Your Health Matters: Nutritious Eating

TRAINER’S MANUAL

Free and reproducible materials for Community Health Workers to implement in local community education programs
The University of Texas Community Outreach Program
Community Health Worker Continuing Education

Your Health Matters: Nutritious Eating

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The University of Texas School of Public Health – Brownsville
Dr. Belinda Reininger  Lisa Mitchell-Bennett  Laura Dirkse  Vanessa Saldaña

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Dr. Nancy Crider  Dr. Nancy Murray  Jessica Uriarte
Dr. Linda Lloyd  Rosalia Guerrero  Caroline Vasquez

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Nathalie Sessions

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Sister Rosemary Welsh  Martha Martinez  Mirtha Trejo

Additional Content Advisors
Leticia Gomez with Migrant Health Promotion  Tony Ramos with Borderland AHEC
Lizette Pacheco with Migrant Health Promotion  Sydney Jones with UT Austin Public Health Internship

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Video Credits

Cast
Martie Di Gregorio  Melissa Millan  Dante Robledo
Chickie Samano  Stephan Schull

With appearances by
Miguel Robledo Sr.  Mark Vasquez

Scriptwriter
Jo Ann LeQuang

Camera/Lighting
Kurt Lang

Location Sound
Brian Albritton

Editor
Jeffrey Mills

Graphics
Barbara Mills

Production Manager
Nathalie Sessions

Production Assistant
Sydney Jones

Executive Producer
Dr. Belinda Reininger  Lisa Mitchell-Bennett  Dan Sessions

Additional Credits
Camille Lightener Playhouse
Julie Lara and the partners at H-E-B Brownsville Store #489
Kendra Stine and the staff of The University of Texas School of Public Health Brownsville Regional Campus

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Your Health Matters: Nutritious Eating
Knowledge Questionnaire

Energy Balance

1. If I take more calories IN to my body than I burn OUT, I will:
   a. Lose weight
   b. Gain weight
   c. Maintain my weight
   d. I don’t know.

2. When choosing healthy foods, I should eat:
   a. A variety of different foods
   b. The right amount of food from each food group
   c. Everything in moderation
   d. Foods that are rich in nutrients
   e. All of the above
   f. I don’t know.

Portion Distortion

3. The size of a soda bottle today is:
   a. Larger than a soda bottle 20 years ago
   b. Smaller than a soda bottle 20 years ago
   c. The same size as a soda bottle 20 years ago
   d. I don’t know.

4. It is important to consider portion size because:
   a. A smaller portion has more vitamins
   b. A smaller portion costs more money
   c. A smaller portion has fewer calories
   d. I don’t know.

Healthy Eating

5. A healthy diet has more:
   a. “GO” foods than “SLOW” foods or “WHOA” foods
   b. “SLOW” foods than “GO” foods or “WHOA” foods
   c. “WHOA” foods than “GO” foods or “SLOW” foods
   d. I don’t know.

6. A healthy meal has mostly:
   a. Meat
   b. Vegetables
   c. Grains
   d. Fats
   e. I don’t know.
Basic Nutrients

7. A healthy diet includes:
   a. Fats
   b. Carbohydrates
   c. Protein
   d. All of the above
   e. I don’t know.

8. Healthy sources of carbohydrates include:
   a. Fruits
   b. Vegetables
   c. Whole Grains
   d. All of the above
   e. I don’t know.

Food Labels

9. A Nutrition Facts label is on which of the following foods?
   a. Bananas
   b. Animal Crackers
   c. Broccoli
   d. All of the above
   e. I don’t know.

10. When reading the % Daily Value on a Nutrition Facts label, look for foods with:
    a. HIGH % Daily Values
    b. LOW % Daily Values
    c. LOW % Daily Values on the top of the label and HIGH % Daily Values
        on the bottom
    d. I don’t know.

Meal Planning

11. Buying healthy food always costs more than buying unhealthy food.
    a. True
    b. False
    c. I don’t know.

12. You should eat fruits and vegetables:
    a. Once a week
    b. Once a day
    c. At every meal
    d. Never. Fruits and vegetables are bad for you.
    e. I don’t know.
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<th>Answer</th>
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Welcome to the first edition of *Your Health Matters: Nutritious Eating!* We know that you will enjoy implementing these high quality materials produced specifically for Community Health Workers. Materials are aligned with Texas Department of State Health Services Community Health Worker core competencies.

Prior to implementation, we encourage you to review the guidelines and components carefully. Familiarity with the materials and format will help promote effective use.

**Community Health Worker Contact Hours and Core Competencies**

*Your Health Matters: Nutritious Eating* qualifies as 10.5 contact hours addressing the following core competencies:

- Communication 1.5 hours
- Service Coordination 0.5 hours
- Capacity Building 2.0 hours
- Teaching 0.5 hours
- Knowledge Base 6.0 hours

**Timeline**

The amount of time needed to implement *Your Health Matters: Nutritious Eating* will vary depending upon class period lengths. The timeline provides estimated instruction times for components. To meet the designated core competencies, components are designed to occur in the order presented in the timeline. As this may not always be possible or desirable, individual components such as videos and activities may be selected independently to suit your needs.

What follows is a summary of *Your Health Matters: Nutritious Eating Components* and *Instructional Strategies*. Please refer to individual components for detailed instruction. We highly recommend all instructions be read before implementation.

**Components**

**DVD and Instructor CD**

The *DVD* contains the *Content Video* (in English and Spanish). The *Instructor CD* includes a master PDF document with printed materials including *Instructor Information Sheets*, *Instructional Materials*, *Activities*, *Glossaries*, *Handouts*, and more.

The *Your Health Matters: Nutritious Eating Content Video* introduces key concepts and sparks questions. *Activities*, along with other materials, reinforce video content, adding depth to the concepts presented. Key terms are explained in the video and are often highlighted on screen to help viewers stay on track.
Instructor Information Sheets
Community Health Workers have a great deal of content to remember. With rapid advancements in science it is even possible you will have little background in some of the subjects you teach. Your Health Matters: Nutritious Eating provides cutting-edge health science research content that may be new for some instructors. Because of this, Instructor Information Sheets are included. This information is not necessarily intended for distribution to clients or class participants but rather to give you insight into the latest research developments and more confidence in teaching the material.

Activities
Activities take time, but instructors know that a well-organized activity has the greatest potential for learning that lasts. Your Health Matters: Nutritious Eating has been designed to provide opportunities for hands-on learning either individually, in small groups, or as a class. Activities are encouraged as an essential part of the learning process.

Estimated class time needed is indicated on each activity. When applicable, handouts are provided in the Appendix. Most activities follow this format:

- Objective
- Equipment Needed
- Materials Needed
- Preparation
- Presentation

Activities may require materials not contained in this training module, but are usually items accessible at low cost. Presentation steps may be detailed, but can certainly be adapted to fit your own teaching style.

Glossary of Terms
Your Health Matters: Nutritious Eating presents nutrition-related terms that may be new for many individuals so a glossary of terms is included.

Additional Resources
The field of nutrition is evolving. Therefore, the number of resources available (particularly on the Internet) seems endless. The List of Additional Resources document provided is a listing of select web sites that feature resources for instructors about the topics covered in Your Health Matters: Nutritious Eating.

Additional Presentations for Home Visits
Also included on the Instructor CD and the Participant Handbook CD is a folder containing seven Home Visit presentations (listed below). These presentations are designed as suggested home visit plans for Community Health Workers and take advantage of non-directive motivational approaches.

- Diabetes Knowledge
- Eating Fruits & Vegetables
- Healthy Portions
- Hypertension & Your Health
- Living an Active Lifestyle
- Your Health Matters
- Understanding Cancer
Instructional Strategies

Your Health Matters: Nutritious Eating attendees will leave with an understanding of why proper nutrition and regular physical activity are important for a healthy life. The training will demonstrate how eating right and exercising regularly helps to reduce a person’s risk for chronic diseases such as heart disease, diabetes, and cancer. Participants will be able to discuss the causes of the growing obesity epidemic in the United States, make healthy food choices and counsel clients about meal planning and food shopping based on the GO-SLOW-WHOA concept. Participants will also gain skills in reading Nutrition Facts Food labels and how to eat healthy on a budget. Materials complement Your Health Matters: Fitness for Life.

The Parking Lot

Many times during the course of discussion or activities, clients/class participants will ask questions that may be inappropriate to answer at that particular moment. A participant may even ask a question for which the instructor doesn’t know the answer. These questions are perfect for the Parking Lot. The Parking Lot is a large space of highly visible chalkboard/whiteboard off to the side of the front of the classroom. When participants ask questions that are especially insightful or unanswerable at the moment they are asked, write the question on the board with a check-box in front of it.

Throughout the instruction, many questions will be answered; others will not. As questions are answered, place a check-mark beside them.

The Your Health Matters: Nutritious Eating is interesting and exciting! It is intended to spark questions and provoke thought. Undoubtedly, there will be questions that go unanswered even after the material is presented. Unanswered questions can be handled in a variety of ways: invite clients to spend a library day researching or offer incentives for each answer a class participant finds and is willing to present to the class. If your class has Internet access, set aside time to visit web sites listed in this module’s Additional Resources section or develop a strategy to match your unique teaching style.

Participants who learn to ask questions and seek out answers are those who become life-long learners. Your Health Matters: Nutritious Eating encourages this level of critical thinking to help inspire healthy individuals and families.

Get them Moving

The Your Health Matters: Nutritious Eating material is not passive. Class participants are expected to participate in large and small group settings. The instructor's role is different from the traditional “chalk and talk” methods popular years ago. The Your Health Matters: Nutritious Eating instructor is a facilitator between participants and the knowledge. Much of the direct instruction is handled by concepts presented in the video. The instructional material reinforces learning and encourages further discovery. “Get them moving” simply means that participants shouldn’t be sitting still for too long—get them talking, get them volunteering, get them involved in a hands-on activity; get them doing anything but sitting still!
Validation
Everyone needs to know there are no stupid questions. Participant responses deserve positive feedback, and so do their questions. Participants will learn far more effectively from what they discover on their own than by what instructors simply tell them.

It is perfectly acceptable to let participants know that you do not always have the answers. Learning, for both instructors and class participants, is most rewarding when it is about discovery. We learn more every day and no one has all the answers.

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Links to Internet sites are included only for the convenience of World Wide Web users. The University of Texas Community Outreach Program is not responsible for the availability or content of these external sites, nor does the project endorse, warrant or guarantee the products, services or information described or offered at these other Internet sites.

It is not the intention of Your Health Matters: Nutritious Eating to provide specific medical advice, but rather to provide users with information to better understand health. Specific medical advice will not be provided. Program developers urge you to consult with a qualified physician for diagnosis and for answers to personal questions.

Contact Us
If you have any questions or feedback about Your Health Matters: Nutritious Eating please contact us.

Belinda Reininger, DrPH
Co-Director, University of Texas Community Outreach Program
The University of Texas School of Public Health, Brownsville
Belinda.M.Reininger@uth.tmc.edu
(956) 882-5161

Lisa Mitchell-Bennett, MA, MPH
Senior Research Associate/Project Director
The University of Texas School of Public Health, Brownsville
Lisa.Mitchell-Bennett@uth.tmc.edu
(956) 882-5183
# Your Health Matters: Nutritious Eating

Timeline for Pre/Post Tests, Presentations, Videos and Activities*

*Revised August 2011*

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<th>Component</th>
<th>Estimated Time in Minutes</th>
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<td>Presentation: Why Are We Here?</td>
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<td>Activity: Build-A-Meal</td>
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<td><strong>THE BASIC NUTRIENTS</strong></td>
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<td>Activity: Fiber Line-up</td>
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<td><strong>UNDERSTANDING THE NUTRITION FACTS LABEL</strong></td>
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<td>Activity: Food Fights!</td>
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<td>Activity: Plan Your Plate</td>
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<tr>
<td>Bonus! Presentation: Healthy Cooking Tips</td>
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<td><strong>CONCLUSION</strong></td>
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<td>Presentation: Diabetes Online Risk Assessment &amp; Activities</td>
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<td>Activity: Diabetes Poster/Brochure</td>
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*Refer to Table of Contents for additional items included in this module.
Your Health Matters: Nutritious Eating

Introduction
Administer Knowledge Questionnaire designated on colored paper for pre-training assessment.
Nutritious Eating Program Goals

**Expand** understanding about why proper nutrition is important for a healthy life.

**Demonstrate** how eating right helps reduce risk for chronic diseases.

**Empower** participants to make healthy food choices and counsel clients with meal planning strategies.

**Provide** a curriculum which gives Community Health Workers the knowledge and skills about nutritious eating to impart to their communities.

This curriculum provides the nutrition component to compliment the *Your Health Matters: Fitness for Life* curriculum.
Nutritious Eating Learning Objectives

- Describe the obesity epidemic and its implications to health.
- Describe how the energy balance influences healthy weight maintenance or weight loss.
- Give three examples of how food portions have changed in the past 20 years and the implications of these changes.
- Recognize the Go-Slow-Whoa concept and give an example of each type of food.

More…
Your Health Matters: Nutritious Eating

Introduction

Nutritious Eating
Learning Objectives

- Identify the six basic nutrients.
- Explain the Nutrition Facts food labels and state the low and high percentages for the daily values.
- Plan a healthy meal.
## Nutritious Eating

### Program Materials CD

*PowerPoint Presentations, Handouts, Information Sheets and Activities*

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<td>Post Knowledge Questionnaire</td>
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<td>Why Are We Here?</td>
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<td>The Nutrition Facts Label</td>
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<td>Meal Planning</td>
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How prepared do you feel to educate people about healthy food choices?

