NDEP Webinar Series

# The Dietary Guidelines for Americans 2015-2020

What Are They, How Have They Changed, and How Can You Use Them in Practice?



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# Welcome



**Betsy Rodríguez, RN, MSN, CDE**

Deputy Director  
National Diabetes Education Program  
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Centers for Disease Control and Prevention



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# Introduction

- Managing a chronic disease like diabetes requires multiple decisions each day on a range of complex processes.
- There are no vacations, no time-outs.
- What can I eat? This is the most common question from people with diabetes.
- Nutrition plays an important role in controlling or preventing diabetes.



# Learning Objectives

- Explain the purpose of the Dietary Guidelines for Americans (DGA), how they have changed, and how they should be used in diabetes education.
- Describe the impact that changes to the dietary guidelines can have on the broader public health nutrition world.
- Name the tools to apply the recommendations in public health.
- Identify aspects of culture that can facilitate the use of the dietary guidelines





# Knowledge Check

- **The main theme of the *Dietary Guidelines 2015–2020* is:**
  - A. Importance of eating patterns as a whole; combination of foods and drinks that people consume over time.
  - B. It's comparison of how Americans are eating now against recommendations, providing data by age groups and sex.
  - C. Information about shifts (healthy substitutions in food choices) for achieving healthy eating patterns.
  - D. All of the above

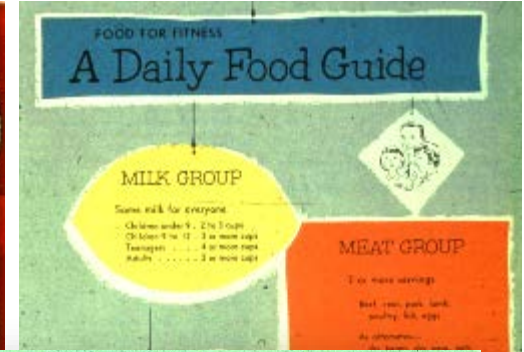
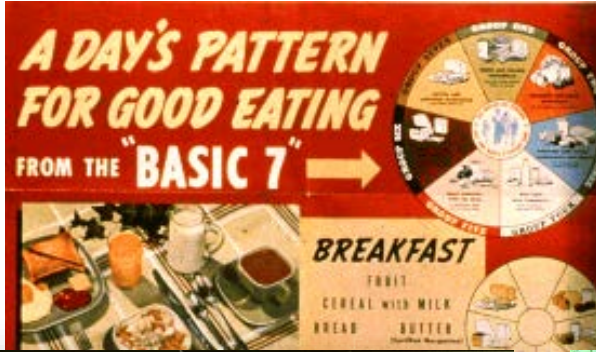
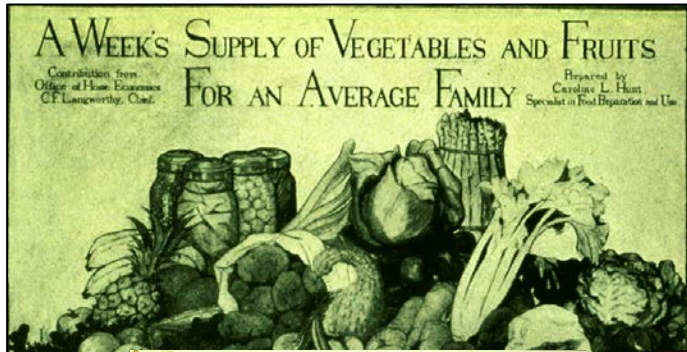


# Knowledge Check

The main theme of the Dietary Guidelines 2015–2020 is:



1917 → 1943 → 1956 → 1979



U.S. DEPT. OF AGRICULTURE U.S. FOOD ADMINISTRATION

**Choose Your Food Wisely**

STUDY THESE FIVE FOOD GROUPS

Every food you eat may be put into one of these groups. Each group serves a special purpose in nourishing your body. You should choose some food from each group daily.

1. VEGETABLES AND FRUITS.
2. MILK, EGGS, FISH, MEAT, CHEESE, BEANS, PEAS, PEANUTS.
3. CEREALS—CORN MEAL, OATMEAL, RICE, BREAD, ETC.
4. SUGAR, SIRUPS, JELLY, HONEY, ETC.
5. FATS—BUTTER, MARGARINE, COTTONSEED OIL, OLIVE OIL, DRIPPINGS, SUET.

You can exchange one food for another *in the same group*. For example, oatmeal may be used instead of wheat, and eggs, or sometimes beans, instead of meat; but oatmeal can not be used instead of milk. Use both oatmeal and milk.

**YOU NEED SOME FOOD FROM EACH GROUP EVERY DAY—DON'T SKIP ANY**

11723-17

**EAT FRUITS & VEGETABLES**

Eat 2 or more fruits every day (one citrus)  
 Eat 2 or more vegetables every day (one green or yellow)

6 ways to serve more fruit

- ... as an appetizer
- ... with meat
- ... in salads
- ... in pies
- ... as dessert
- ... with cereals

6 ways to serve more vegetables

- ... as juices
- ... in vegetable pies
- ... in salads
- ... in "vegetable" combinations
- ... in soup
- ... in raw vegetable appetizers or garnishes

THE SATURDAY EVENING POST

**A Guide To Good Eating USE DAILY...**

**DAIRY FOODS:** 2 TO 4 GLASSES MILK—CHILDREN, 4 OR MORE GLASSES—TEENAGERS, 2 OR MORE GLASSES—ADULTS. CHEESE, ICE CREAM AND OTHER MILK MADE FOODS CAN SUPPLY PART OF THE MILK.

**MEAT GROUP:** 2 OR MORE SERVINGS. MEATS, FISH, POULTRY, EGGS, OR CHEESE—WITH DRY BEANS, PEA, NUTS AS ALTERNATES.

**VEGETABLES AND FRUITS:** 4 OR MORE SERVINGS. INCLUDE DARK GREEN OR YELLOW VEGETABLES, CITRUS FRUIT OR TOMATOES.

**BREADS AND CEREALS:** 4 OR MORE SERVINGS. ENRICHED OR WHOLE GRAIN, ADDITIONAL MILK IMPROVES NUTRITIONAL VALUES.

This is the foundation for a good diet. Use more of these and other foods as needed for growth, for activity, and for desirable weight.





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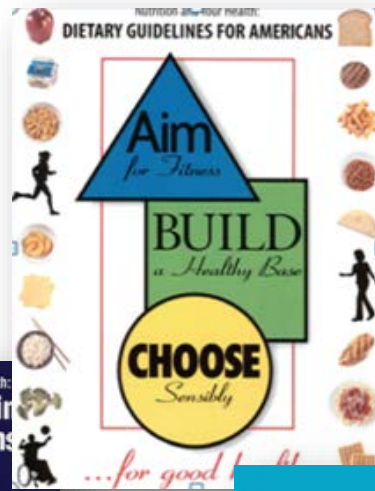
1980



1985



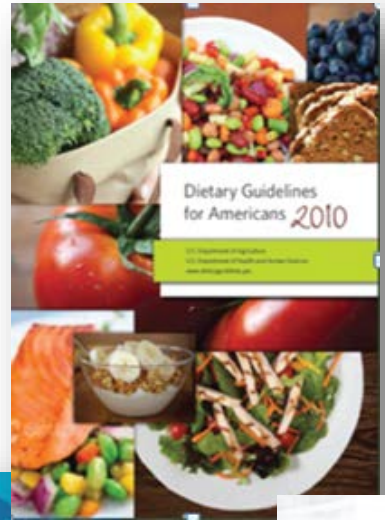
1990



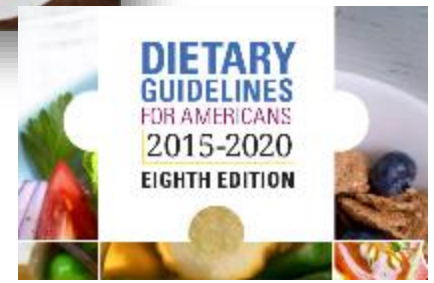
1995



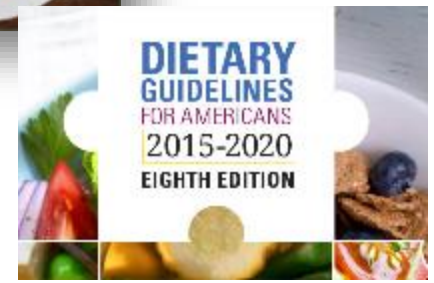
2000



2005



2010



2015





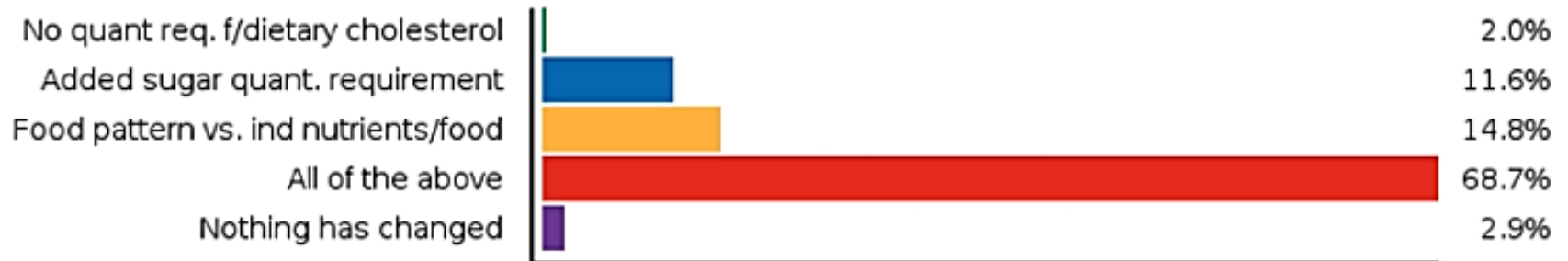
# Knowledge Check

- **What's changed in the Dietary Guidelines 2015–2020?**
  - A. No longer have a quantitative requirement for dietary cholesterol
  - B. Added sugar quantitative requirement
  - C. Emphasis on food pattern rather than individual nutrients and specific food
  - D. All of the above
  - E. Nothing has changed



# Knowledge Check

What's changed in the Dietary Guidelines 2015-2020?





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# Today's Presenters



**Jennifer Seymour, PhD**

Senior Policy Advisor  
Division of Nutrition, Physical Activity,  
and Obesity  
Centers for Disease Control and  
Prevention



**Lorena Drago, MS, RD, CDN, CDE**

Founder  
Hispanic Foodways





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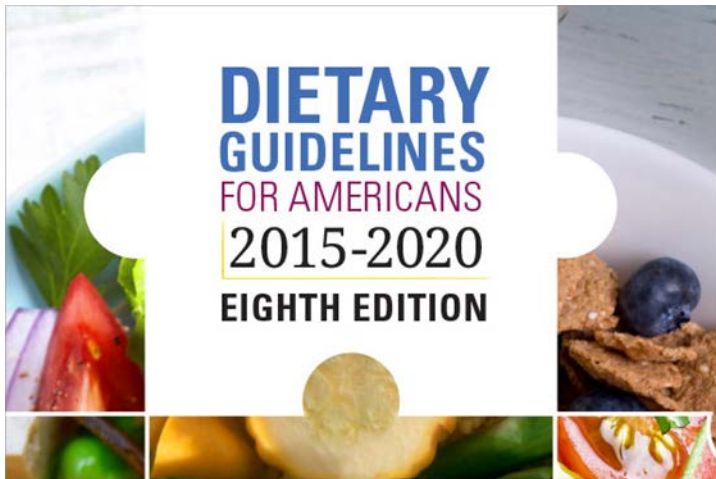
Jennifer Seymour, PhD

# **DIETARY GUIDELINES FOR AMERICANS 2015-2020**



# Dietary Guidelines for Americans 2015-2020

## What It Is, What It Is Not



- Provide evidence-based recommendations about the components of a healthy and nutritionally adequate diet
- Focus on disease prevention rather than disease treatment
- Inform Federal food, nutrition, and health policies and programs



# Dietary Guidelines for Americans 2015-2020

## Figure 1-3

### 1 Review the Science

First, an external Advisory Committee creates the Advisory Report and submits it to the Secretaries of HHS and USDA.

This report is informed by:

- Original systematic reviews
- Review of existing systematic reviews, meta-analyses, and reports by Federal agencies or leading scientific organizations
- Data analyses
- Food pattern modeling analyses

### 2 Develop the *Dietary Guidelines*

Using the previous edition of the *Dietary Guidelines*, the Advisory Report, and consideration of public and Federal agency comments, HHS and USDA develop a new edition of the *Dietary Guidelines*. The *2015-2020 Dietary Guidelines for Americans* includes:

**5 Guidelines**



**Key Recommendations that support the Guidelines**

**Science-based nutrition guidance for both professionals and organizations working to improve our nation's health.**

### 3 Implement the *Dietary Guidelines*

Federal programs apply the *Dietary Guidelines* to meet the needs of Americans through food, nutrition, and health policies and programs—and in nutrition education materials for the public.





# **Dietary Guidelines for Americans 2015-2020**

## **Contents**

- Executive Summary
- Introduction
- Chapter 1: Key Elements of Healthy Eating Patterns
- Chapter 2: Shifts Needed to Align With Healthy Eating Patterns
- Chapter 3: Everyone Has a Role in Supporting Healthy Eating Patterns
- Appendixes



# Dietary Guidelines for Americans 2015-2020

## The Guidelines

- 1. Follow a healthy eating pattern across the lifespan.** All food and beverage choices matter. Choose a healthy eating pattern at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.
- 2. Focus on variety, nutrient density, and amount.** To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.
- 3. Limit calories from added sugars and saturated fats and reduce sodium intake.** Consume an eating pattern low in added sugars, saturated fats, and sodium. Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.



# Dietary Guidelines for Americans 2015-2020

## The Guidelines (cont.)

- 4. Shift to healthier food and beverage choices.** Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices. Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.
- 5. Support healthy eating patterns for all.** Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.





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CHAPTER

**1**

# Key Elements of Healthy Eating Patterns



# Key Elements of Healthy Eating Patterns: Key Recommendations

- **Consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level.**
- **A healthy eating pattern includes:**
  - A variety of vegetables from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy, and other
  - Fruits, especially whole fruits
  - Grains, at least half of which are whole grains
  - Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
  - A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
  - Oils
- **A healthy eating pattern limits:**
  - Saturated fats and *trans* fats, added sugars, and sodium



# Key Elements of Healthy Eating Patterns: Key Recommendations (cont.)

Key recommendations that are quantitative are provided for several components of the diet that should be limited. These components are of particular public health concern in the United States, and the specified limits can help individuals achieve healthy eating patterns within calorie limits:

- Consume less than 10 percent of calories per day from added sugars
- Consume less than 10 percent of calories per day from saturated fats
- Consume less than 2,300 milligrams (mg) per day of sodium
- If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age
- Meet the *Physical Activity Guidelines for Americans*





# Principles of Healthy Eating Patterns

- **An eating pattern represents the totality of all foods and beverages consumed**
  - It is more than the sum of its parts; the totality of what individuals habitually eat and drink act synergistically in relation to health.
- **Nutritional needs should be met primarily from foods rather than with supplements**
  - Individuals should aim to meet their nutrient needs through healthy eating patterns that include foods in nutrient-dense forms.
- **Healthy eating patterns are adaptable**
  - Any eating pattern can be tailored to the individual's socio-cultural and personal preferences.



# The Science Behind Healthy Eating Patterns

- **Systematic reviews of scientific research**
  - To examine relationships between the overall eating pattern, including its constituent foods, beverages, and nutrients, and health outcomes.
- **Food pattern modeling**
  - To assess how well various combinations and amounts of foods from all food groups would result in healthy eating patterns that meet nutrient needs and accommodate limits, such as those for saturated fats, added sugars, and sodium.
- **Analyses of current intakes**
  - To identify areas of potential public health concern.



# Inside Healthy Eating Patterns: Food Groups — Examples of Content

## Vegetables

- Include a variety of vegetables from all five subgroups—dark green, red and orange, legumes (beans and peas), starchy, and other.
- Include all fresh, frozen, canned, and dried options in cooked or raw forms, including vegetable juices.
- Vegetables should be consumed in a nutrient-dense form, with limited additions such as salt, butter, or creamy sauces.

## Dairy

- Include fat-free and low-fat (1%) dairy, including milk, yogurt, cheese, or fortified soy beverages (soymilk).
- Fat-free or low-fat milk and yogurt, in comparison to cheese, contain less saturated fats and sodium and more potassium, vitamin A, and vitamin D.



# Inside Healthy Eating Patterns: Other Components

“In addition to the food groups, it is important to consider other food components when making food and beverage choices.”

- Added sugars
- Saturated fats
- *Trans* fats
- Cholesterol
- Sodium
- Alcohol
- Caffeine





# Inside Healthy Eating Patterns: Other Components — Examples of Content

## Cholesterol

- Individuals should eat as little dietary cholesterol as possible while consuming a healthy eating pattern.
- The Healthy U.S.-Style Eating Pattern contains approximately 100 to 300 mg of cholesterol across the 12 calorie levels.

## Caffeine

- Most caffeine evidence focuses on coffee.
- Three to five 8-oz cups/day can be included in healthy eating patterns.
- Individuals who do not consume caffeinated beverages are not encouraged to add them.
- In addition, caffeinated beverages may contain added calories from cream, whole or 2% milk, creamer, and added sugars, which should be limited.



# Healthy Eating Patterns: Detailed Information

Call-out boxes provide details on many topics:

- Healthy physical activity patterns
- Importance of calorie balance
- About legumes (beans and peas)
- How to make half of grains whole grains
- About seafood
- About meats and poultry
- Dietary fats—the basics
- Dietary Approaches to Stop Hypertension (DASH)
- Caffeine



# Healthy Eating Patterns: Multiple Approaches

“There are many ways to consume a healthy eating pattern, and the evidence to support multiple approaches has expanded over time.”

- Examples of healthy eating patterns in the *Dietary Guidelines* include:
  - Healthy U.S.-Style Eating Pattern
  - Healthy Mediterranean-Style Eating Pattern
  - Healthy Vegetarian Eating Pattern



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CHAPTER

# 2

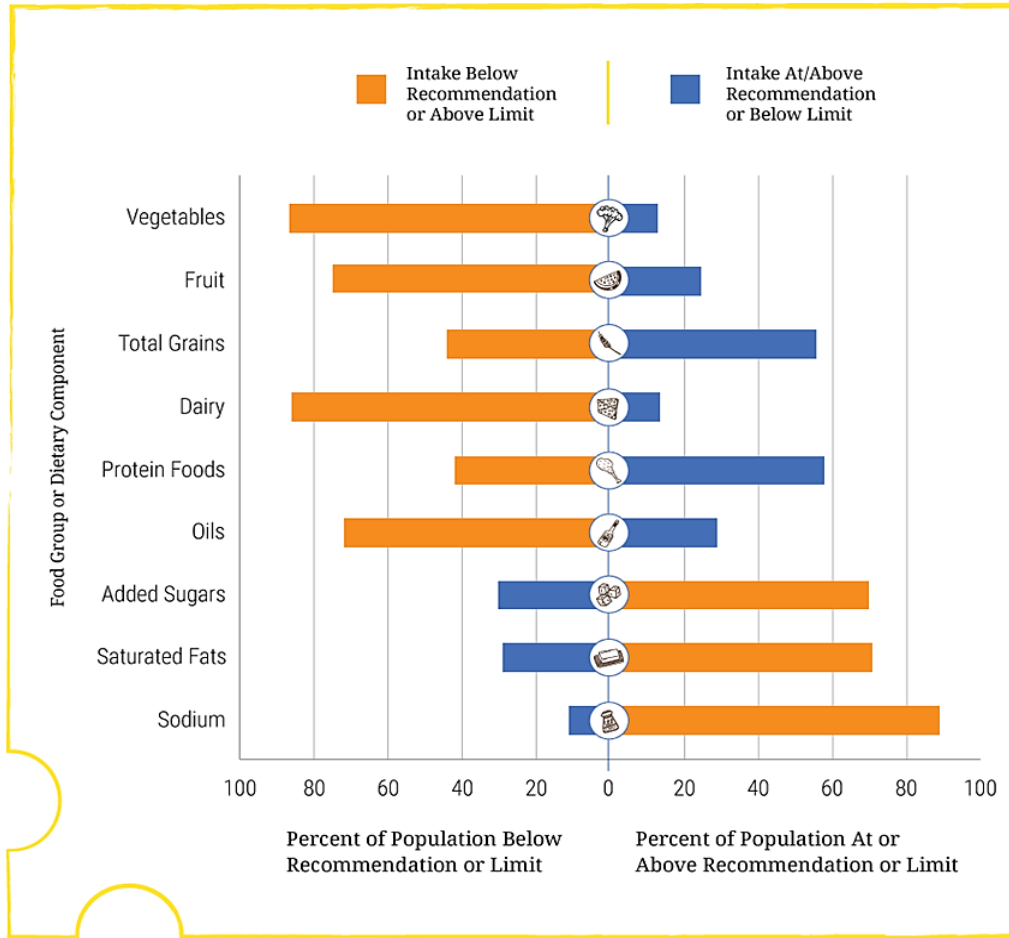
## Shifts Needed To Align With Healthy Eating Patterns