0 1 2 3 4 5 6 7 8 9 10
So why are we here? ...
Obesity is an Epidemic

#1 health problem facing American children

A critical public health problem

A defining public health challenge for the next half-century

The most challenging public health problem ever faced
What is Obesity?

According to the Centers for Disease Control and Prevention, obesity is a label for a range of weight that is greater than what is generally considered healthy for a given height.
### Adult Overweight & Obesity

**Body Mass Index (BMI)**

**DEGREE OF BODY FAT BASED ON HEIGHT AND WEIGHT**

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**For adults 20 years and older**

- **Overweight**
  - BMI of 25 to 29.9
- **Obese**
  - BMI of 30+
- **Extremely Obese**
  - BMI of 40+

For adults, overweight and obesity ranges are determined by using weight and height to calculate a number called the "body mass index" (BMI). BMI is used because, for most people, it correlates with their amount of body fat.

An adult who has a BMI between 25 and 29.9 is considered overweight.

An adult who has a BMI of 30 or higher is considered obese.

**HANDOUT: BMI Table – ask everyone to identify their own BMI privately**
For children, BMI is used to screen for obesity, overweight, healthy weight, or underweight. However, BMI is not a diagnostic tool. For example, a child may have a high BMI for age and sex, but to determine if excess fat is a problem, a health care provider would need to perform further assessments. Although the BMI number is calculated the same way for children and adults, the criteria used to interpret the meaning of the BMI number for children and teens are different from those used for adults. For children and teens, BMI age- and sex-specific percentiles are used for two reasons:

1) The amount of body fat changes with age.
2) The amount of body fat differs between girls and boys.

The CDC BMI-for-age growth charts take into account these differences and allow translation of a BMI number into a percentile for a child's sex and age. For adults, on the other hand, BMI is interpreted through categories that do not take into account sex or age.
Your Health Matters: Nutritious Eating

Introduction

Why Do We Care?

Obesity is a major risk factor for:

• Cardiovascular disease
• High total cholesterol
• High blood pressure
• Type 2 diabetes
• Stroke
• Liver disease
• Gall bladder disease
• Certain cancers
• Osteoporosis

Staying at a healthy weight is important to lower the risk of cancer and other chronic diseases, like heart disease and diabetes. Being overweight or obese increases the risk of several cancers, including cancers of the breast (in women past menopause), colon, endometrium, esophagus, kidney, and others. Being obese may also increase risk of other cancers: cervix, gallbladder, Hodgkin lymphoma, multiple myeloma, ovary, pancreas, thyroid, and aggressive forms of prostate cancer.

According to the American Cancer Society, approximately 570,000 Americans die of cancer every year. A complete third of these deaths are linked to poor diet, physical inactivity, and carrying too much weight. One of the main ways being overweight can increase cancer risk is that excess weight causes the body to produce and circulate more of the hormones estrogen and insulin, which can promote cancer growth.

Research has shown that poor diet and not being active are two key factors that can increase someone’s risk for cancer. Aside from quitting smoking, important things you can do to help lower your cancer risk (and lower your risk for chronic diseases) are:

• Get to and maintain a healthy weight.
• Be physically active regularly.
• Make healthy food choices.
Behavioral Risk Factor Surveillance System (BRFSS)
Obesity Trends Among U.S. Adults
BRFSS, 1986

[Map showing obesity trends among U.S. adults in 1986]

Centers for Disease Control and Prevention
Your Health Matters: Nutritious Eating
Introduction

Obesity Trends Among U.S. Adults
BRFSS, 1987

Centers for Disease Control and Prevention

No Data  <10%  10%–14%
Obesity Trends Among U.S. Adults
BRFSS, 1988

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 1989

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 1990

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 1991

[Map of the United States showing obesity trends among U.S. adults.]

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 1994

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 1995

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 1998

[Map of the United States showing obesity rates among adults.]

Source: Centers for Disease Control and Prevention
Introduction

Obesity Trends Among U.S. Adults
BRFSS, 2003

[Map showing obesity trends among U.S. adults]

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 2004

[Map showing obesity trends among U.S. adults]

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 2005

No Data <10% 10%-14% 15%-19% 20%-24% 25%-30% 30%-34%

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 2006

No Data
<10%
10%-14%
15%-19%
20%-24%
25%-29%
30%-34%

Centers for Disease Control and Prevention
Introduction

Obesity Trends Among U.S. Adults
BRFSS, 2007

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 2008

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 2009

Centers for Disease Control and Prevention
Obesity Trends Among U.S. Adults
BRFSS, 2010

Centers for Disease Control and Prevention
66% of all Americans are **overweight** with a BMI above 25

- = Healthy Weight
- = Overweight

Ogden et al, 2006
Centers for Disease Control and Prevention, 2010
29% of all Americans are **obese** with a BMI above 30

- = Healthy Weight
- = Overweight
- = Obese

Ogden et al, 2006
Centers for Disease Control and Prevention, 2010
5% of all Americans are extremely obese with a BMI above 40

- White = Healthy Weight
- Light Gray = Overweight
- Dark Gray = Obese
- Black = Extremely Obese

Opden et al, 2006
Centers for Disease Control and Prevention, 2010
Adult Obesity By Race

For Non-Hispanic Black Americans - 36% are obese

For Hispanic Americans - 29% are obese

For Non-Hispanic White Americans - 24% are obese

If current childhood obesity trends continue, this will be the first generation to have a lower life expectancy than their parents. Just like with adult obesity, a major contributing fact to childhood obesity is consuming more calories than using more calories. The imbalance between calories consumed and calories used can result from influences and interactions of several factors (including genetic, behavioral, and environmental factors). It is the interactions among these factors – rather than any single factor – that is thought to cause obesity.

NOTE: Obesity defined as body mass index (BMI) greater than or equal to sex- and age-specific 95th percentile from the 2000 CDC Growth Charts.

(Continue to next slides for more)
NOTE: Obesity defined as body mass index (BMI) greater than or equal to sex- and age-specific 95th percentile from the 2000 CDC Growth Charts.
Adult Obesity in Texas

2008 Estimates of the Percentage of Adults Age ≥20 Who Are Obese in Texas

- Cameron County (Brownsville) – 26.7%
- Galveston County (Galveston) – 27.2%
- Nueces County (Corpus Christi) – 27.7%
- Webb County (Laredo) – 28.2%

Centers for Disease Control and Prevention: National Diabetes Surveillance System
What are the health problems created by obesity?

Ask for audience participation
Childhood and adult obesity have many serious consequences:

**Physical Health**
- Glucose intolerance
- Insulin resistance
- Type 2 diabetes
- Hypertension
- Dyslipidemia
- Hepatic steatosis
- Cholelithiasis
- Sleep apnea
- Orthopedic problems

**Emotional Health**
- Low self-esteem
- Negative body image
- Depression

**Social Health**
- Stigma
- Negative stereotyping
- Discrimination
- Teasing and bullying
- Social marginalization
Why do we “eat ourselves to death”? 🤔
Because we can
We Evolved to Survive Famine, Not to Stay Thin During Times of Plenty

Humans:
Innately prefer sweet foods
Will eat more when there are a variety of flavors available.
Eat more when larger portions are served
Infants quickly learn to prefer flavor of high fat and salty foods
How did we get here?

- Not a simple question
- Many factors make the complexity clear
- Most simple answer:
  - Eating more
  - Moving less
  - Treatment mostly ineffective
Eating and exercise environments that contribute to overweight, including:

- Availability and affordability of high fat and high carbohydrate food (fast food, soft drinks)
  - Large portion sizes
  - Marketing to children
  - Fewer family meals
Introduction

Toxic Environment

Cradle to Grave Marketing

Note: Image is a mock-billboard with an infant “nursing” a hamburger bun.
Toxic Environment:
Junk Food as Early Education
Toxic Environment: Conflicting Messages

Childhood obesity. Don't take it lightly.

Food Stamps can help. Call 1-888-328-3483 to see if you qualify.

my kinda shoppin' spree

Dollar 77 Menu
Toxic Environment: Food Advertising

- Food, beverages, candy: $7,313,200,000
- Restaurants and fast food: $5,061,000,000

Advertising Age, June 26, 2009 Special Report
Okay, so we’re going to quiz you now. Read question, read options one at a time allowing people to vote for the answer they think is correct.

Then, post answer and comment that most research shows that portion size is the most influential factor – flip to next slide to continue comments.
Eating Behaviors

What is the most influential factor that determines how much children and adults eat?

A. Hunger
B. Mood
C. Portion Size
D. Time of Day

C. PORTION SIZE

Okay, so we’re going to quiz you now. Read question, read options one at a time allowing people to vote for the answer they think is correct.

Then, post answer and comment that most research shows that portion size is the most influential factor – flip to next slide to continue comments.
Another study to talk about: refilling soup bowl study. A study had a group of people come into a room with tables that had table cloths on them and eat soup. They all rated their level of hunger about the same before starting. All the tables had soup bowls on them that were attached to the table. One side had regular soup bowls. The other side had small tubes in the bottom of their bowls that slowly refilled the soup as they ate. When they finished, everyone rated their satiety (level of fullness) about the same, but the folks with the refilling bowls consumed 75% more soup. They just kept eating because it was there.
Introduction

What used to be a basic, regular meal is now the size of a Happy Meal. Do y’all remember when you went to McD’s and you got a regular burger, fries and a drink? Well, that was about 590 calories. Now, you walk into McD’s and you have the menu board with all the “Value Meals” displayed, and those meals are almost 3 times as many calories.

McD’s and other places have started to offer more “healthy” alternatives. Review information about “Go Active Happy Meal”.

Optional note: McD’s only generates ~2.4% of their total revenues through their healthier fare (e.g., people say they want healthier options, but that’s not what they are buying).
Your Health Matters: Nutritious Eating

Introduction

We know most folks are eating out more and more nowadays and when we go out what do we see . . . It’s what we call “portion distortion”.

These are the beverage size options for drinks purchased at 7-11. Notice that the smallest cup is still two serving sizes (1 serving = 8 oz.). The largest drink if you didn’t put in any ice would be about 776 calories (not a diet drink). If you measured out the sugar in a 64 oz. drink, it comes out to over a cup of sugar (actually it’s 1 and 1/8ths Cup of raw sugar).

But, why would you get the small size when for 5 cents more (or in some places all sizes are the same price) you can get the Double Big Gulp?!?
If you’re a visual person. . . Here are some actual photos comparing the change in portion sizes over the years.

Review and comment on pictures and calorie content.
But, wait . . . There is good news – if you eat all the popcorn you can go back and get a free refill!!
• Every day, children ages 8 to 13 spend nearly six hours watching TV, playing video games or spending time on a computer for entertainment. Two-thirds of youth have a TV in their room, and those kids spend another one and a half hours watching TV than their peers.

• The Nielsen Company reports that in 2009 US adults age 35 to 49 spend an average of 38 hours each week watching TV and six and a half hours each week on the Internet.

• The more time spent in front of the screen, the more likely you are to be overweight. Plus, children aren't getting the recommended 60 minutes of daily physical activity; adults aren't getting the recommended 30 minutes most days.

• Health experts say **screen time at home should be limited to two hours or less a day**, unless it’s work- or homework-related. The time we spend in front of the screen could be better spent being more physically active (increasing ENERGY OUT), and setting a good example for our families.

NOTE: Screen Time is discussed more in the *Fitness for Life* module
"On a scale of 0-10, how important is it to plan and eat fresh fruits and vegetables and whole grains?"

**HOW IMPORTANT IS IT?**

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Not important at all | | | | | | | | | | | Very important

**Instructions:**
Community Health Workers can help bring about change with health promotion.

Let’s begin!
Your Health Matters: Nutritious Eating

Energy Balance

CALORIES IN
Food
Beverages

CALORIES OUT
Body functions
Physical Activity
Instructor Information Sheet: Nutrition

Instructor Information Sheets are included to provide current information and more confidence in teaching the highlighted subject. The information is not necessarily intended for distribution to clients but certainly may be at the instructor’s discretion.

Proper nutrition and regular physical activity are important for a healthy life. Eating right and exercising regularly helps to reduce a person’s risk for chronic diseases such as heart disease, diabetes, and cancer. According to the Centers for Disease Control and Prevention, poor diet and physical inactivity lead to more than 300,000 deaths each year—second only to tobacco use.

Every five years, the United States Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS) provide the American public with nutritional advice about what they should eat to stay healthy. These dietary guidelines are the basis for the food guide pyramid, which divides food up into six different groups, based on the major type of nutrition that each food group provides, although most foods provide a combination of nutrients to the body.

The Food Guide Pyramid that was developed in 1992, was replaced by the MyPyramid Food Guidance System in 2005 to reflect the 2005 Dietary Guidelines for Americans into individualized, detailed assessments of food intake and physical activity level. MyPyramid strives to assist individuals to make smart choices from every food group, find balance between food and physical activity, and get the most nutrition out of the foods they eat.

In 2011, MyPlate was introduced along with the 2010 Dietary Guidelines for Americans to help serve as a reminder for healthy eating using a familiar mealtime visual—a place setting.

A large number of educational materials based on MyPyramid are available and in use. These materials can be used in conjunction with the new MyPlate icon. The information about what and how much to eat has not changed—both MyPyramid and MyPlate are illustrations that are based on the same food groups and recommendations about what and how much to eat. The ChooseMyPlate.gov Web site contains much of the same information that was available on MyPyramid.gov. Some sections of the Web site have been updated to reflect the 2010 Dietary Guidelines, and other sections continue to be updated. A completely redesigned Web site and new interactive tools are to be published in the fall of 2011.

There are four main themes to help people use the Dietary Guidelines:

- **Variety** - Eat foods from all food groups and subgroups.
- **Proportionality** - Eat more of some foods (fruits, vegetables, whole grains, fat-free or low-fat milk products), and less of others (foods high in saturated fats, added sugars, cholesterol, and salt).
- **Moderation** - Choose forms of foods that limit intake of saturated or trans fats, added sugars, cholesterol, salt, and alcohol.
- **Activity** - Be physically active every day.
The key messages for the 2010 Dietary Guidelines are:

**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 grains.
- Switch to fat-free or low-fat (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.

There are also tips to help with the food groups:

**Grains — Make half your grains whole.**
Eat more whole grain varieties of cereals, breads, crackers, rice, and pasta.

**Vegetables — Vary your veggies.**
Eat more dark green veggies like broccoli, spinach, and leafy greens.
Eat more orange veggies like carrots and sweet potatoes.
Any vegetable or 100% vegetable juice counts as a vegetable.
Vegetables may be raw, cooked, fresh, frozen, canned, or dried.

**Fruits — Focus on fruits.**
Eat a variety of fruits.
Drink no more than 6 ounces of 100% fruit juice per day.
Any fresh, canned, frozen, dried fruit or 100% fruit juice counts as a fruit.

**Dairy — Get your calcium-rich foods.**
Choose low-fat or fat-free options when you consume milk, yogurt, and other milk products.
If you don’t or can’t consume milk, choose lactose-free products or other calcium sources, such as fortified foods and beverages.

**Protein — Go lean with protein.**
Choose low-fat or lean meats and poultry.
Bake, broil, or grill instead of fry.
Vary your protein routine. Choose more fish, nuts, and seeds. Eat more dry beans and peas like pinto beans, kidney beans, and lentils.
Oils
Choose fats from sources of monounsaturated and polyunsaturated fatty acids, such as fish, nuts, seeds, and vegetable oils.

Each group contains a wide range of servings so that all kinds of people can use it as a guide that can fit easily into every type of diet and lifestyle. Just remember to use the basic guidelines of variety, proportionality, moderation, and activity . . . and enjoy!

See Appendix for ChooseMyPlate handouts

Acknowledgement and Information Source:
Edited by Nathalie Sessions, The University of Texas Health Science Center at Houston
Written by Heather Hochberg-Garrett, MPH, RD, LD, The University of Texas Health Science Center at Houston
ChooseMyPlate Web site: www.choosemyplate.gov
MyPyramid web site: www.mypyramid.gov
Calories are another word for energy – they are the energy provided by food.

Your energy balance is the balance of calories consumed through eating and drinking compared to calories burned through physical activity. What you eat and drink is ENERGY IN. What you burn through physical activity is ENERGY OUT.

You burn a certain number of calories just by breathing air and digesting food. You also burn a certain number of calories (ENERGY OUT) through your daily routine. For example, children burn calories just being students—walking to their lockers, carrying books, etc.—and adults burn calories walking to the bus stop, going shopping, etc.
A calorie is defined as a unit of energy supplied by food. A calorie is a calorie regardless of its source. Whether you're eating carbohydrates, fats, sugars, or proteins, all of them contain calories.

When it comes to counting calories, there's no magic trick, rather it's simple math. A good mind-set for approaching calorie control is to think of the calories you consume and the calories you burn as your calorie budget. How do you want to “spend” those calories? (click to next slide for more)
--Maintaining your weight in a healthy range requires a balance between the calories you take in through food and drink and the calories you burn through physical activity.

--To lose weight: Consume fewer calories than you burn each day. Either cut back on the calories you consume, exercise more or do both.

--To gain weight: Tip the balance the other way. Take in more calories than your body uses. However, your body still needs physical activity to remain healthy, so keep moving.

Note that it says “OVER TIME” – these effects don’t happen over night; takes time -- Your ENERGY IN and OUT don't have to balance every day. It's about having balance over time that will help you stay at a healthy weight for the long term. Maintaining a health weight is important since being overweight or obese is a major risk factor for conditions such as diabetes. (See next slide for more on weight loss)
Calorie needs to maintain weight vary per person.

**VERY IMPORTANT NOTE:** Everyone’s needs are very different based upon on sex, age, weight, height, activity level, health conditions and other factors.

**HANDOUT:** Estimated Calorie Requirements

Let’s look at a couple of examples… (on next two slides)

**Note to trainer:** If you get questions about ranges, here are some GENERAL figures, but again, everyone’s needs are different! Figures pertain to maintaining weight; not weight loss. In general, the Institute of Medicine says the estimated amounts of calories needed to maintain energy balance (and a healthy body weight) are (start clicking to reveal images):

- children ages 4 to 8 (sedentary–moderately active): 1200-1600; children ages 9 to 13 (sedentary–moderately active): 1600-2200
- adult females ages 19 to 30 (sedentary–moderately active): 2000-2200; adult males ages 19 to 30 (sedentary–moderately active): 2400-2800
- adult females ages 31 to 50 (sedentary–moderately active): 1800-2000; adults males ages 31 to 50 (sedentary–moderately active): 2200-2600
- older adult females ages 51+ (sedentary–moderately active): 1600-1800; older adult males ages 51+ (sedentary–moderately active): 2000-2600
Calories IN to maintain weight:
Different for each person

Example 1
Sedentary
45 year-old female
5'5" 135 pounds
BMI = 22.5

Calories needed per day: **1,800**
to maintain current weight
Almost same height and weight as previous example, but different age and activity level.
Here is another example – an active young male.
The previous examples represent individuals maintaining a healthy weight.

Here is another example, but one with a moderately active female who is overweight. To stay at her current weight (staying overweight) she would need to consume 1,800 calories per day. To lose weight, she would need to consume less calories and increase activity.

Since most people are overweight or obese, let’s switch focus now to healthy weight loss (click to next slide)
Since so many people are overweight or obese, let's discuss the healthy way to lose weight. It’s important to think about calorie balance because your body stores most of the excess calories you consume as fat. Just 100 extra calories a day adds up to 10 pounds in a year.

- First, understand that 3,500 calories = 1 pound
- Second, a healthy weight loss is one to two pounds per week (with an overall goal of losing 5-7% of your total body weight).
- Rapid weight loss is not recommended, unless under the care of a physician for special circumstances

(Continue to next slide)
So this means to lose a pound per week you need to cut and/or burn 3,500 calories EVERY WEEK (which is cutting 500 calories per day) and for a two-pound weight per week weight loss, cut and/or burn 7,000 calories EVERY WEEK (or cut 1,000 calories per day), until you reach a healthy weight (then you work on maintaining a healthy weight).

To find these 3,500 to 7,000 calories it is most necessary to modify your food choices. Avoid “empty calories” – not all foods are equal – even if they have the same number of calories some have more nutrients than others. Make small changes like:

- Start your day off with breakfast (more about this on next two slides)
- Whole grains, fruits, and vegetables are usually low in calories
- Pay attention to portions – while counting calories is important, if you focus on portions, calories tend to take care of themselves.
- Make small changes
  - Replace soda with water with the occasional 100% juice
  - Replace sugary snacks with fruits
  - Enjoy one less hamburger per week

And get moving! You can burn more calories through physical activity. The great thing about adding activity to the equation is all the additional health benefits.
Breakfast is Important

- Studies show eating breakfast is a strategy for long-term weight loss, along with physical activity and eating a diet low in calories and fat.
- Eating early in the day jump-starts your metabolism.
- Eating breakfast helps improve strength and endurance, attitude toward work/school, blood sugar level, and helps prevent hunger and overeating later in the day.

Healthy Breakfast Ideas

**Instant oatmeal with milk instead of water, raisins, chopped walnuts**
Low-fat yogurt with crunchy cereal and sliced fruit or berries

**Toaster waffle topped with low-fat yogurt and fruit**
Whole-wheat pita stuffed with sliced, hard-boiled egg, low-fat cheese

**Tortilla with peanut butter and half banana**
Granola bar, apple, glass of milk

**High-fiber, multigrain cereal, strawberries, low-fat milk**
Lean ham, low-fat Swiss cheese on a toasted whole-grain English muffin

**Leftover rice mixed with low-fat yogurt, dried fruit, nuts and cinnamon**
Deli turkey, slice of low-fat cheese and lettuce wrapped in a tortilla

**Smoothie made with berries, ice, and low-fat milk or yogurt**
What is a healthy weight?

Healthy weight is one where your BMI (height for weight) is between 19 and 24.

So what is a healthy weight?
Refer back to your BMI table from the Introduction presentation…

For adults, a healthy weight is one where your BMI – height for weight – is between 19 and 24.

BMI below 18.5 is underweight
BMI 18.5 – 24.9 is normal
BMI 25.0 – 29.9 is overweight
BMI 30.0 and above is obese
How do we know what healthy food choices to make? One way is by following the *Dietary Guidelines for Americans* which has been published jointly every 5 years since 1980 by the Department of Health and Human Services (HHS) and the Department of Agriculture (USDA). The 2010 Guidelines provide advice for people two years and older about how good dietary habits can promote health and reduce risk for major chronic diseases.

In 2011, *MyPlate* was introduced along with the 2010 Dietary Guidelines to help serve as a reminder for healthy eating using a familiar mealtime visual—a place setting. The information about what and how much to eat has not changed from MyPyramid which most people are familiar with—both MyPyramid and MyPlate are illustrations based on the same food groups and recommendations about what and how much to eat. The ChooseMyPlate.gov Web site has much of the same information that was available on MyPyramid.gov, with information updated to reflect the 2010 Dietary Guidelines, and other sections and interactive features will be available in the fall of 2011. Two handouts are included in your Participant Handbook.

To help people use the Guidelines, key concepts emphasized are:

- **Variety**
- **Balance**
- **Moderation**
- **Nutrient Density**

Let’s take a closer look at these concepts…
Variety – eat different varieties of foods within each food group – eat a rainbow everyday

Fruits, Vegetables, Whole Grains, Meats & Beans, Dairy, Oils/Fats
**Balance** or proportionality – eat the right amount within each food group

Watch portion sizes!
Moderation

Eat mostly fruits, vegetables, and whole grains. Limit fat and sugars.

**Moderation** – don’t consume too much of a particular type of food

Eat mostly whole grains, vegetables, fruits, and lean meats/protein

Limit fats and added sugars
Nutrient Density – ratio of nutrients in a food compared to its calories

Choose nutrient-dense (rich in nutrients) versus empty calories which are items that are calorie dense
Many of us may not have the time or resources for “exercise” but do get a lot of household/transportation or job-related “physical activity.”

Remember:

**Exercise** refers to physical activity that is structured, planned, and regular.

**Physical Activity** is bodily movement that expends energy – unstructured activity

The key concepts emphasized in the Dietary Guidelines for Americans are: “FITT”

- **Frequency**
- **Intensity**
- **Time**
- **Type**

Let’s discuss each briefly…
Energy Balance

Frequency
How often you are physically active

Centers for Disease Control and Prevention, National Heart Lung and Blood Institute
Intensity – your level of exertion during physical activity – how hard you push yourself
Your Health Matters: Nutritious Eating
Energy Balance

Calories OUT: Activity Guidelines

**Time**

*How long you are physically active*

Adults: At least 30 minutes most days – at least 10 minutes at a time
Children: At least 60 minutes per day

*Time* – amount of time you spend being active

The CDC recommendation is for at least **30 minutes most days for adults** for at least 10 minutes at a time and **60 minutes every day for children**
Type – the kind of activity you are doing

aerobic: with moderate intensity activity your heart rate and breathing both go up but you can still carry on a conversation; with vigorous activity it’s difficult to carry on a conversation (special notes: these effects shouldn’t be confused with symptoms of a heart attack!)

strength training: tones and builds muscle –

We will discuss types of activity more later.
Many of us may not realize how much we’re eating or how active we are. To learn how many calories you are currently eating, begin writing down the foods you eat and the beverages you drink each day. Research shows that by writing down what you eat and drink, you become more aware of everything you are putting in your mouth which can help with weight loss goals.

Also, begin writing down the physical activity you do each day and the length of time you do it. You can use the CDC Diaries to help you keep track.

NOTE: Both diaries are provided in Appendix as handouts

Make small changes and remember to:
- Set achievable goals in a reasonable timeframe
- Build in non-food rewards like new tennis shoes or fun time with your family
- Plan rest stops
- Expect detours and roadblocks

Tip for use with your clients:
Award stickers for consuming more fruits and vegetables
The Bottom Line…

Eat Less + Move More!
With all this talk about needing to move more… let’s move with a short activity break!
(Conduct activity per instructions provided)
Let's see how much you know so far by doing an activity called Healthy Beliefs. (Conduct activity per instructions provided)
For the next three days, write down everything you eat and drink + your activity. Where can you make changes?
Energy Balance

Key Point Recap

- Calories In vs. Calories Out
- IN: food choices - variety, balance, moderation, nutrient density
- OUT: activity – “FITT”
- Keep track to tip the scale
Segue: Living in energy balance / healthy diet is more than just worrying about calories – it’s about the quality of the food we’re eating. Let’s look more closely at the basic nutrients.
LET’S MOVE!

Description: Participants perform physical activity as they call out key words.