# Current Eating Patterns in the United States

## % U.S. Population ≥1 yr Below, At, or Above Each Dietary Goal or Limit (Fig 2-1)



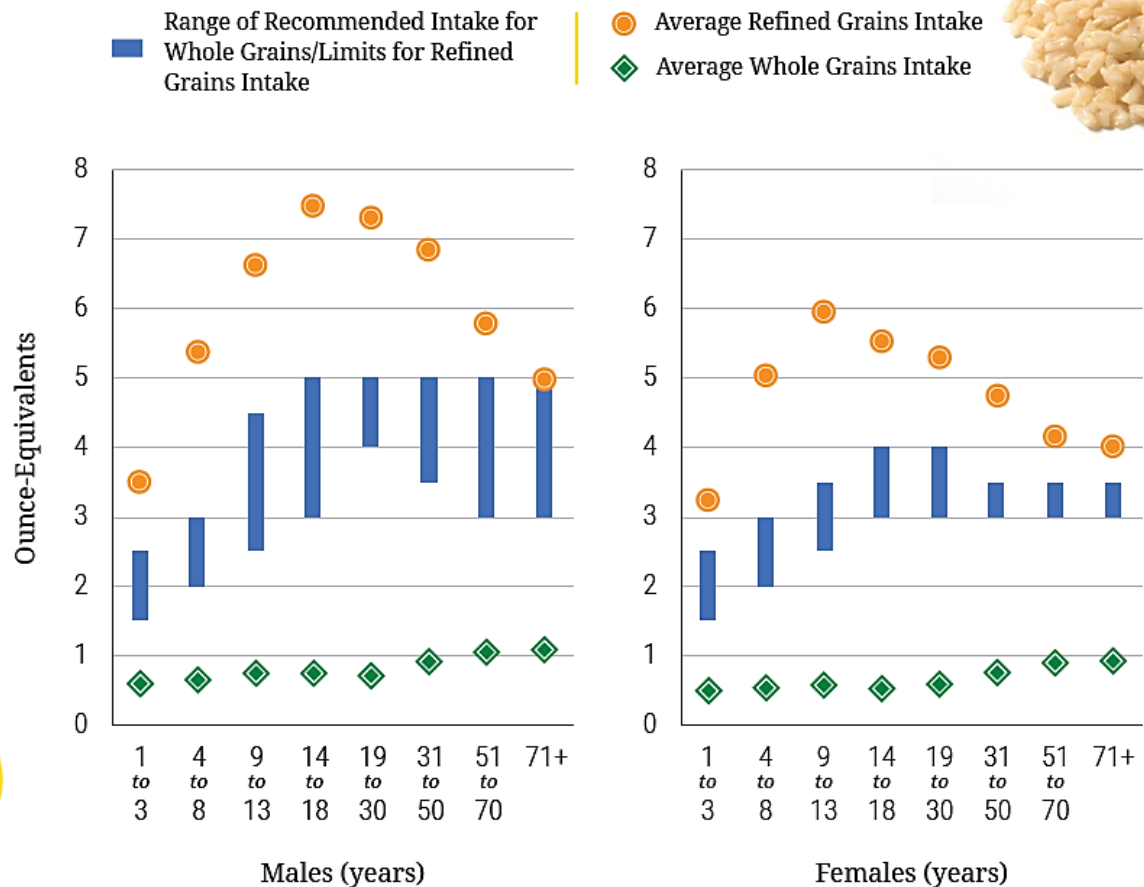
**Note:** The center (0) line is the goal or limit. For most, those represented by the orange sections of the bars, shifting toward the center line will improve their eating pattern.

**Data Source:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group. Healthy U.S.-Style Food Patterns, which vary based on age, sex, and activity level, for recommended intakes and limits.



# Whole and Refined Grains: Intakes and Recommendations

## Average Intakes Compared to Ranges of Recommendations and Limits (Figure 2-5)

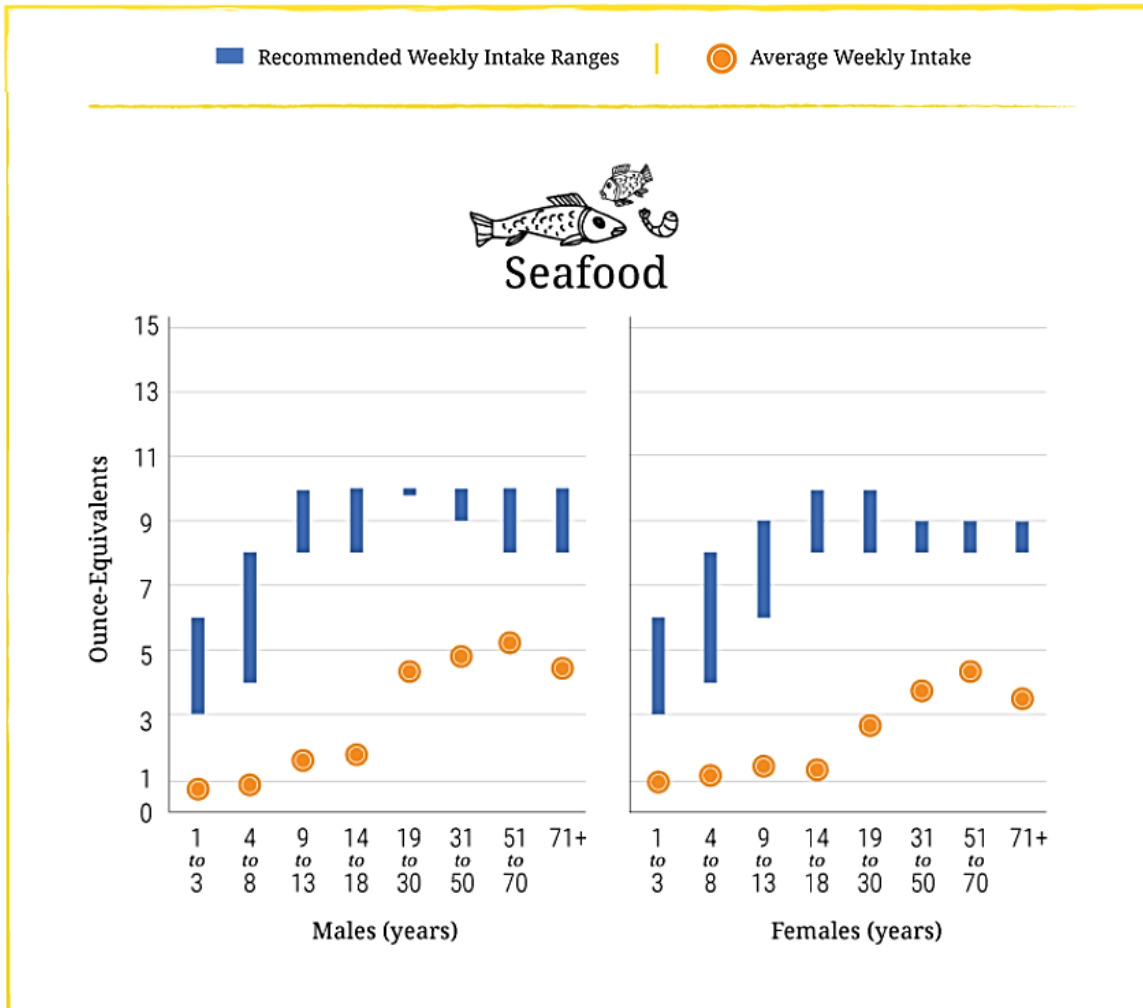


**Note:** Recommended daily intake of whole grains is to be at least half of total grain consumption, and the limit for refined grains is to be no more than half of total grain consumption. The blue vertical bars on this graph represent one half of the total grain recommendations for each age-sex group, and therefore indicate recommendations for the minimum amounts to consume of whole grains or maximum amounts of refined grains. To meet recommendations, whole grain intake should be within or above the blue bars and refined grain intake within or below the bars.

**Data Sources:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group. Healthy U.S.-Style Food Patterns, which vary based on age, sex, and activity level, for recommended intake ranges.

# Seafood: Intakes and Recommendations

## Average Weekly Intakes Compared to Ranges of Recommendations (Fig 2-6)



**Data Sources:**  
 What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group.  
 Healthy U.S.-Style Food Patterns, which vary based on age, sex, and activity level, for recommended intake ranges



# Shifts to Align with Healthy Eating Patterns: Examples

- Increasing **vegetables** in mixed dishes while decreasing the amounts of refined grains or meats high in saturated fat and/or sodium.
- Incorporating **seafood** in meals twice per week in place of meat, poultry, or eggs.
- Using vegetable **oil** in place of solid fats when cooking, and using oil-based dressings and spreads on foods instead of those made from solid fats.
- Choosing beverages with no **added sugars**, such as water.
- Using the Nutrition Facts label to compare **sodium** content of foods and choosing the product with less sodium.