Equipment and Supplies Needed:
□ Chalk board, dry erase board, or PowerPoint slide
□ List of words
□ List of physical activities to be performed

Organization:
□ Participants are scattered in a safe area to perform physical activity.

Facilitation:
1. Instruct participants to march in place.
2. Announce the physical activity to be performed during the round (ex. forward lunges).
3. Call out a word (ex. energy).
4. Participants call out “ENERGY” while doing as many forward lunges as they can in one minute.
5. Continue announcing physical activity and word for each round.
6. Continue activity until 10 minutes of physical activity has been completed.

Suggestions:
➢ Choose key words from presentation given before activity.
  “Energy Balance” ideas:

<table>
<thead>
<tr>
<th>ENERGY</th>
<th>NUTRIENT</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALANCE</td>
<td>ACTIVITY</td>
<td>AEROBIC</td>
</tr>
<tr>
<td>CALORIES</td>
<td>FREQUENCY</td>
<td>STRENGTH</td>
</tr>
<tr>
<td>VARIETY</td>
<td>INTENSITY</td>
<td>TRACK</td>
</tr>
<tr>
<td>MODERATION</td>
<td>TIME</td>
<td></td>
</tr>
</tbody>
</table>

➢ Possible physical activities:

FORWARD LUNGES
JUMPING JACKS
FORWARD KICKS

VERTICAL JUMPS
ARM LIFTS
SQUATS

Variation:
➢ Instructor asks participants for words and/or physical activities to be performed.
Activity: Healthy Beliefs

Time
20 minutes

Objectives
➢ Learn the beliefs about the appearance of a healthy child and an unhealthy child.
➢ Learn terms that are used to describe healthy and unhealthy children, fat and thin children, and active and inactive children.
➢ Create a conversation about cultural beliefs of health.

Materials Needed
□ Laminated color flash cards of silhouette body images and colored circles representing different BMIs. Use only one image per flashcard.
□ Copy of “Child Health Worksheet” sets for each participant (six pages)
□ CDC BMI charts for boys and girls, ages 2-20 years old
□ Pens or pencils

Preparation
1. Complete the Energy Balance presentation provided with this curriculum.

Presentation
1. Begin the activity by asking participants to break into small groups of 4-5 people.
2. As a class, discuss that different groups of people have different thoughts on what “healthy” or “unhealthy” looks like.
3. State that you are going to show images of children ages 4-5 years old and ask some questions for them to discuss in their small groups.
4. Distribute worksheets.
5. Show Silhouette blue (B), pink (D) and yellow (F) simultaneously. Use silhouettes of the same gender as focal child.
6. Pointing to Silhouette pink (D)
   How would you describe this child?
   What are some words people might use to describe this child?
   What kind of things do you think this child does to play?
   What kinds of things do you think this child’s mother feeds him/her?
   Would you have any worries if your child looked like this?
7. Pointing to Silhouette blue (B)
   How would you describe this child?
   What are some words people might use to describe this child?
   What kind of things do you think this child does to play?
   What kinds of things do you think this child’s mother feeds him/her?
   Would you have any worries if your child looked like this?
8. Pointing to Silhouette yellow (F)
   How would you describe this child?
   What are some words people might use to describe this child?
   What kind of things do you think this child does to play?
What kinds of things do you think this child’s mother feeds him/her?  
Would you have any worries if your child looked like this?

Comparing these three children, which do you think looks healthiest?  
Why do you think that?

9. Add Silhouette dark green (A), light green(C), red (E) and purple (G) to those already visible.
Which child here would you describe as the healthiest child?  Why?
What terms do people use when they are talking about a healthy child?
What are the characteristics of a healthy child?
What does a healthy child look like?
How does a healthy child act?

Which child here would you describe as the least healthy child?
What terms do people use when they are talking about an unhealthy child?
What are the characteristics of an unhealthy child?
What does an unhealthy child look like?
How does an unhealthy child act?

Which child looks most like yours?
Which would you most like your child to look like?
IF NOT THE SAME: Why do you think your child does not look the way you would like?

10. Looking at Silhouette purple (G)
What words would you use to describe this child?
What terms do people use when they are talking about this child?
How does this child act?
How do you think this child got to look like this?

11. Looking at Silhouette dark green (A)
What words would you use to describe this child?
What terms do people use when they are talking about this child?
How does this child act?
How do you think this child got to look like this?

Conclusion
BMIs for children are calculated using different charts than adults. Show child charts for boys and girls.

Using the corresponding BMIs for the silhouettes (aged 4-5 years old) and CDC BMI charts, the purple child (G) would be considered in the underweight category (BMI=13.9); the yellow (F), red (E), pink (D), and light green (C) children would be considered in the healthy weight category (BMI=14.5; 14.9; 15.4; 15.9, respectively); the
blue (B) child would be considered in the overweight category (BMI=17.8); and the dark green (A) child would be considered in the obese category (BMI=18.4).

After the conversation you just had, how can you help make your families, children, and communities healthier? Why do you think different people have different opinions on the concept of health?

Acknowledgements:
Adapted with permission by Laura Dirkse, MPH, The University of Texas School of Public Health Brownsville Regional Campus
Activity: Healthy Beliefs

Participant Sheets
Child Health Beliefs Worksheet 1

Now I’m going to show you various drawings of children (blue, pink, and yellow) and ask you some questions.

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>How would you describe this child?</th>
<th>What words would you use to describe this child?</th>
<th>What kind of things do you think this child does to play?</th>
<th>What kinds of things do you think this child’s mother feeds him/her?</th>
<th>Would you have any worries if your child looked like this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B=Blue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Blue Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D=Pink</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Pink Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F=Yellow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Yellow Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Use the boys and girls.*
Child Health Beliefs Worksheet 2

When comparing these 4 children (dark green, light green, red, and purple), which would you say is the healthiest? Why do you think this?

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>Which child here would you describe as the healthiest child? Why?</th>
<th>What are terms that people use when they are talking about a healthy child?</th>
<th>What are the characteristics of a healthy child?</th>
<th>What does a healthy child look like?</th>
<th>How does a healthy child act?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A=Dark green</td>
<td><img src="image" alt="Green Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C=Light green</td>
<td><img src="image" alt="Yellow Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E=Red</td>
<td><img src="image" alt="Red Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G=Purple</td>
<td><img src="image" alt="Purple Silhouette" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Child Health Beliefs Worksheet 3

Which of these children (dark green, light green, red, and purple) here would you say is the least healthy?

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>Which child here would you describe as the least healthy child?</th>
<th>What are terms that people use when they are talking about an unhealthy child?</th>
<th>What are the characteristics of an unhealthy child?</th>
<th>What does an unhealthy child look like?</th>
<th>How does an unhealthy child look?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A=Dark green</td>
<td><img src="image1.png" alt="Image" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C=Light green</td>
<td><img src="image2.png" alt="Image" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E=Red</td>
<td><img src="image3.png" alt="Image" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G=Purple</td>
<td><img src="image4.png" alt="Image" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Child Health Beliefs Worksheet 4

Which of these children (dark green, light green, red, and purple) here looks most like your child/children? Write the names of group members in the space they indicate.

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>Which child looks most like yours?</th>
<th>Which would you most like your child to look like?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A=Dark green</td>
<td><img src="image" alt="Dark green silhouette" /></td>
<td><img src="image" alt="Dark green silhouette" /></td>
</tr>
<tr>
<td>C=Light green</td>
<td><img src="image" alt="Light green silhouette" /></td>
<td><img src="image" alt="Light green silhouette" /></td>
</tr>
<tr>
<td>E=Red</td>
<td><img src="image" alt="Red silhouette" /></td>
<td><img src="image" alt="Red silhouette" /></td>
</tr>
<tr>
<td>G=Purple</td>
<td><img src="image" alt="Purple silhouette" /></td>
<td><img src="image" alt="Purple silhouette" /></td>
</tr>
</tbody>
</table>
Child Health Beliefs Worksheet 5

Looking at the purple silhouette, what words would you use to describe this child?

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>Which words would you use to describe this child?</th>
<th>Which terms would other people use to when talking about this child?</th>
<th>How does this child act?</th>
<th>How do you think this child got to look like this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>G=Purple</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Child Health Beliefs Worksheet 6

Looking at the dark green silhouette, what words would you use to describe this child?

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>Which words would you use to describe this child?</th>
<th>Which terms would other people use to when talking about this child?</th>
<th>How does this child act?</th>
<th>How do you think this child got to look like this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A=Dark green</td>
<td>![Silhouette Image]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Your Health Matters:
Nutritious Eating

Portion Distortion
Portions and Servings: What's the Difference?

A **portion** can be thought of as the amount of a specific food you *choose* to eat for dinner, snack, or other eating occasion. Portions, of course can be bigger or smaller than the recommended food servings. A **serving** is a unit of measure used to describe the amount of food recommended from each food group. It is the amount of food listed on the Nutrition Facts panel on packaged food or the amount of food recommended in the Food Guide Pyramid and the **Dietary Guidelines for Americans**.

Many foods that come as a **single portion** actually contain **multiple servings**. The Nutrition Facts label on packaged foods tells you the number of servings in the container. For example, look at the label of a 20-ounce soda (typically consumed as one portion), and you'll see that it has 2.5 servings in it. A 3-ounce bag of chips—which some would consider a single portion—contains 3 servings.

**Portion Distortion**

Average portion sizes have grown so much over the past 20 years that sometimes the plate arrives and there's enough food for two or even three people on it. These growing portion sizes are changing what Americans think of as a "normal" portion at home, too. We call it **portion distortion**.

Here are some examples of how growing portions lead to increased calories:

<table>
<thead>
<tr>
<th>Comparison of Portions and Calories 20 Years Ago to Present Day</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>20 Years Ago</strong></td>
</tr>
<tr>
<td>Portion</td>
</tr>
<tr>
<td>Bagel</td>
</tr>
<tr>
<td>Cheeseburger</td>
</tr>
<tr>
<td><strong>Spaghetti with meatballs</strong></td>
</tr>
<tr>
<td>1 cup sauce</td>
</tr>
<tr>
<td>Soda</td>
</tr>
<tr>
<td><strong>Blueberry muffin</strong></td>
</tr>
<tr>
<td>1.5 ounces</td>
</tr>
<tr>
<td><strong>Flour tortillas</strong></td>
</tr>
<tr>
<td>Small/fajita size</td>
</tr>
</tbody>
</table>

See Appendix for “Healthier Eating: Getting Where You Need to Be” and “How Many Fruits and Vegetables Do You Need?” Handouts

Portion Distortion
How Food Portions Have Changed in 20 Years

Presentation adapted from the National Heart, Lung, and Blood Institute Obesity Education Initiative
CHEESEBURGER

20 Years Ago

Today
CHEESEBURGER

20 Years Ago

333 calories

Today

590 calories

Calorie Difference: 257 calories
How long will you have to lift weights in order to burn the extra 257 calories?*

*Based on 130-pound person
If you *lift weights* for 1 hour and 30 minutes, you will burn approximately **257 calories**.

*Based on 130-pound person*
FRENCH FRIES

20 Years Ago
210 Calories
2.4 ounces

Today
How many calories are in today’s portion of fries?
FRENCH FRIES

20 Years Ago

210 Calories
2.4 ounces

Today

610 Calories
6.9 ounces

Calorie Difference: 400 Calories
How long will you have to walk leisurely in order to burn those extra 400 calories?*

*Based on 160-pound person
If you **walk briskly** for 1 hour and 10 minutes you will burn approximately **400 calories.**

*Based on 160-pound person*
SPAGHETTI & MEATBALLS

20 Years Ago

500 calories
1 cup spaghetti with sauce and 3 small meatballs

Today

How many calories do you think are in today's portion of spaghetti and meatballs?
## SPAGHETTI & MEATBALLS

<table>
<thead>
<tr>
<th>20 Years Ago</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 calories</td>
<td>1,025 calories</td>
</tr>
<tr>
<td>1 cup spaghetti with sauce and 3 small meatballs</td>
<td>2 cups of pasta with sauce and 3 large meatballs</td>
</tr>
</tbody>
</table>

Calorie Difference: 525 calories
How long will you have to swim in order to burn the extra 525 calories?*

*Based on 130-pound person
If you **swim (moderately)** for 1 hour and 30 minutes, you will burn approximately **525 calories**.*

*Based on 130-pound person*
**TURKEY SANDWICH**

20 Years Ago

320 calories

Today

How many calories are in today’s turkey sandwich?
TURKEY SANDWICH

20 Years Ago

![Sandwich Image]

320 calories

Today

![Sandwich Image]

820 calories

Calorie Difference: 500 calories
How long will you have to ride a bike in order to burn those extra 500 calories?*

*Based on 160-pound person
If you ride a bike for 1 hour and 25 minutes, you will burn approximately 500 calories.*

*Based on 160-pound person
TORTILLA

20 Years Ago

220 calories
(2) small/fajita flour tortillas

Today

How many calories in
(2) large/burrito size flour tortillas?
TORTILLA

20 Years Ago

220 calories
(2) small/fajita flour tortillas

Today

420 calories
(2) large/burrito size flour tortilla?

Calorie Difference: 200 calories
How long will you have to sweep in order to burn the extra 200 calories?*

*Based on 160-pound person
If you **sweep** for 50 minutes you will burn the extra **200 calories**.*

*Based on 160-pound person
**SODA**

20 Years Ago

85 Calories
6.5 ounces

Today

How many calories are in today’s portion?
SODA

20 Years Ago

85 Calories
6.5 ounces

Today

250 Calories
20 ounces

Calorie Difference: 165 Calories
How long will you have to work in the garden to burn those extra 165 calories?*

*Based on 160-pound person
If you work in the garden for 35 minutes, you will burn approximately 165 calories.*

*Based on 160-pound person
The American Cancer Society recommends eating a healthy diet—mostly plant sources such as fruits, vegetables and whole grains.

Choose foods and beverages in amounts that help achieve and maintain a healthy weight.

- Pay attention to serving sizes and read food labels to know the number of actual servings you eat. (NOTE: Nutrition Facts label is discussed in more detail later in a separate presentation.)
- Eat smaller portions of high-calorie foods. "Low-fat" or "nonfat" does not mean "low-calorie." Low-fat cakes, low-fat cookies, and other low-fat foods are often high in calories.
- Replace calorie-dense foods and beverages such as fries, burgers, pizza, ice cream, sweets, and regular sodas with vegetables, fruits, whole grains, and other low-calorie choices.
- When you eat out, choose options low in calories, fat, and sugar, and avoid large portions.
What counts as a serving?

- ½ cup rice or pasta = baseball
- 1 cup cooked veggies = tennis ball
- ¼ cup nuts or dried fruit = golf ball
- 2 TBSP nut butter = ping pong ball
- 1 oz hard cheese = 4 dice
- 3 oz meat/fish/poultry = deck of cards
- 1 potato = computer mouse
- 1 oz bread/toast/pancake = CD case
- 1 tsp oil = water bottle cap

Adapted from Whole Foods Market, “The Whole Deal” August/September 2009

Serving Sizes by Food Groups (American Cancer Society)

Fruits: 1 medium apple, banana, orange; ½ cup chopped/cooked/canned fruit; ½ cup 100% fruit juice
Vegetables: 1 cup raw leafy vegetables; ½ cup other cooked or raw vegetables, chopped; ½ cup 100% vegetable juice
Grains: 1 slice bread; 1 ounce ready-to-eat cereal; ½ cup cooked cereal/rice/pasta
Beans and nuts: ½ cup cooked dry beans; 2 TBSP peanut butter; 1/3 cup nuts
Dairy and eggs: 1 cup milk or yogurt; 1½ ounces natural cheese; 2 ounces processed cheese; 1 egg
Meats: 2-3 ounces cooked lean meat/poultry/fish
When eating out, cut your order in half and share it with someone or take half home for another meal.
Portion Distortion

Key Point Recap

➢ Size matters! Pay attention to servings/portions.

➢ More calories IN means more calories to burn.

➢ Eat a healthy diet of mostly fruits, vegetables, and whole grains.
Segue: Now that we know more about how we got where we are, let’s now dive into how to make healthy changes.
Your Health Matters: Nutritious Eating

Healthy Eating
Healthy Eating

Go
Slow
Whoa

Planning a Healthy Plate
To start off this section, we are going to watch a short 10-minute video.

PLAY VIDEO

After the video, let participants make a few comments. Tell them that throughout the training, many of the concepts presented in the video will be discussed in more detail.
So the video talks about Go-Slow-Whoa... The **GO-SLOW-WHOA** concept is a tool to guide us toward making healthy food choices.

**GO** foods are commonly described as “whole foods.” They’re lower in added sugars and/or unhealthy fats, such as saturated fat, and they’re often less processed compared to foods in the same food group. GO foods include fruits and vegetables; whole grains and foods made with whole grains; and unsweetened fat-free and low-fat milk and dairy foods.

**SLOW** foods are higher in added sugars and/or unhealthy fats and may be more processed than GO foods. SLOW foods include unsweetened reduced-fat milk and dairy foods; sweetened fat-free and low-fat milk and dairy foods; and processed foods made with refined grains and added sugars and/or unhealthy fats.

**WHOA** foods are highest in added sugars and/or unhealthy fats, and they’re usually the most processed. WHOA foods include candy, cookies, chips, fried foods, ice cream, whole milk, soft drinks, and sugary cereals.

It’s best to eat more GO foods than SLOW foods, and more SLOW foods than WHOA foods. The healthiest type of meal includes mostly GO foods.
**GO** foods include mostly fruits, vegetables, whole grains, fat-free dairy products, lean meat, poultry, fish, beans, eggs, nuts.

These are great to eat anytime since they have the least amount of fat, sugar, and calories. They are the least processed foods and are high in nutrients which are important for health.
**SLOW** foods are higher in fat and/or sugar and/or are more processed than **GO** foods. These should be eaten less often.

Examples include: White bread, white rice, flour tortilla, tortilla chips, cereal, broccoli with cheese sauce, low-fat/reduced-fat milk, canned fruit in syrup.
**WHOA** foods are highest in fat and/or sugar, and/or are the most processed. These foods should only be eaten once in a while/on special occasions in small amounts.

Examples include: fried food, cheeseburgers, pepperoni pizza, **whole** milk, sodas, chocolate cake, ice cream

A quick note about milk and infants: Experts recommend that cow’s milk not be introduced any earlier than age 1; a baby’s immune system and digestive system are not developed enough for milk consumption.

**NOTE:** Although the quantity of a food is not specifically considered when determining whether it is **GO**, **SLOW**, or **WHOA**, it is important to note that many foods can become **WHOA** foods if eaten in large quantities.
Pop Quiz!

Which food is Go? Slow? Whoa?

1) White rice
   Brown rice
   Fried rice

2) Baked potato
   Baked potato with butter
   Fried French fries

3) Milkshake
   Skim milk
   Low-fat milk
Pop Quiz!

Which food is Go? Slow? Whoa?

1) White rice S
   Brown rice G
   Fried rice W

2) Baked potato G
   Baked potato with butter S
   Fried French fries W

3) Milkshake W
   Skim milk G
   Low-fat milk S
Pop Quiz!

Which food is
Go? Slow? Whoa?

4) Peach in canned syrup
   Peach pie
   Fresh peach

5) 100% juice
   Fruit-flavored soda
   Fruit smoothie

6) Doughnut
   White bread
   Whole wheat bread
Pop Quiz!

Which food is Go? Slow? Whoa?

4) Peach in canned syrup S
   Peach pie W
   Fresh peach G

5) 100% juice G
   Fruit-flavored soda W
   Fruit smoothie S

6) Doughnut W
   White bread S
   Whole wheat bread G
Planning a Healthy Plate

So now that you know about healthier food choices and portion sizes, creating your plate at meal time will be fast and easy!
As you create your plate for each meal, remember the Dietary Guidelines:

**Variety** – eat different varieties of foods within each food group – eat a rainbow everyday

**Balance** or proportionality – eat the right amount within each food group

**Moderation** – don’t consume too much of a particular type of food

**Nutrient Density** – ratio of nutrients in a food compared to its calories -- Choose nutrient-dense (rich in nutrients) versus empty calories which are items that are calorie dense
Now let’s create a plate!

You may have heard of the "Plate Method." It’s simple and effective for both losing weight and managing diabetes. First we’ll watch a video to learn more (click on link at bottom of slide).

As the video stated... (click to reveal arrows highlighting each section of plate)

1. First, put a line down the middle of the plate.
2. Then on one side, cut it again so you have 3 sections on your plate.
3. Fill the largest section with **1 and a ½ cups of non-starchy vegetables** such as:
   - spinach, carrots, lettuce, greens, cabbage, bok choy
   - green beans, broccoli, cauliflower, tomatoes,
   - vegetable juice, salsa, onion, cucumber, beets, okra,
   - mushrooms, peppers, turnip
4. Now in one of the small sections, put **starchy foods** such as:
   - 1 slice of whole grain bread
   - ½ cup whole grain, high-fiber cereal; brown rice, whole wheat pasta, corn tortilla, beans, peas, sweet potatoes, squash
5. On the other small section, put **3 ounces of lean meat or meat substitutes** such as:
   - chicken or turkey without the skin
   - fish such as salmon
   - sirloin or pork loin
   - tofu, eggs, low-fat cheese
6. Next, add **1 cup of non-fat/low-fat milk or light yogurt.**
7. Finally, add a **piece of fresh fruit** and you have your meal planned!

Note there is also a place for **unsaturated fat** and a glass of **water.**

Diabetics can follow these same guidelines with just a few adjustments for breakfast (when managing blood glucose levels is particularly important). Breakfast portions should be small. Use half your plate for starchy/whole grain foods. Add fruit in the small part and a meat or meat substitute in the other.
Eat 5 or more servings of vegetables and fruits every day.

Include vegetables and fruits at every meal and for snacks.

Eat a variety of vegetables and fruits daily.

Limit fries, chips and other fried vegetable products.

Choose 100% juice if you drink vegetable or fruit juices.
Now we’ll really test your knowledge about healthy eating by doing an activity called Build-A-Meal.
(Conduct activity per instructions provided)
Challenge!

One day this week, eat only GO foods.
Healthy Eating

**Key Point Recap**

- A healthy diet has more **GO** foods than **SLOW** foods, and more **SLOW** foods than **WHOA** foods.

- Create your plate with Variety, Balance, Moderation, and Nutrition in mind.

- A Healthy Plate has mostly vegetables, some whole grain, lean meat/fish, fruit and a small amount of unsaturated fat.
Segue: Living in energy balance, a healthy diet is more than just worrying calories – it’s about the quality of the food we’re eating. Let’s take a closer look at the basic nutrients.
Activity: Build-A-Meal

Time
45 minutes

Objective
➢ Create a healthy meal using GO, SLOW and WHOA foods

Equipment Needed
□ Computer, projector and screen (or white wall space) for PowerPoint presentation

Materials Needed
□ Copy of GO, SLOW, and WHOA meal choices for participants
□ Copy of “How Does Your Lunch Stack Up?” handout for each participant
□ Copy of “Nutritional Information” chart for each participant or small group

Preparation
1. Read all materials thoroughly before presenting the activity.
2. Provide each participant with the GO, SLOW, or WHOA food choice lists.

Presentation
1. Read/paraphrase the following to the participants:

   Food gives us energy to do the things we need to do. In addition, the nutrients in the food we eat help our bodies grow and develop. Unfortunately, most people don’t think much about the food they put into their bodies. But food is pretty complicated—protein, calories, vitamins, carbohydrates, fats and more! Putting the correct things in the body can give more energy and better health. I bet there are a lot of facts you didn’t know:

   A. The average adult needs approximately 2,000 calories a day to function correctly. This amount can vary somewhat from person to person, but too few calories can lead to a lack of energy and inability to concentrate. Too many calories can lead to serious weight gain.
   B. It is important to pay attention to serving sizes. A large bottle of chocolate milk doesn’t contain one, or even two servings. The bottle says there are actually four servings in the chocolate milk. In addition, a serving of pizza is just ONE piece. Who eats just one piece of pizza?
   C. A Double Quarter Pounder with cheese accounts for 75% of the fat a person should eat in a whole day! This is before you put mayonnaise on the burger or order any French fries.

2. Review the Go-Slow-Whoa concept (if needed) by reading/paraphrasing/discussing the information below presented in preceding PowerPoint presentation.
The **GO-SLOW-WHOA** list is a tool to guide individuals toward making healthy food choices. The overall message is that although all foods can be included in the diet, a healthy diet consists of more **GO** foods than **SLOW** foods, and more **SLOW** foods than **WHOA** foods.

- **GO** foods are commonly described as “whole foods.” They’re lower in added sugars and/or unhealthy fats, such as saturated fat, and they’re often less processed compared to foods in the same food group. **GO** foods include fruits and vegetables; whole grains and foods made with whole grains; and unsweetened fat-free and low-fat milk and dairy foods.

- **SLOW** foods are higher in added sugars and/or unhealthy fats and may be more processed than **GO** foods. **SLOW** foods include unsweetened reduced-fat milk and dairy foods; sweetened fat-free and low-fat milk and dairy foods; and processed foods made with refined grains and added sugars and/or unhealthy fats.

- **WHOA** foods are highest in added sugars and/or unhealthy fats, and they’re usually the most processed. **WHOA** foods include candy, cookies, chips, fried foods, ice cream, whole milk, soft drinks, and sugary cereals.

It’s best to eat more **GO** foods than **SLOW** foods, and more **SLOW** foods than **WHOA** foods. The healthiest type of meal includes mostly **GO** foods.

Although the quantity of a food is not specifically considered when determining whether it is **GO**, **SLOW**, or **WHOA**, it is important to note that many foods can become **WHOA** foods if eaten in large quantities. The **GO-SLOW-WHOA** list is not a list of “good” and “bad” foods, nor should anyone categorize “good” or “bad” foods. Any food can be eaten as long as the frequency of eating it, as well as serving size, is considered. The purpose of the **GO-SLOW-WHOA** list is to educate and to encourage positive choices toward eating healthful foods. Since **GO** food choices aren’t always available, you should make healthful choices **whenever possible**.

There may be a question about where to place combination foods or foods not listed. For combination foods, each ingredient can be examined for its placement on the **GO-SLOW-WHOA** list. For example, spaghetti may have some type of meat such as ground beef or ground turkey, tomato sauce, and pasta. If the ground beef is extra lean or if the cooked ground beef was drained and rinsed, and if the pasta is whole-grain, then the spaghetti would be a **GO** food. For pizza, if the crust is whole-wheat, the cheese is low-fat, and the topping is a vegetable, then the pizza would be a **GO** food. In other cases, the preparation method must also be considered. For example, if a food is low in fat and is served fresh with no added fat, it is probably a **GO** food. However, if it is prepared by frying, it is a **WHOA** food.