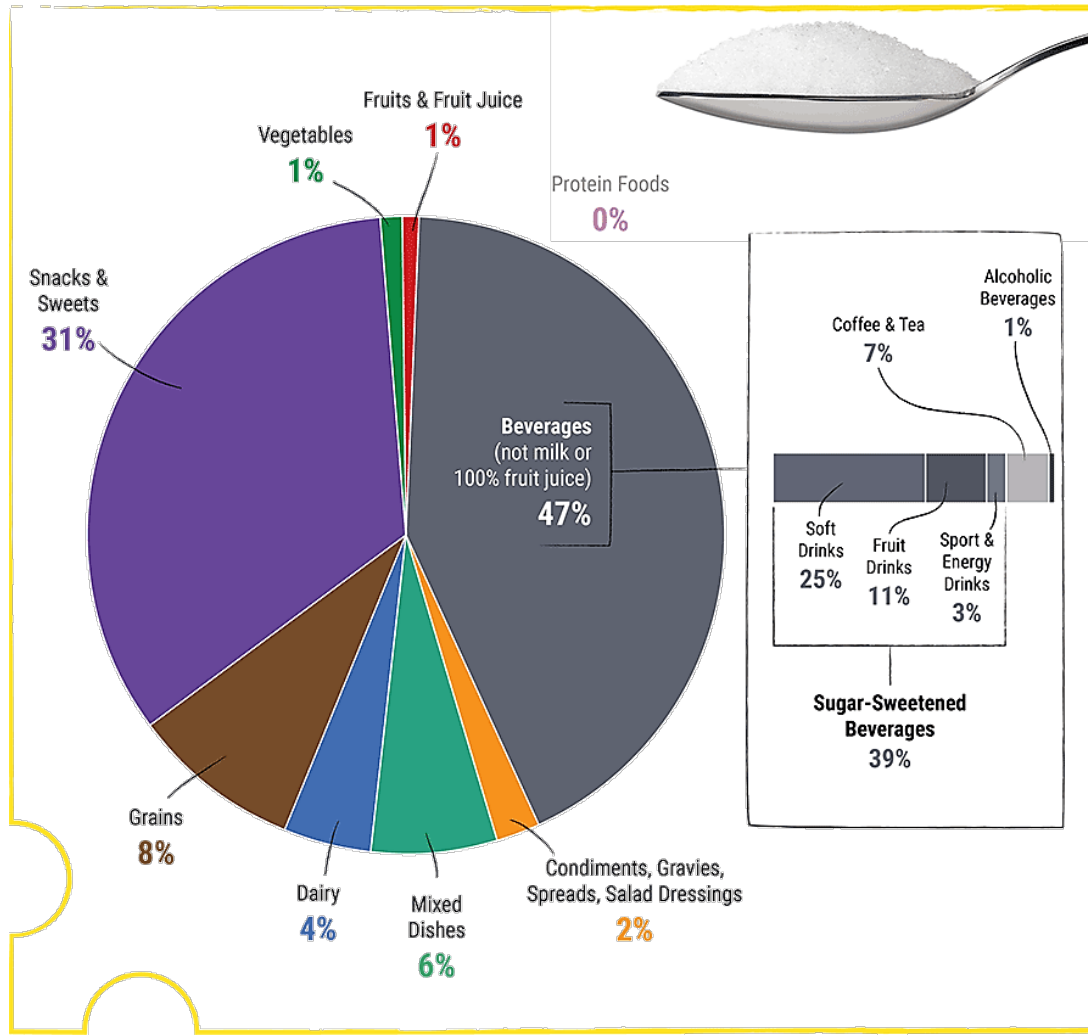
## Major Messages from Chapter 2

- The U.S. population, across almost every age and sex group, consumes eating patterns that are:
  - low in vegetables, fruits, whole grains, dairy, seafood, and oil
  - high in refined grains, added sugars, saturated fats, sodium, and
  - for some age-sex groups, high in the meats, poultry, and eggs subgroup.
- Young children and older Americans generally are closer to the recommendations than are adolescents and young adults.



# Food Sources of Added Sugars

U.S. Population Ages 2 Years and Older (Figure 2-10)

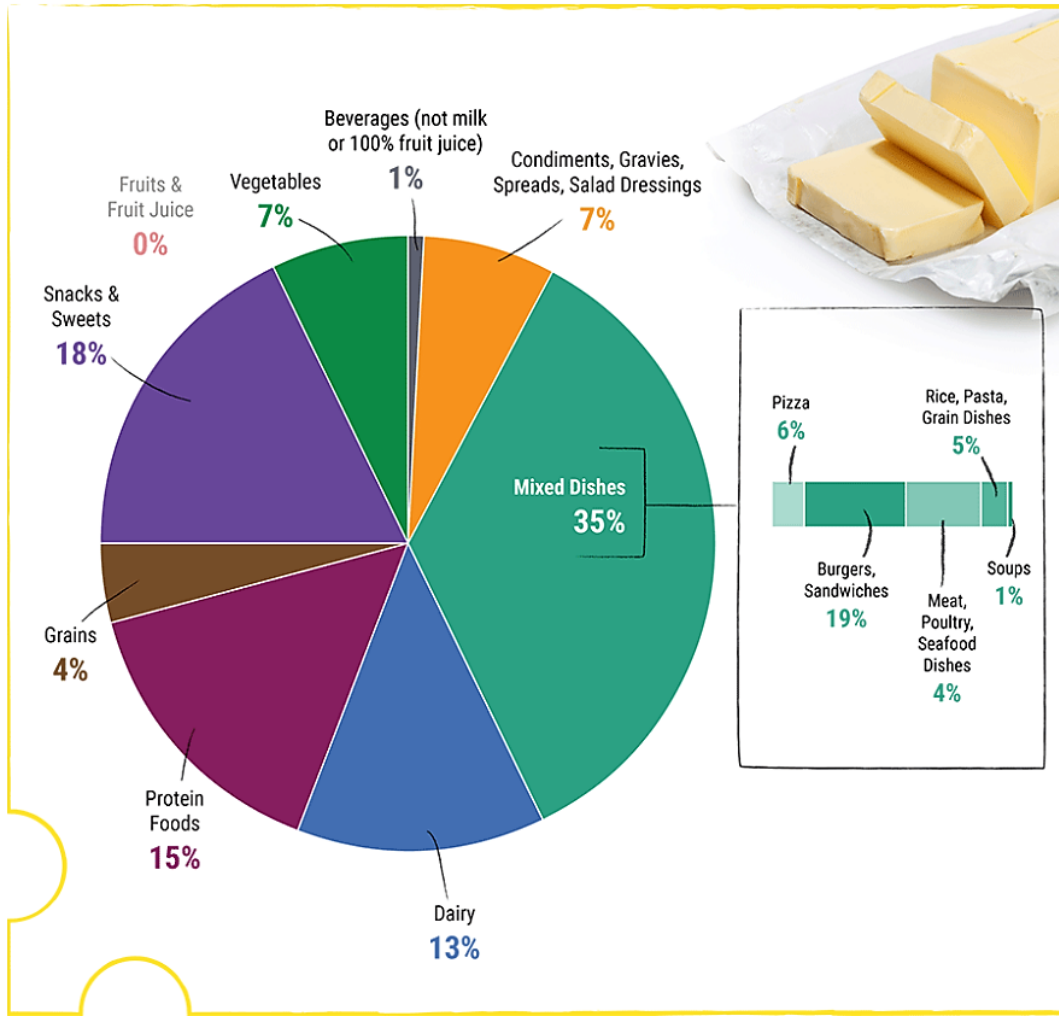


**Data Source:** What We Eat in America (WWEIA) Food Category analyses for the 2015 Dietary Guidelines Advisory Committee. Estimates based on day 1 dietary recalls from WWEIA, NHANES 2009-2010.



# Food Sources of Saturated Fats

U.S. Population Ages 2 Years and Older (Figure 2-12)

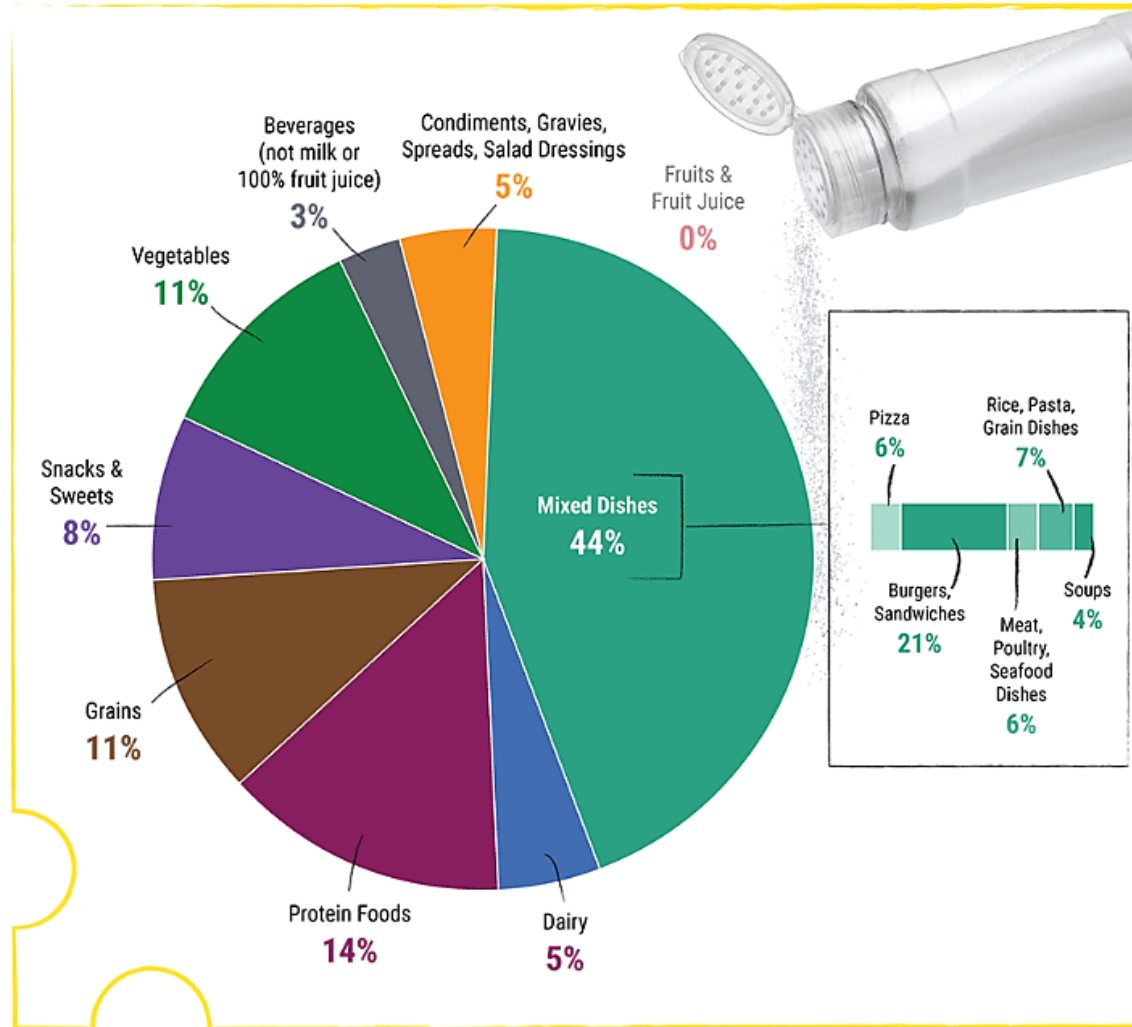


**Data Source:** What We Eat in America (WWEIA) Food Category analyses for the 2015 Dietary Guidelines Advisory Committee. Estimates based on day 1 dietary recalls from WWEIA, NHANES 2009-2010.



# Food Sources of Sodium

## Food Category Sources of Sodium in U.S. Population ≥2 Years (Figure 2-14)



**Data Source:** What We Eat in America (WWEIA) Food Category analyses for the 2015 Dietary Guidelines Advisory Committee. Estimates based on day 1 dietary recalls from WWEIA, NHANES 2009-2010.