3. Explain to the class that today they are going to design their lunch meal. Direct participants to make one choice from each of the four food categories (main dish, side dish, drink, dessert) by selecting foods from the food lists to build their lunch meal by filling in their charts with the information provided.

4. Hold a discussion of what was learned by asking participants to share their results.

5. Optional: Present the accompanying Build-A-Meal Family Activity as “homework.”
**GO Food Choices**

**Main Dishes-GO**
Eggs (scrambled, no fat added)
  Hummus
  Refried Beans (fat-free)
  Salmon (grilled)
  Salad with light dressing
Salad with grilled skinless chicken and light dressing
  Turkey (low-fat) sandwich on whole wheat

**Side Dishes-GO**
  Apple
  Whole wheat toast
  Broccoli
  String Cheese (low-fat)
  Salad with light dressing
  Raisins
  Low-fat plain yogurt

**Drinks-GO**
  Water
  Unsweetened decaf tea
  Milk (skim)
  Orange Juice

**Desserts-GO**
  Yogurt (low-fat plain)
  Strawberries
  Graham crackers
  Popcorn (air popped)
  Pineapple
SLOW Food Choices

Main Dishes-SLOW
- Hamburger (lean) with bun
- Peanut butter and jelly sandwich on white bread
- Chicken Nuggets (baked)
- Eggs (fried in vegetable oil)
- Turkey sandwich on white bread
- Cereal (Low-fat granola) with 2% milk
- Fish Sticks (baked)

Side Dishes-SLOW
- Broccoli with Cheese Sauce
- French Fries (baked)
- Potato Chips (baked)
- Toast (white)
- Cheddar Cheese
- Tortilla Chips
- Rice (white)

Drinks-SLOW
- Iced Tea
- Milk (2% fat)
- Milk (chocolate skim)

Desserts-SLOW
- Frozen Yogurt (low-fat)
- Vanilla wafers
- Ice Cream (low-fat)
WHOA Food Choices

Main Dishes-WHOA
   Cheeseburger (quarter-pound)
   Chicken Sandwich (breaded and fried)
   Enchiladas
   Fried Chicken
   Pepperoni Pizza
   Hotdog and bun
   Ham and cheese sandwich on white bread

Side Dishes-WHOA
   French Fries (fried)
   Bacon
   Potato Salad
   Cheese (processed)
   Potato Chips (regular)
   Yogurt (whole milk)
   Pickles

Drinks-WHOA
   Coke
   Milk (whole)
   Sprite
   Fruit punch
   Energy drink
   Sports drink
   Coffee drink (frozen)

Desserts-WHOA
   Chocolate Cake
   Oreo Cookies
   Ice Cream
   Brownie
Build-A-Meal:
How does your lunch stack up?

<table>
<thead>
<tr>
<th>Main Dish</th>
<th>Side Dish</th>
<th>Drink</th>
<th>Dessert</th>
<th>Total from Lunch</th>
<th>1/3 RDA for adults 31-50 yrs</th>
<th>Over/Under</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat (grams)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22 g*</td>
<td></td>
</tr>
<tr>
<td>Sodium (mg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500 mg</td>
<td></td>
</tr>
<tr>
<td>Carbohydrates (grams)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~43 g</td>
<td></td>
</tr>
<tr>
<td>Protein (grams)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15-18 g</td>
<td></td>
</tr>
<tr>
<td>Total Calories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~660 kcal**</td>
<td></td>
</tr>
</tbody>
</table>

*Based on a 2,000-calorie diet with no more than 30% of calories from fat and 10% from saturated fat.
*Based on a 2000-calorie diet.

Now, as a group, total the fat, sodium, carbohydrates, protein, and calories for all participants that chose foods from the GO list, those that chose from the SLOW list, and those that chose from the WHOA list. Divide these totals by the number of participants in each group to get an average for each nutrient.
Use the table below to see how well your day’s meals stack up to balanced nutrition. Remember, even if you do really well that you have to watch for serving sizes. (In other words, just because your Oreo cookies didn’t put you over the fat limit doesn’t mean you should eat half the bag!)

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat grams, g</th>
<th>Sodium milligrams, mg</th>
<th>Carbohydrates grams, g</th>
<th>Protein grams, g</th>
<th>Total Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>0</td>
<td>0</td>
<td>22</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>Bacon</td>
<td>7</td>
<td>280</td>
<td>0</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Broccoli</td>
<td>0</td>
<td>25</td>
<td>4</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Broccoli with cheese sauce</td>
<td>14</td>
<td>703</td>
<td>8</td>
<td>14</td>
<td>212</td>
</tr>
<tr>
<td>Brownie</td>
<td>9</td>
<td>175</td>
<td>36</td>
<td>3</td>
<td>227</td>
</tr>
<tr>
<td>Cereal with 2% Milk</td>
<td>7</td>
<td>223</td>
<td>47</td>
<td>12</td>
<td>286</td>
</tr>
<tr>
<td>Cheddar Cheese</td>
<td>9</td>
<td>174</td>
<td>0</td>
<td>7</td>
<td>113</td>
</tr>
<tr>
<td>Cheese (processed)</td>
<td>9</td>
<td>400</td>
<td>1</td>
<td>6</td>
<td>105</td>
</tr>
<tr>
<td>Cheeseburger (quarter-pound)</td>
<td>29</td>
<td>1160</td>
<td>37</td>
<td>28</td>
<td>520</td>
</tr>
<tr>
<td>Chicken nuggets (baked)</td>
<td>10</td>
<td>560</td>
<td>20</td>
<td>20</td>
<td>240</td>
</tr>
<tr>
<td>Chicken sandwich (breaded and fried)</td>
<td>29</td>
<td>797</td>
<td>42</td>
<td>17</td>
<td>491</td>
</tr>
<tr>
<td>Chocolate Cake</td>
<td>11</td>
<td>250</td>
<td>36</td>
<td>3</td>
<td>250</td>
</tr>
<tr>
<td>Coffee drink (frozen)</td>
<td>2</td>
<td>165</td>
<td>40</td>
<td>3</td>
<td>195</td>
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<td>Coke</td>
<td>0</td>
<td>35</td>
<td>27</td>
<td>0</td>
<td>100</td>
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<tr>
<td>Eggs (fried in vegetable oil)</td>
<td>19</td>
<td>63</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Eggs (scrambled, no fat added)</td>
<td>5</td>
<td>63</td>
<td>1</td>
<td>6</td>
<td>74</td>
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<tr>
<td>Enchiladas</td>
<td>33</td>
<td>980</td>
<td>37</td>
<td>34</td>
<td>560</td>
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<tr>
<td>Fish sticks (baked)</td>
<td>14</td>
<td>642</td>
<td>26</td>
<td>18</td>
<td>304</td>
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<tr>
<td>French Fries (baked)</td>
<td>5</td>
<td>1050</td>
<td>40</td>
<td>5</td>
<td>140</td>
</tr>
<tr>
<td>French Fries (fried)</td>
<td>25</td>
<td>1105</td>
<td>60</td>
<td>5</td>
<td>470</td>
</tr>
<tr>
<td>Fried Chicken</td>
<td>28</td>
<td>1230</td>
<td>19</td>
<td>34</td>
<td>460</td>
</tr>
<tr>
<td>Fruit Punch</td>
<td>0</td>
<td>10</td>
<td>29</td>
<td>0</td>
<td>114</td>
</tr>
<tr>
<td>Frozen Yogurt (low-fat)</td>
<td>2</td>
<td>146</td>
<td>48</td>
<td>11</td>
<td>227</td>
</tr>
<tr>
<td>Graham Crackers</td>
<td>2</td>
<td>170</td>
<td>22</td>
<td>2</td>
<td>118</td>
</tr>
<tr>
<td>Ham and cheese sandwich on white</td>
<td>22</td>
<td>1620</td>
<td>30</td>
<td>23</td>
<td>403</td>
</tr>
<tr>
<td>Hamburger (lean) with bun</td>
<td>2</td>
<td>342</td>
<td>22</td>
<td>36</td>
<td>439</td>
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<tr>
<td>Hotdog and bun</td>
<td>14</td>
<td>730</td>
<td>19</td>
<td>9</td>
<td>240</td>
</tr>
<tr>
<td>Hummus, ¼ c</td>
<td>12</td>
<td>480</td>
<td>18</td>
<td>10</td>
<td>210</td>
</tr>
<tr>
<td>Ice Cream (low-fat)</td>
<td>4</td>
<td>125</td>
<td>22</td>
<td>4</td>
<td>140</td>
</tr>
<tr>
<td>Ice Cream, regular</td>
<td>9</td>
<td>130</td>
<td>24</td>
<td>3</td>
<td>190</td>
</tr>
<tr>
<td>Iced Tea</td>
<td>0</td>
<td>25</td>
<td>21</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>Milk (whole)</td>
<td>8</td>
<td>98</td>
<td>13</td>
<td>8</td>
<td>146</td>
</tr>
<tr>
<td>Food</td>
<td>Fat grams, g</td>
<td>Sodium milligrams, mg</td>
<td>Carbohydrates grams, g</td>
<td>Protein grams, g</td>
<td>Total Calories</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>-----------------------</td>
<td>------------------------</td>
<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Milk (2% fat)</td>
<td>5</td>
<td>100</td>
<td>20</td>
<td>8</td>
<td>122</td>
</tr>
<tr>
<td>Milk (skim)</td>
<td>0</td>
<td>128</td>
<td>12</td>
<td>8</td>
<td>86</td>
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<tr>
<td>Milk (chocolate skim)</td>
<td>0</td>
<td>180</td>
<td>27</td>
<td>8</td>
<td>140</td>
</tr>
<tr>
<td>Orange Juice, 8 oz</td>
<td>0</td>
<td>0</td>
<td>27</td>
<td>1</td>
<td>110</td>
</tr>
<tr>
<td>Oreos (3)</td>
<td>7</td>
<td>210</td>
<td>24</td>
<td>2</td>
<td>160</td>
</tr>
<tr>
<td>Peanut Butter &amp; Jelly on White</td>
<td>17</td>
<td>315</td>
<td>33</td>
<td>10</td>
<td>310</td>
</tr>
<tr>
<td>Pepperoni Pizza, 1 slice</td>
<td>17</td>
<td>860</td>
<td>43</td>
<td>15</td>
<td>390</td>
</tr>
<tr>
<td>Pickle</td>
<td>0</td>
<td>1631</td>
<td>3</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Pineapple</td>
<td>0</td>
<td>2</td>
<td>20</td>
<td>1</td>
<td>74</td>
</tr>
<tr>
<td>Popcorn (air popped)</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>2</td>
<td>62</td>
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<tr>
<td>Potato Chips (regular)</td>
<td>9</td>
<td>170</td>
<td>16</td>
<td>2</td>
<td>150</td>
</tr>
<tr>
<td>Potato Chips (baked)</td>
<td>3</td>
<td>210</td>
<td>21</td>
<td>2</td>
<td>120</td>
</tr>
<tr>
<td>Potato Salad</td>
<td>28</td>
<td>460</td>
<td>19</td>
<td>4</td>
<td>340</td>
</tr>
<tr>
<td>Raisins</td>
<td>0</td>
<td>5</td>
<td>34</td>
<td>1</td>
<td>129</td>
</tr>
<tr>
<td>Refried beans (fat-free)</td>
<td>0</td>
<td>490</td>
<td>24</td>
<td>9</td>
<td>130</td>
</tr>
<tr>
<td>Rice (white)</td>
<td>1</td>
<td>3</td>
<td>41</td>
<td>5</td>
<td>194</td>
</tr>
<tr>
<td>Salad (with light dressing)</td>
<td>22</td>
<td>670</td>
<td>11</td>
<td>9</td>
<td>210</td>
</tr>
<tr>
<td>Salad (with grilled, skinless chicken, light dressing)</td>
<td>25</td>
<td>797</td>
<td>11</td>
<td>35</td>
<td>600</td>
</tr>
<tr>
<td>Salmon (grilled)</td>
<td>13</td>
<td>86</td>
<td>0</td>
<td>39</td>
<td>280</td>
</tr>
<tr>
<td>Sports Drink</td>
<td>0</td>
<td>95</td>
<td>15</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>Sprite</td>
<td>0</td>
<td>45</td>
<td>26</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Strawberries</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>1</td>
<td>49</td>
</tr>
<tr>
<td>String Cheese (low-fat)</td>
<td>2</td>
<td>200</td>
<td>1</td>
<td>8</td>
<td>60</td>
</tr>
<tr>
<td>Toast (white)</td>
<td>1</td>
<td>160</td>
<td>15</td>
<td>2</td>
<td>79</td>
</tr>
<tr>
<td>Toast (whole wheat)</td>
<td>1</td>
<td>147</td>
<td>13</td>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>Tortilla Chips</td>
<td>6</td>
<td>60</td>
<td>19</td>
<td>2</td>
<td>140</td>
</tr>
<tr>
<td>Turkey Sandwich on White</td>
<td>15</td>
<td>1585</td>
<td>29</td>
<td>24</td>
<td>346</td>
</tr>
<tr>
<td>Turkey (low-fat) Sandwich on Wheat</td>
<td>5</td>
<td>1010</td>
<td>46</td>
<td>18</td>
<td>280</td>
</tr>
<tr>
<td>Vanilla Wafers</td>
<td>4</td>
<td>87</td>
<td>21</td>
<td>1</td>
<td>123</td>
</tr>
<tr>
<td>Water</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yogurt (whole milk)</td>
<td>8</td>
<td>120</td>
<td>12</td>
<td>9</td>
<td>160</td>
</tr>
<tr>
<td>Yogurt (low-fat, plain)</td>
<td>3</td>
<td>115</td>
<td>12</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>
Test your meal-building skills at home!