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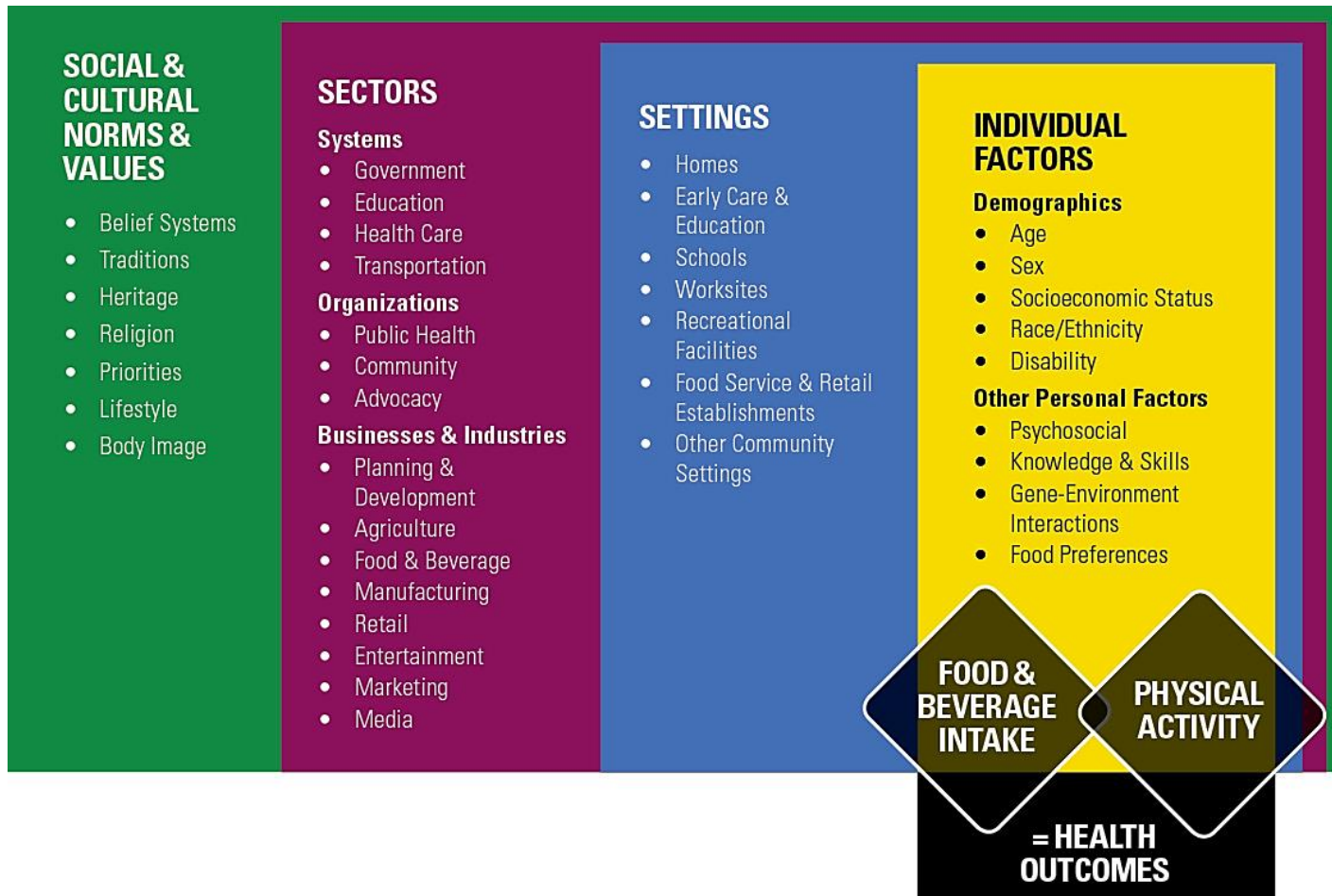
CHAPTER

**3**

# Everyone Has a Role in Supporting Healthy Eating Patterns



# Creating and Supporting Healthy Choices (Figure 3-1)



**Data Source:** Adapted from:  
(1) Centers for Disease Control and Prevention. Division of Nutrition, Physical Activity, and Obesity. National Center for Chronic Disease Prevention and Health Promotion. Addressing Obesity Disparities: Social Ecological Model. Available at: [http://www.cdc.gov/obesity/health\\_equity/addressingtheissue.html](http://www.cdc.gov/obesity/health_equity/addressingtheissue.html). Accessed October 19, 2015. (2) Institute of Medicine. Preventing Childhood Obesity: Health in the Balance, Washington (DC): The National Academies Press; 2005, page 85. (3) Story M, Kaphingst KM, Robinson-O'Brien R, Glanz K. Creating healthy food and eating environments: Policy and environmental approaches. *Annu Rev Public Health* 2008; 29:253-272.



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# Strategies To Align Settings With the *Dietary Guidelines for Americans 2015-2020* (Figure 3-3)

Example:



View  
Previous

Healthy meals and snacks



View  
Next





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# Implementing the Guidelines through MyPlate (Fig. 3-2)

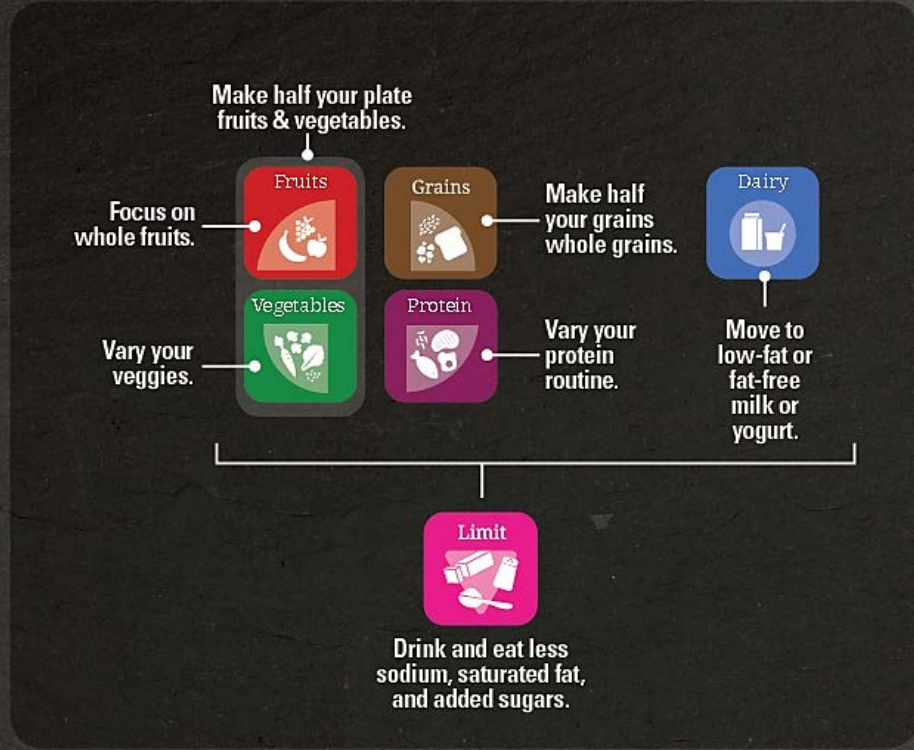
## MyPlate, MyWins.

Find your healthy eating style and maintain it for a lifetime. This means:



Everything you eat and drink over time matters.

The right mix can help you be healthier in the future.



Start with small changes to make healthier choices you can enjoy.

Visit ChooseMyPlate.gov for more tips, tools, and information.

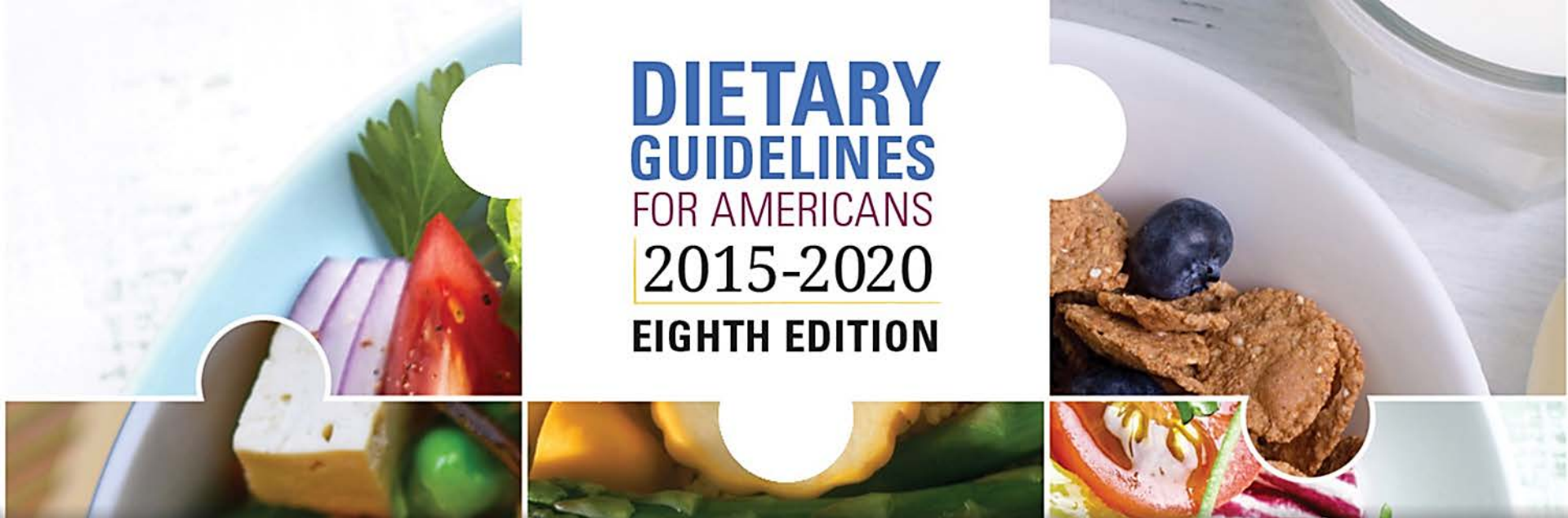


# Nutrition Facts Label Update

<b>Nutrition Facts</b>			
Serving Size 2/3 cup (55g)			
Servings Per Container About 8			
Amount Per Serving			
<b>Calories</b>	230	Calories from Fat	72
% Daily Value*			
<b>Total Fat</b>	8g		<b>12%</b>
Saturated Fat	1g		<b>5%</b>
<i>Trans</i> Fat	0g		
<b>Cholesterol</b>	0mg		<b>0%</b>
<b>Sodium</b>	160mg		<b>7%</b>
<b>Total Carbohydrate</b>	37g		<b>12%</b>
Dietary Fiber	4g		<b>16%</b>
Sugars	1g		
<b>Protein</b>	3g		
Vitamin A			10%
Vitamin C			8%
Calcium			20%
Iron			45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving size</b>	<b>2/3 cup (55g)</b>
Amount per serving	
<b>Calories</b>	<b>230</b>
% Daily Value*	
<b>Total Fat</b>	<b>8g 10%</b>
Saturated Fat	<b>1g 5%</b>
<i>Trans</i> Fat	0g
<b>Cholesterol</b>	<b>0mg 0%</b>
<b>Sodium</b>	<b>160mg 7%</b>
<b>Total Carbohydrate</b>	<b>37g 13%</b>
Dietary Fiber	<b>4g 14%</b>
Total Sugars	12g
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b>	3g
Vitamin D	2mcg 10%
Calcium	260mg 20%
Iron	8mg 45%
Potassium	235mg 6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	





**DIETARY  
GUIDELINES**  
FOR AMERICANS  
**2015-2020**  
**EIGHTH EDITION**

**[DietaryGuidelines.gov](http://DietaryGuidelines.gov)**

**Additional Resources:**

[Health.gov](http://Health.gov)

[ChooseMyPlate.gov](http://ChooseMyPlate.gov)



## Knowledge Check

- **Do you know how the *Dietary Guidelines for Americans* are used?**
  - A. To learn how to control diseases like diabetes
  - B. To inform policy makers and health professionals, not the general public
  - C. To teach health providers how to educate their patients
  - D. All of the above
  - E. None



# Knowledge Check

Do you know how the Dietary Guidelines for Americans are used?





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Lorena Drago, MS, RD, CDN, CDE

# **ADA'S NUTRITION RECOMMENDATIONS AND PRACTICAL APPLICATIONS**



# ADA Nutrition Guidelines - 2016

- No "one-size-fits-all" eating approach.
- Chosen eating pattern should be designed to improve glucose, blood pressure, and lipids.
- Individualized nutrition therapy should be provided as needed, ideally by a registered dietitian.





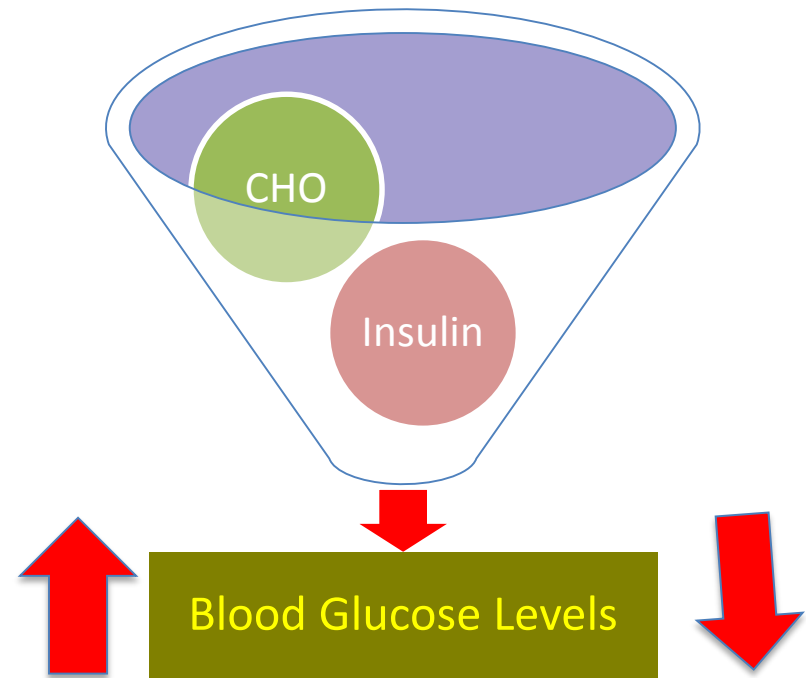
# Carbohydrates



Evidence is inconclusive for an ideal amount of carbohydrate intake for people with diabetes. Develop collaborative goals with the individual with diabetes. (C)

# Carbohydrates

- The amount of carbohydrates and available insulin may be the most important factor influencing glycemic response after eating and should be considered when developing the eating plan. (A)





# Carbohydrates

- Monitoring carbohydrate intake, whether by carbohydrate counting or experience-based estimation remains a key strategy in achieving glycemic control. (B)





# Carbohydrates

- For good health, carbohydrate intake from vegetables, fruits, whole grains, legumes, and dairy products should be advised over intake from other carbohydrate sources, especially those that contain added fats, sugars, or sodium. (B)





# Sucrose

- While substituting sucrose-containing foods for isocaloric amounts of other carbohydrates may have similar blood glucose effects, consumption should be minimized to avoid displacing nutrient-dense food choices. (A)







- Fructose consumed as “free fructose” (i.e., naturally occurring in foods such as fruit) may result in better glycemic control compared with isocaloric intake of sucrose or starch (B),
- Free fructose is not likely to have detrimental effects on triglycerides as long as intake is not excessive (>12% energy). (C)



# Sucrose

- People with diabetes should limit or avoid intake of sugar sweetened beverages (from any caloric sweetener including high fructose corn syrup and sucrose) to reduce risk for weight gain and worsening of cardiometabolic risk profile. (B)





# Fats

- Evidence is inconclusive for an ideal amount of total fat intake for people with diabetes; therefore, goals should be individualized (C); fat quality appears to be far more important than quantity. (B)
- The amount of dietary saturated fat, cholesterol, and trans fat recommended for people with diabetes is the same as that recommended for the general population. (C)



# Sodium

- The recommendation for the general population to reduce sodium to less than 2,300 mg/day is also appropriate for people with diabetes. (B)







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# Eating Patterns

- **Mediterranean Style**

- Includes abundant plant food (fruits, vegetables, breads, cereals, beans, nuts and seeds); minimally processed, seasonally fresh, and locally grown foods; fresh fruits, occasional desserts, olive oil; dairy products (mainly cheese and yogurt) consumed in low to moderate amounts; fewer than 4 eggs/week; small amounts of occasional red meat; and small/moderate amount of wine generally with meals.

- **Vegetarian and Vegan**

- Diets devoid of all flesh foods and animal-derived products and vegetarian diets (diets devoid of all flesh foods but including egg [ovo] and/or dairy [lacto] products). High intakes of fruits, vegetables, whole grains, nuts, soy products, fiber, and phytochemicals.

- **Low Fat**

- Emphasizes vegetables, fruits, starches (e.g. pasta, whole grains, starchy vegetables), lean protein, and low-fat dairy products. Total fat intake 30 percent of total energy intake and saturated fat intake, 10 percent.



# Eating Patterns (cont.)

- **Low Carbohydrate (CHO)**
  - Focuses on eating foods higher in protein (meat, poultry, fish, shellfish, eggs, cheese, nuts and seeds), fats (oils, butter, olives, avocado), and vegetables low in carbohydrate (salad greens, cucumbers, broccoli).
  - The amount of CHO allowed varies with most plans allowing fruit (e.g., berries) and higher CHO vegetables; sugar-containing foods and grain products such as pasta, rice, and bread are generally avoided.
  - No consistent definition of “low” CHO. Definitions have ranged from very low-CHO diet (21–70g/day) to moderately low-CHO diet (30 to 40% of calories from CHO).
- **Dietary Approaches to Stop Hypertension (DASH)**
  - Emphasizes fruits, vegetables, and low-fat dairy products. Includes whole grains, poultry, fish, and nuts. Reduced in saturated fat, red meat, sweets, and sugar-containing beverages. Most effective DASH reduced in sodium.

# Using the Guidelines in Practice

Translating Information into Practice



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## **Use Risk Communication**

**Explain what is “at risk”**

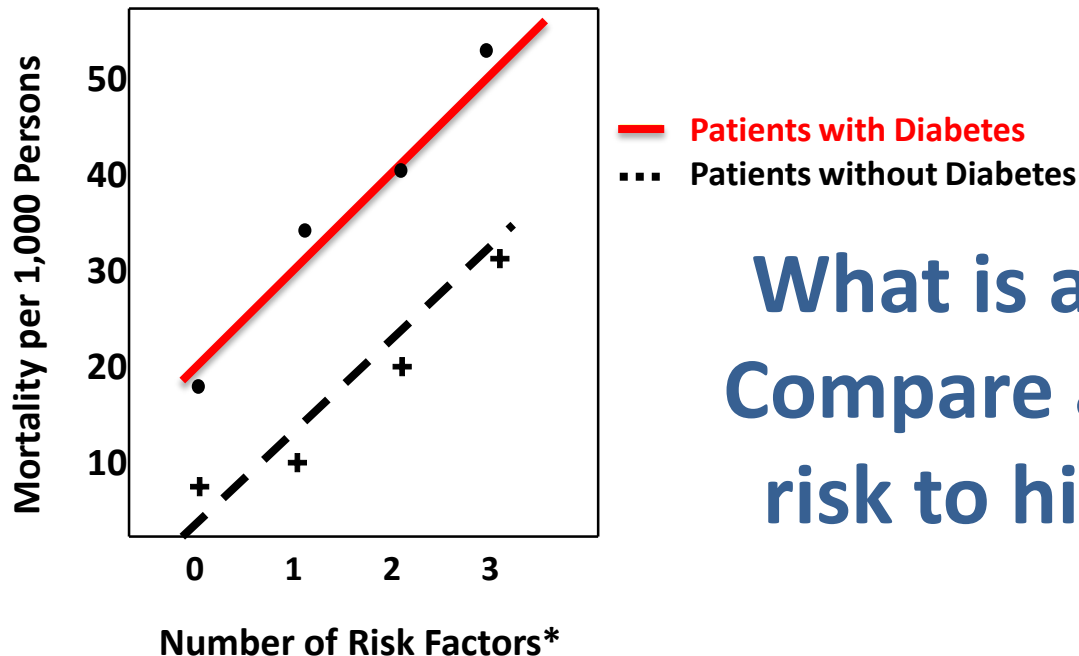
**How high is the risk (Compare high to normal)**

**Show patient his/her risk factor**

**Provide treatment strategies**

**Include testimonials (Group-specific)**

# Impact of Diabetes on Cardiovascular Mortality



**What is at Risk?**  
**Compare average risk to high risk**

\* Risk factors analyzed were smoking, dyslipidemia, and hypertension

*Diabetes Care* 12: 573-579, 1989





## Your Numbers

- **A1c – less than 7 (around 150 mg/dL)**
  - Yours – 9 (around 210)
- **Blood Pressure – 130/80 mm Hg or less**
  - Yours – 140/90 mm Hg
- **Cholesterol LDL – Less than 100 mg/dL**
  - Yours – 150 mg/dL