Take-Home Family Activity: Build-A-Meal

How Does Your Family Meal Stack Up?

Take a minute to think about the foods that you and your family usually eat. As a family, review the GO-SLOW-WHOA concept of healthy eating and teach them what you learned during the Build-A-Meal activity to create three family meals of your choice. Remember to choose more GO foods than SLOW foods, and more SLOW foods than WHOA foods.

Healthy Eating Tips

In the Your Health Matters: Nutritious Eating, you learned about categorizing foods as GO, SLOW, or WHOA.

- **GO** foods are commonly described as “whole foods.” They’re lower in added sugars and/or unhealthy fats, such as saturated fat, and they’re often less processed compared to foods in the same food group. GO foods include fruits and vegetables; whole grains and foods made with whole grains; and unsweetened fat-free and low-fat milk and dairy foods.

- **SLOW** foods are higher in added sugars and/or unhealthy fats and may be more processed than GO foods. SLOW foods include unsweetened reduced-fat milk and dairy foods; sweetened fat-free and low-fat milk and dairy foods; and processed foods made with refined grains and added sugars and/or unhealthy fats.

- **WHOA** foods are highest in added sugars and/or unhealthy fats, and they’re usually the most processed. WHOA foods include candy, cookies, chips, fried foods, ice cream, whole milk, soft drinks, and sugary cereals.

It’s best to eat more GO foods than SLOW foods, and more SLOW foods than WHOA foods. The healthiest type of meal includes mostly GO foods.

When planning your daily meals, keep in mind that the average teenager needs 1,800 to 2,220 calories a day, adult females need about 1,800 calories a day, and adult males need about 2,200 calories a day.

**Directions:** Select a main dish, side dish, drink, and dessert from the handout of food choices. List your choices and the corresponding nutrition information in the tables on the following page. Then determine whether your choices meet the overall daily calorie recommendations. When creating your family meals you may want to use the Nutrition Information table and GO, SLOW, WHOA foods handout that you received in class.

Acknowledgement:
Adapted with permission from the CATCH Middle School project
Your Health Matters: Nutritious Eating
Build-A-Meal Family Activity

<table>
<thead>
<tr>
<th>MEAL #1</th>
<th>Main Dish</th>
<th>Side Dish</th>
<th>Drink</th>
<th>Dessert</th>
<th>Total from meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Choices:</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td></td>
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<tr>
<td>Fat (g)</td>
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</tr>
<tr>
<td>Sugar (mg)</td>
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<tr>
<td>Total calories</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MEAL #2</th>
<th>Main Dish</th>
<th>Side Dish</th>
<th>Drink</th>
<th>Dessert</th>
<th>Total from meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Choices:</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
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<tr>
<td>Fat (g)</td>
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<tr>
<td>Sugar (mg)</td>
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<tr>
<td>Total calories</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEAL #3</th>
<th>Main Dish</th>
<th>Side Dish</th>
<th>Drink</th>
<th>Dessert</th>
<th>Total from meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Choices:</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td>(circle one) GO SLOW WHOA</td>
<td></td>
</tr>
<tr>
<td>Fat (g)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar (mg)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total calories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After planning your three family meals, here are a few things to think about:
1. How do your total calories for each meal compare with the overall daily calorie recommendations?
2. Overall, how healthy were your choices?
3. What are three things you can change to make your meal healthier?
**Your Health Matters: Nutritious Eating**

**Build-A-Meal Family Activity**

**GO, SLOW, WHOA Food Examples**

### GRAINS

<table>
<thead>
<tr>
<th>GO</th>
<th>SLOW</th>
<th>WHOA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole-grain, low-sugar cereals</td>
<td>Low-sugar cereals (refined grains)</td>
<td>High-sugar cereals (refined grains)</td>
</tr>
<tr>
<td>Whole-grain breads/tortillas</td>
<td>White (refined flour) breads/buns</td>
<td>Sweet rolls, croissants</td>
</tr>
<tr>
<td>Graham crackers</td>
<td>Vanilla wafers, low-fat cookies</td>
<td>High-fat cookies</td>
</tr>
<tr>
<td>Corn tortillas</td>
<td>White (refined flour) tortillas</td>
<td></td>
</tr>
<tr>
<td>Whole-grain pasta</td>
<td>Pasta (refined flour)</td>
<td></td>
</tr>
<tr>
<td>Brown rice</td>
<td>White rice</td>
<td></td>
</tr>
<tr>
<td>Baked tortilla chips</td>
<td>Tortilla chips</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baked potato chips</td>
<td>Potato chips</td>
</tr>
<tr>
<td></td>
<td>Pretzels</td>
<td>Cheese puffs, corn chips</td>
</tr>
</tbody>
</table>

### MILK AND DAIRY FOODS

<table>
<thead>
<tr>
<th>GO</th>
<th>SLOW</th>
<th>WHOA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat-free (skim, nonfat) milk</td>
<td>2% milk</td>
<td>Whole milk</td>
</tr>
<tr>
<td>1% milk</td>
<td>Fat-free or 1% flavored milk</td>
<td>Whole or 2% flavored milk</td>
</tr>
<tr>
<td>Part-skim natural cheeses</td>
<td>Natural cheeses (like cheddar)</td>
<td>Processed cheeses</td>
</tr>
<tr>
<td>Low-fat string cheese</td>
<td>String cheese</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-fat ice cream</td>
<td>Ice cream</td>
</tr>
</tbody>
</table>

### MEAT, BEANS, AND EGGS

<table>
<thead>
<tr>
<th>GO</th>
<th>SLOW</th>
<th>WHOA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole eggs</td>
<td>Eggs fried in vegetable oil</td>
<td>Eggs fried in butter, lard, or bacon grease</td>
</tr>
<tr>
<td>Extra-lean ground beef</td>
<td>Lean ground beef/hamburger</td>
<td>Regular ground beef/hamburger</td>
</tr>
<tr>
<td>Fish (baked, grilled, broiled)</td>
<td>Fish (breaded and baked)</td>
<td>Fish (fried)</td>
</tr>
<tr>
<td>Pork chop with fat cut off</td>
<td>Canadian bacon</td>
<td>Bacon, ribs, pork skins</td>
</tr>
<tr>
<td>Low-fat luncheon meat</td>
<td>Regular luncheon meat</td>
<td>Hot dog, sausage, bologna, chorizo</td>
</tr>
<tr>
<td>Tuna canned in water</td>
<td>Tuna canned in oil</td>
<td></td>
</tr>
<tr>
<td>Cooked dried beans with no fat</td>
<td>Cooked dried beans with fat</td>
<td></td>
</tr>
<tr>
<td>Chicken – no skin (baked, grilled, broiled)</td>
<td>Chicken – with skin (baked, grilled, broiled)</td>
<td>Fried chicken</td>
</tr>
</tbody>
</table>

**Fruits and Fruit Juices**

All **fruits and fruit juices** with no added sugar are **GO** foods.

**Vegetables**

All **vegetables** with no added fat are **GO** foods.

**Beverages**

All **soft drinks, energy drinks, sports drinks, coffee drinks, and fruit-flavored drinks** are **WHOA** foods.
Your Health Matters: Nutritious Eating

The Basic Nutrients

Choose MyPlate.gov
The Basic Nutrients

TIP: For this section, use food models
Calories In
When making healthy choices, it is most important to focus on foods rather than nutrients. However, it can help to have some insight about the major categories of nutrients.

The Six Basic Nutrients we need to live are divided into two types:
- Macronutrients – which we need in larger amounts; and
- Micronutrients – which we need in smaller amounts

The macronutrients are: Water, Carbohydrates, Proteins, and Fats
The micronutrients are: Vitamins and Minerals

Based on the Dietary Guidelines for Americans, MyPlate is a useful tool to help you plan/assess your food choices for each category of nutrients. Let’s take a closer look at each category.
Water

- Makes up 60-75% total body weight
- Vital to keep your “engines” running
- Intake met with food and beverages
- 8 to 10 cups/day
Glucose is the best “fuel” for our brains and bodies, which is what we get from carbohydrates. Carbohydrates include whole grains, vegetables and fruits.

**Grains:** The best grains are whole grains like brown rice, buckwheat, bulgur (cracked wheat), oatmeal, popcorn; foods like corn and flour tortillas or crackers are made from refined grains; some are made from whole grains. Check the ingredient list for the words “whole grain” or “whole wheat” to decide if they are made from a whole grain.

The Dietary Guidelines include a specific recommendation to eat at least three servings (ounces) of whole grain foods each day.

For example: 1 oz = 1 cup of breakfast cereal; 1 slice of bread; ½ cup of cooked cereal, rice, or pasta

Choose whole grains over processed (refined) grains and sugars. Choose whole grain rice, bread, pasta, and cereals. Limit intake of refined carbohydrates (starches), such as pastries, sweetened cereals, and other high-sugar foods.

**Vegetables:** 2 ½ cups per day – especially dark green ones like broccoli and spinach + beans, peas, and lentils

**Fruits:** 2 cups per day – especially fresh or frozen (1 medium apple + 1 large banana)

Handout: What One Cup Looks Like
Your Health Matters: Nutritious Eating
The Basic Nutrients

### Proteins

- Give structure for muscle, bone, skin
- Meat, poultry, fish, eggs, nuts, seeds, beans
  - 5 1/2 ounces/day
- Dairy
  - 3 cups/day

In general, one ounce of meat/beans =
1 ounce of meat, poultry or fish
¼ cup cooked dry beans
1 egg
1 tablespoon of peanut butter
⅛ ounce of nuts or seeds

To help lower your risk of certain cancers, the American Cancer Society recommends limiting processed meats and red meats.

Choose fish, poultry, or beans instead of beef, pork, and lamb. When you eat meat, choose lean cuts and eat smaller portions.
Fats (Lipids)

- Provide structure and store energy
- Make most of your fat sources from fish, nuts, vegetable oils
- Limit butter, margarine, lard, shortening

A healthy diet also includes fat, also called lipid.  
Fats provide structure for your body and store energy.  
Make most of your fat sources from fish, nuts, and vegetable oils.  
Limit butter, margarine, shortening and lard.

Diets high in fat tend to be high in calories which can contribute to obesity, which in turn is linked with an increased risk of several types of cancer. Certain types of fats, such as saturated fats, may increase cancer risk.

Let's get a better understanding of the types of fats…
The Basic Nutrients

Fats and oils provide our bodies with nutrients we need for our hearts, and transport of vitamins in and around the body. Fats are also filling and tasty. However, fats are also high in calories. Therefore, to maintain a healthy weight, it is important to both reduce fat intake and choose which types of fat to eat.

The fats in foods are divided into three categories:

Unsaturated fats: are typically liquid at room temperature but start to turn solid when chilled, like olive oil.

Monounsaturated fats are typically liquid at room temperature and when chilled. They also include essential fats that your can’t produce itself – such as omega-3 and omega-6 which you must get through food.

When eaten in moderation and used to replace saturated fats or trans fats, both monounsaturated and polyunsaturated fats can help lower cholesterol and therefore lower your risk of heart disease.

Saturated fats: occur naturally in many foods, mostly from animal sources like meat and dairy, and also have dietary cholesterol. Some plant foods, such as palm oil, palm kernel oil and coconut oil, also contain primarily saturated fats, but do not contain cholesterol. Saturated fats are not a necessary part of a healthy diet. They contribute to blocking blood vessels by increasing bad cholesterol (LDL) and therefore increase risk for heart disease.

Trans fats: are created in a process that adds hydrogen to liquid vegetable oils to make them more solid so trans fats are also known as “partially hydrogenated oils.” Trans fats raise your bad (LDL) cholesterol and lower your good (HDL) cholesterol. Eating these increases your risk of developing heart disease and is also associated with a higher risk of developing type 2 diabetes.

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**GO SLOW WHOA and Fats**

<table>
<thead>
<tr>
<th>Unsaturated Fats</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>monounsaturated</td>
<td>Go</td>
</tr>
<tr>
<td>polyunsaturated</td>
<td></td>
</tr>
<tr>
<td>↓ heart disease risk</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Saturated Fats</th>
<th>Slow</th>
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</thead>
<tbody>
<tr>
<td>mostly from animal sources</td>
<td></td>
</tr>
<tr>
<td>not a necessary part of a healthy diet</td>
<td></td>
</tr>
<tr>
<td>↑ heart disease risk</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trans Fats (oils)</th>
<th>Whoa</th>
</tr>
</thead>
<tbody>
<tr>
<td>partially hydrogenated</td>
<td></td>
</tr>
<tr>
<td>not necessary for your body</td>
<td></td>
</tr>
<tr>
<td>↑ heart disease + diabetes risk</td>
<td></td>
</tr>
</tbody>
</table>

Fats and oils provide our bodies with nutrients we need for our hearts, and transport of vitamins in and around the body. Fats are also filling and tasty. However, fats are also high in calories. Therefore, to maintain a healthy weight, it is important to both reduce fat intake and choose which types of fat to eat.

The fats in foods are divided into three categories:
Dietary Sources of Unsaturated Fats

Vegetable Oils: Olive, Canola, Peanut, Sesame, Sunflower
Avocado, Peanut Butter, Nuts and Seeds, Fatty Fish

Eat these!