***Show patients their risk factors !***



# The A1C and Blood Sugar Levels

The A1C is a blood test you get at the doctor's office or health clinic. It shows:

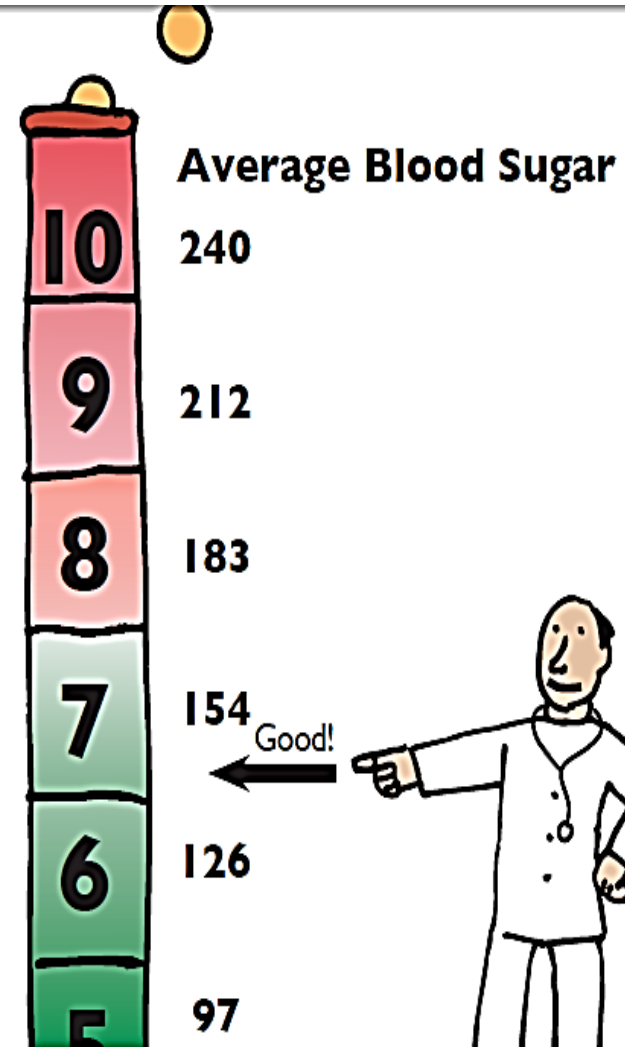
- Your average blood sugar level for the last 3 months
- Your risk (chance) of having other health problems because of diabetes

Why do I need it?

Your A1C test results are the best way to know if your blood sugar is under good control over time.

What is a good A1C number ?

7 or lower. You and your





## Provide Treatment Strategies

- **Ask**, *“What kind of oil do you cook with? What kind of spread do you use on your toast? What kind of dressing do you use?”*
- **Patient**, *“I cook with corn oil and sometimes olive oil. I use margarine or mayo. I don’t use salad dressing.”*
- **Answer**, *“Use small amounts (show spoon) of olive and canola oil.”*



# Counseling Tips

**What are  
you going to  
say?**

**What are you  
going to  
show?**

**What is the  
patient going  
to do?**



# Key Messages

- Choose whole grains
- Reduce:
  - Saturated fats and replace with polyunsaturated fatty acid (PUFA) and monounsaturated fatty acids (MUFA) —**not carbohydrates**
  - Sodium
  - Added sugars





# Whole Grains

- **What are you going to say?**

- Use risk communication

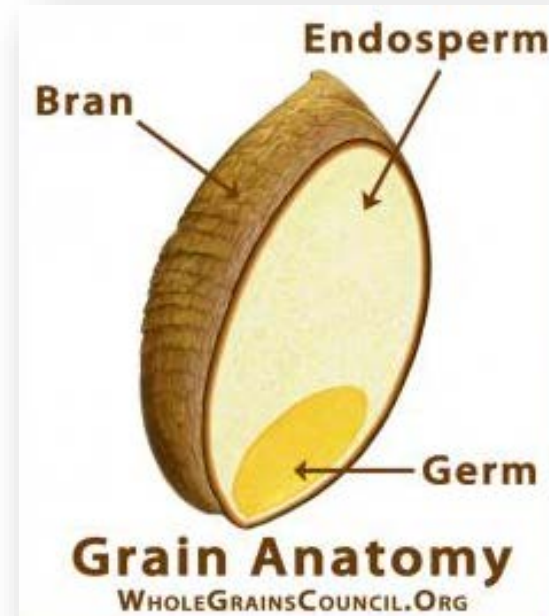
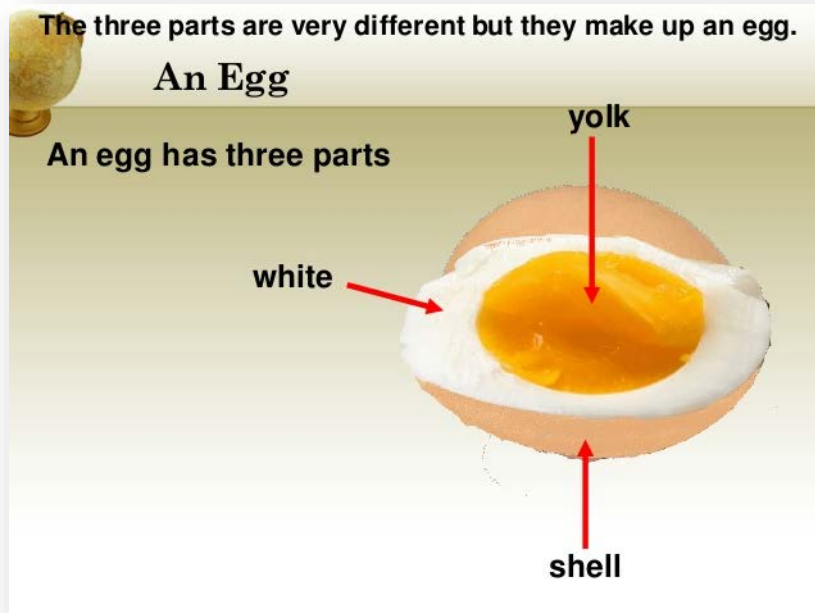
- Two-servings of whole grains reduced type 2 diabetes

*European Journal of Epidemiology. 2013 Nov; 28(11):845-58. (Aune D et al.)*

- Three-servings of whole grains, 36 percent lower risk of death from diabetes

*British Medical Journal. 2016 June 14;353. (Aune D et al.)*

# What Are You Going to Show?





# What is the patient going to do?

## Patient's foods

- Chicken
- **White Rice** Swap 
- Spinach salad
- Roll
- Water

## Whole grain ingredients

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Brown rice</li><li>• Buckwheat</li><li>• Bulgur</li><li>• Millet</li><li>• Oatmeal</li><li>• Popcorn</li><li>• Quinoa</li><li>• Rolled oats</li></ul> | <ul style="list-style-type: none"><li>• Whole-grain barley</li><li>• Whole-grain corn</li><li>• Whole-grain sorghum</li><li>• Whole-grain triticale</li><li>• Whole oats</li><li>• Whole rye</li><li>• Whole wheat</li><li>• Wild rice</li></ul> |
|---|--|



# What are you going to say?

- Saturated fats
  - Use risk communication
  - Compare goal with patient's result

↓ **Sat. Fats = May lower LDL from 150 to 135 mg/dL**



# What are you going to show?

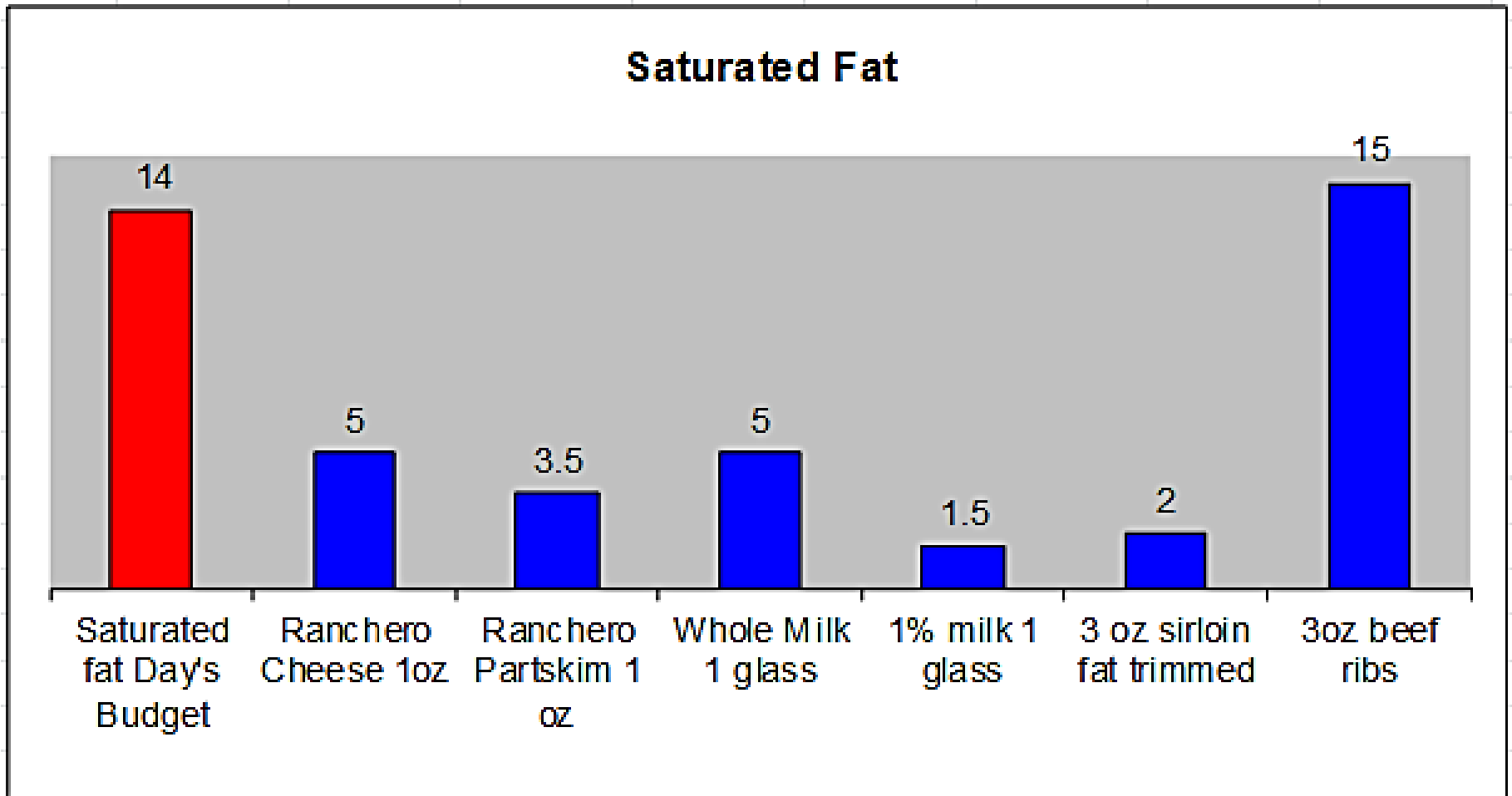
- Do you have these foods at home?
  - Butter
  - Cheese
  - Whole Milk
  - Ice Cream
  - Mayonnaise
  - Fatty Meats/Chicken with skin
- *¿Cuál de estos alimentos tiene en su casa?*
  - Mantequilla*
  - Queso*
  - Leche entera*
  - Helado*
  - Mayonesa*
  - Carnes con grasa/Pollo con piel*







# Saturated Fat





# What are you going to do?

## Patient's Foods

- T-bone steak (3g SF)
- Potato with ¼ cup shredded cheddar cheese (6g SF)
- Rice
- Spinach sautéed with olive oil →
- Fruit →

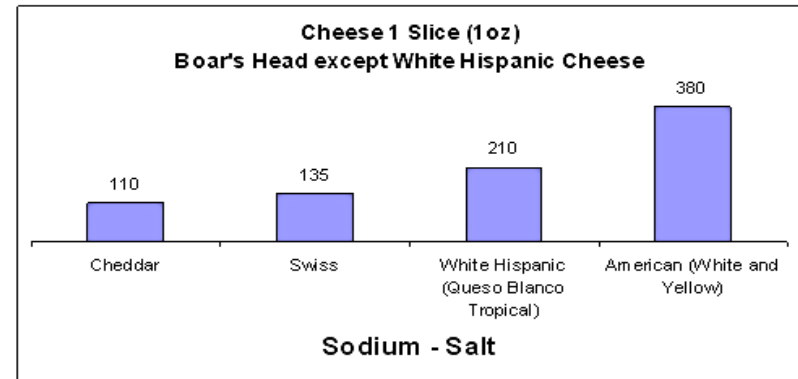
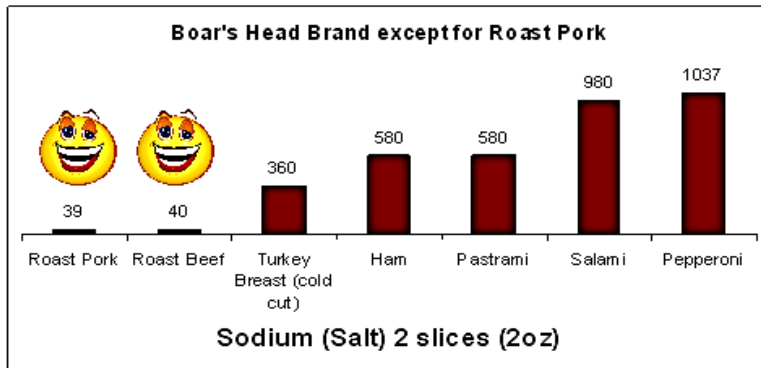
## Swap

- Chuck shoulder steak (1.9g SF)
- Potato with 1 tbsp. of sour cream (1.8g SF)
- Brown rice
- Spinach with olive oil
- Fruit

# Guide to a Better Sandwich in Your Favorite *Bodega* (Small Grocery Store)

## If you have High Blood Pressure

- Watch out for sodium or salt
- Turkey Breast Roll (cold cuts), not made fresh, Ham, Pastrami, Salami and Pepperoni are high in sodium
- Roast pork without added salt and roast beef are low in sodium



- If you add cheese to your sandwich, select one slice of low sodium cheese
- **TIP:** If you eat a high sodium sandwich for lunch, eat low-sodium foods the rest of the day. Fruits, vegetables, rice, pasta, beans, meats, chicken and fish are naturally low in sodium.

Season foods with garlic (not garlic salt), onions, oregano, lemon or lime instead of salt

- **DO YOU KNOW HOW YOU COULD LOWER YOUR BLOOD PRESSURE EVEN MORE?**
  - Follow the 4-4-3 rule. Eat 4 servings of fruit, 4 servings of vegetables and salads and 3 servings (3 glasses) of low-fat milk or yogurt every day
- **BEST CHOICE:** Lean Roast Pork or Roast Beef on Whole Wheat Bread



# How Do You Know Your Patients Know?

- Teach back

**Methods for ensuring that patients understand  
what you have told them**

**Ask patients to explain or demonstrate**

# Information = Education?







# Teach-Back

- Using your own words, tell me....
- I want to be sure I did a good job of showing you how to use the nutrition label. Can you show me how you will use it to calculate \_\_\_ ?
- Can you tell me in your own words how and when you need to use your glucose tablets?
- How would you describe your condition to a friend?
- Can you show me how many pills you would take each day?
- We covered a lot about carbohydrates and I want to make sure I explained things clearly. Can you review what we discussed?
- Using your own words, tell me your lunch selections using MyPlate.



# Knowledge Check

- **The amount of saturated fat for someone with diabetes should be:**
  - Individualized
  - Less than 10% of calories
  - Less than 30% of calories
  - Depends on triglyceride levels



# Knowledge Check

The amount of saturated fat for someone with diabetes should be:





# Summary and Application

*Potential for the guidelines to inform policy and practice is critical.*

- Less than optimal dietary patterns contributing directly to poor health and high chronic disease risk:
  - Low in vegetables, fruit, whole grains, and low-fat dairy
  - High in refined grains, saturated fat, added sugars, and sodium
- Critical health disparities
- Food insecurity
- Important role for people with diabetes: Access and education to improve control of diabetes and to contribute to the delay and prevention of type 2 diabetes



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**Q&A**

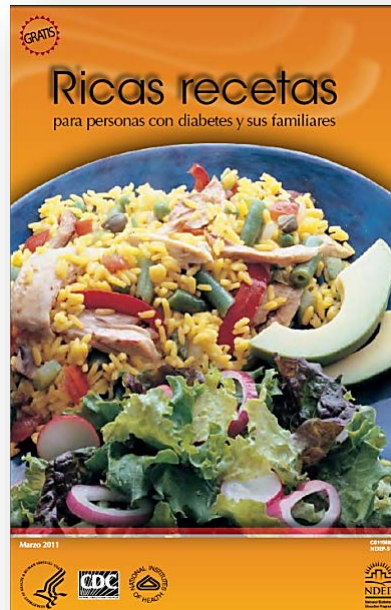




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# Stay Tuned!



**Control Your Diabetes.**

*It's more than food. It's Life.*

**Among the many ways to manage your diabetes, some of them might be waiting for you, right in your own kitchen!**

That's right. Food is the fuel that keeps everything working. The physical activity you do, the medications you take, and your blood glucose levels are all affected by how much and what you eat. You don't have to give up your favorite foods, just take small steps to eat better. Learn how much to eat, how often, and how to prepare the foods you love in a healthy way. To order your free *Tasty Recipes for People with Diabetes and Their Families* booklet, visit [www.ndep.nih.gov](http://www.ndep.nih.gov) or call 1-888-693-NDEP. The call is toll-free and confidential.

**Control your diabetes. With food. For Life.**

The U.S. Department of Health and Human Services' National Diabetes Education Program (NDEP) is jointly sponsored by the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) with the support of more than 100 partner organizations.

September 2008 • NDEP08

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## <http://www.cdc.gov/tceonline/>

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#### To complete online evaluation:

- Go to CDC TCEO at <http://www.cdc.gov/tceonline/>. Select **Participant Login** to login. If you are new to TCEO, select **New Participant** to create a user ID and password.
- Once logged on to CDC TCEO, the **Participant Services** page will display. Select the **Search and Register** link. Select a search method to locate the course and click on **View**.
- Click on the course name, and the course information page will display. Scroll down to **Register Here**. Select the type of CE that you would like to receive and then select **Submit**.
- The next page requests demographic information. New participants are required to answer the demographic questions. Returning participants please verify this information and select **Submit**.
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- Complete the evaluation and **Submit**. If a posttest is required it will follow the evaluation. A record of your course completion and your CE certificate will be posted in the **Transcript and Certificate** section, located on the **Participant Services** page.

If you have any questions or problems contact:

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Email at [ce@cdc.gov](mailto:ce@cdc.gov)  
1-800-41TRAIN



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**Thank you!**



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For more information call 1-800-CDC-INFO (800-232-4636)

TTY 1-(888) 232-6348 or visit [www.cdc.gov/info](http://www.cdc.gov/info).

To order resources, visit [www.cdc.gov/diabetes/ndep](http://www.cdc.gov/diabetes/ndep).

**Betsy Rodríguez**

[bjr6@cdc.gov](mailto:bjr6@cdc.gov)

(770) 488-5480





# Visit CDC NDEP Website

<http://www.cdc.gov/diabetes/ndep>

## National Diabetes Education Program



### ► Faith Leaders Toolkit

Bring information about type 2 diabetes prevention and management to your congregation and others



The National Diabetes Education Program (NDEP) works with partners to reduce the burden of diabetes and prediabetes by facilitating the adoption of proven approaches to prevent or delay the onset of type 2 diabetes and the complications of diabetes. NDEP is a joint program of the Centers for Disease Control and Prevention and the National Institutes of Health.

#### PARTNERING WITH NDEP

Learn about NDEP and find partnership resources.

#### WORKING IN COMMUNITIES

Find tools to help implement community programs.

#### WORKING IN HEALTH SETTINGS

Find resources to support team care.

#### TRAINING & TECHNICAL ASSISTANCE

Find webinars and courses to build your capacity.

#### FOR PEOPLE AT RISK FOR DIABETES

Find information on preventing type 2 diabetes.

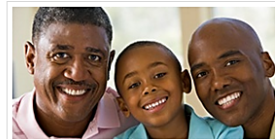
#### FOR PEOPLE WITH DIABETES

Find information on managing diabetes.

### FIND RESOURCES FOR SPECIFIC GROUPS



AMERICAN INDIANS & ALASKA  
NATIVES



AFRICAN AMERICANS & AFRICAN  
ANCESTRY



HISPANIC & LATINO AMERICANS



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