**Dietary sources of monounsaturated fats:**
vegetable oils such as olive oil, canola oil, peanut oil, sunflower oil and sesame oil
avocados, peanut butter, many nuts and seeds

**Dietary sources of polyunsaturated fats:**
vegetable oils, including soybean oil, corn oil and safflower oil
fatty fish such as salmon, mackerel, herring and trout
some nuts and seeds such as walnuts and sunflower seeds
Dietary Sources of Saturated Fats

Fatty Meats - Beef, Lamb, Poultry with skin
Full-fat Dairy Foods (cheese, butter, ice cream, whole milk)
Coconut and Palm Oils
Cocoa Butter

Limit these!

Dietary sources of saturated fats:
fatty meats – beef, lamb, pork, poultry with skin, beef fat (tallow), lard
full-fat dairy foods – cream, cheese, butter, ice cream, whole and reduced fat (2%) milk
coconut and palm oil
cocoa butter
many baked goods
many fried foods
Dietary Sources of Trans Fats

Stick Margarine, Some Tub Margarine, Shortening
Fried Foods. Some processed foods like baked goods and crackers

Avoid these!

Dietary sources of trans fats (partially hydrogenated oils):
stick margarine
some tub margarine
shortening
fried foods like fries and doughnuts, chips, baked goods including pastries, pie crusts, biscuits, pizza dough,
cookies, crackers
Vitamins

- Vital for using energy from carbohydrates, protein, and fat
- A, B₆, B₁₂, C, D, E, K, Folate, Thiamin, Riboflavin, Niacin, Biotin, Pantothenic Acid
- Best to get through a whole foods diet... variety!

The next basic nutrients are vitamins...
Fruits and vegetables are excellent sources of vitamins. For example:
Foods high in vitamin A include: cantaloupe, apricot, canned pumpkin, sweet potatoes
Foods high in vitamin B6 include: avocado, watermelon, turnip greens, carrots
Foods high in vitamin C include: kiwi, grapefruit, green peppers, cauliflower

Cruciferous vegetables belong to the cabbage family and include broccoli, cauliflower, Brussels sprouts, and kale. These vegetables contain certain compounds thought to lower the risk for colorectal cancer. Eating a wide variety of vegetables, including cruciferous and other vegetables, can help lower cancer risk.
Minerals

- Give bones structure, carry oxygen in your blood, regulate heartbeat
- Calcium, Iron, Potassium, Sodium, Zinc, Phosphorus, Magnesium, and more
- Best to get through a whole foods diet... variety!

The final category of basic nutrients are minerals...
Fruits and vegetables are also excellent sources of minerals. For example:
Foods high in calcium include: fortified 100% orange juice, beans, spinach, broccoli
Foods high in iron include: prunes, plums, lima beans, peas
Foods high in potassium include: bananas, raisins, potatoes, tomatoes
Another form of carbohydrate is alcohol (ethyl alcohol/ethanol/ETOH) which is NOT a nutrient.

According to the American Cancer Society, people who drink alcohol should limit their intake to no more than 2 drinks per day for men and 1 drink a day for women.

Alcohol is a known cause of cancers of the: mouth; pharynx (throat); larynx (voice box); esophagus; liver; breast; and may also increase the risk of colon and rectum cancer.
Alcohol… Not a nutrient!

Frozen Margarita
12 oz = 750 cal

Sweet Wine
4 oz = 105 cal

Regular Beer
12 oz = 149 cal

Tequila Shot
1.5 oz = 100 cal

Rum
1 oz = 64 calories

Moderation = no more than 1 drink per day for women; no more than 2 drinks per day for men

The Standard Measure of Alcohol
In the United States, a standard drink is any drink that contains 0.6 ounces (13.7 grams or 1.2 tablespoons) of pure alcohol. Generally, this amount of pure alcohol is found in:
- 12-ounces of regular beer or wine cooler
- 8-ounces of malt liquor
- 5-ounces of wine
- 1.5-ounces of 80-proof distilled spirits or liquor (e.g., gin, rum, vodka, whiskey)
According to the 2005 USDA Dietary Guidelines for Americans and MyPyramid, these are general recommendations for the major nutrients. Just like with calories, individual needs vary based on age, sex (male/female), activity level, health status, health goals, and other factors.

In general, your diet should consist of:
- **~50% Carbohydrate** (25% or less from added sugars)
- **~20% Protein** (~50 g/d)
- **~30% Fat** (less than 10% saturated)

**For carbohydrates**
- Make half your grains whole
- Vary your veggies
- Focus on fruits

**Go lean with protein**
- Choose lean, low-fat meats and poultry; choose more fish, beans, peas, nuts and seeds
- Choose low-fat or fat-free milk, yogurts, and other milk products

**For fats**
- Make most sources from fish, nuts, and vegetable oils
- Limit solid fats like butter, margarine, shortening, and lard
Eat a balanced whole foods diet especially *fruits* and *veggies* to meet your basic nutrient needs.
For the next week, drink 8 glasses of water per day and try one new fruit.
Grains, as we have heard, make up an important part of our diets. So what exactly is a grain?
Grains are actually the seeds of various types of cereal grasses. The seed is the edible portion of the plant, but it requires cooking or processing before it can be eaten.

After harvesting, the grain seeds are either planted or eaten. Nutrients in these seeds supply nourishment for a new plant—and for those who eat them.

A grain kernel or seed consists of three parts:

The Outer Shell is a coarse layer. It is called the bran and it protects the grain.
The Inside layer of the grain is known as the endosperm.
The Middle layer is the germ. It’s a small but important part of the grain that sprouts when planted.

Bran: contains fiber, B vitamins, protein, and trace minerals.
Endosperm: this “energy storehouse” contains mostly carbohydrate and some protein and small amounts of B vitamins.
Germ: contains B vitamins, vitamin E, trace minerals, and phytonutrients (substances in plants that have health-protective effects).

Parts of a Grain

- Bran: “Outer shell” protects seed, fiber, B vitamins, trace minerals
- Endosperm: provides energy, carbohydrates, protein
- Germ: nutrient storehouse, antioxidants, vitamin F, vitamin E, healthy fats
• After grains are harvested from the field, the seed is removed from the chaff (husks).
• The seeds are ground in a mill to make flour:
  Whole grain flour is made when all the components of the grain are milled (e.g., whole wheat flour). Foods made from this flour are “whole grain.”
  Whole grain flours contain all the nutrients in the three layers of the grain.
  With refined, or all purpose flour, the bran and germ are stripped away, so only the endosperm is milled. This produces a fine, white flour. **When the bran and germ are removed, fiber and some nutrients are lost in the refining process.**

Wheat flour is the most common flour in the U.S. Different strains of wheat and different growing seasons affect the properties of wheat and how it is used (e.g., hard red winter wheat is best for breads).
Whole grain flours are coarse and darker in color. You can see the flecks of bran. Breads made from whole grain flour are denser and have a nutty flavor.
Refined grains products are often *enriched* to restore key nutrients (e.g., thiamin, niacin, riboflavin, and iron) that are lost with the germ and bran during the refining process. Enriched grains are also fortified with folic acid.
Grains, especially whole grains, are recognized as an essential for good health. Research has clearly shown that people who eat whole grains as part of a healthy diet have a reduced risk of chronic diseases. Whole grains are nutrient-rich, providing many key nutrients – vital for the health and maintenance of our bodies. Beyond good nutrition, whole grains are tasty, satisfying (leave you feeling more full, along with protein), convenient, and easy to prepare.

Gram for gram, carbohydrates contain half the calories found in fat. Most grain foods are naturally low in fat and cholesterol. Grain-based foods themselves are not “fattening” – toppings, sauces, and fillings are what add calories and fat.
Whole grains have all the health benefits of grains plus more!

While whole grains have been viewed primarily as a source of fiber, there is much more.

As we pointed out earlier, whole grains contain B Vitamins, Trace Minerals, Carbohydrates, Protein, Plant Stanols and Sterols, and e health – all of which have important health benefits. Whole grains also contain Magnesium—a mineral important for bone-building and helping our bodies use energy stored in muscles.
Grains have been a staple in the diet for centuries because they supply key nutrients needed for life and good health on a daily basis.

**Carbohydrates** are the body’s fuel for life.
**B vitamins** help your body use food energy—like spark plugs in a car.
**Trace minerals** perform many important roles in supporting our health.
- Iron: carries oxygen to every cell in the body
- Zinc: healing, growth
- Copper: for healthy blood vessels, heart tissue, and bones

The brain, heart, and nervous system need a constant supply of carbohydrates to keep you moving, breathing, and thinking.
All grain products are fortified with folic acid, a B vitamin associated with reduced risk for birth defects.
Dietary Fiber refers to non-digestible (insoluble) food plant carbohydrates found in whole grains and soluble fiber found in fruits, vegetables, dry beans and peas, and cereals. Added Fiber refers to fiber added to foods during food processing. Total Fiber is the sum of Dietary Fiber and Added Fiber.

Fiber is best known for helping to keep food moving efficiently through your body. This is only one of the many ways fiber contributes to good health.

- **Heart disease**: Fiber may aid in the prevention of heart disease by lowering your cholesterol.
- **Diabetes**: Fiber helps control blood sugar levels for people with diabetes.
- **Digestive Problems**: Adequate amounts of fiber from foods can help prevent constipation and hemorrhoids.
- **Weight Gain**: A high-fiber eating plan is lower in calories and tends to make you feel full faster.

The recommended daily amount of fiber is 25 grams for women and 38 grams for men. After age 50, your daily fiber needs drop to 21 grams for women and 30 grams for men. You can meet your daily fiber needs with 2 cups of fruits and 2 ½ cups of vegetables every day, along with whole grains and beans. Add vegetables to stews and casseroles and add oats to meat loaf, breads and cookies. Add fruit to cereal or eat it as a snack and in salads.

Don’t overdo your fiber intake. Eating more than 50 to 60 grams of fiber in a day can also lower the absorption of other vitamins and minerals that occurs during digestion. If you’re planning to increase your fiber intake, do so gradually; the bacteria in your stomach and intestines need time to adjust. If you add more fiber to your diet too quickly or consume too much on a regular basis you may end up with gas, diarrhea, cramps and bloatening.
Long-standing and emerging science tells us that the benefits of whole grain really add up. Whole grains…
Reduce the risk for heart disease.
Help reduce the risk of some types of cancers, especially cancers of the stomach and colon.
May play a role in reducing risk for diabetes. For people with diabetes, whole grains may help maintain blood sugar and insulin levels in the normal range.
Help keep you regular and your digestive tract running smoothly.
Help fill you up, not out, especially as you age; important for weight management.

The health benefits of whole grains come from the "whole grain package", not just from fiber or individual nutrients.
An important point to remember: Fiber and whole grain are not necessarily synonymous. Fiber is important for good health, but, as we've seen, fiber is only one of the many nutrients found in whole grain.
While some whole grain foods will not be high in fiber, they still provide the powerful whole grain package with its health promoting benefits.
Different types of whole grain (wheat, oats, corn, rice, barley etc) have varying fiber contents. Grain foods that are considered “high fiber” may not be whole grain. For example, many high fiber foods, such as bran cereals, get their fiber from the bran but do not include the nutrient-rich germ portion of the grain.
It is rare to find a whole grain food with more than 4 grams of fiber, unless bran is added.
Fiber is not a good indicator of whole grain because the fiber content of different whole grains varies based on the proportions of bran, germ, and endosperm naturally occurring in the grain kernel.
Looking for at least “3 grams of fiber” in the Nutrition Facts panel can eliminate many whole grain options.
Whole grain foods also contain moisture and other ingredients, which can affect the fiber level.

---

### Whole Grain Fiber Facts

<table>
<thead>
<tr>
<th>Whole Grain Doesn’t Mean High Fiber</th>
<th>High Fiber Doesn’t Mean Whole Grain</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Whole grain foods provide 1-4 grams of fiber per serving</td>
<td>• Some high-fiber grain foods are not whole grain</td>
</tr>
<tr>
<td>• Contain the whole grain package</td>
<td></td>
</tr>
</tbody>
</table>

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Whole grain foods also contain moisture and other ingredients, which can affect the fiber level.
The logical place for most of us to look for whole grain is on the product’s package. Look at these commonly used package terms. Which of these terms tells you it’s whole grain? Answer: none of these terms guarantees a whole grain product. Foods with these names may actually contain little or no whole grains. Let’s look at what each of these terms really means:

- **Multigrain** refers only to the fact that more than one grain is used in the product recipe.
- **100% Wheat** refers to the fact that wheat is the only grain used. It does not reveal whether the wheat is whole grain.
- **Cracked Wheat** means the grain kernel is broken into coarse, medium, or fine fragments.
- **Organic** refers to the method of farming and processing foods. This is unrelated to whether a product is whole grain.
- **Pumpernickel** is coarse, dark bread made with a mix of rye and wheat flours. It may or may not be made with whole grain flours.
- **Stone Ground** refers to a technique for grinding grains. It usually means the grain is coarser and the germ is often intact, but the bran portion is generally not included.
- **Bran** means that the bran portion of the grain is a key component of the product and may not contain any of the germ portion. Products with added bran (e.g., bran cereals) or bran alone (e.g., oat bran) are not considered whole grain because they do not contain all three portions of the grain.

Be aware that a “healthy” sounding name—on the product label or in the ingredient list—doesn’t necessarily mean it’s whole grain. You’ll need to look at the label or look for whole-grain stamps to help you choose the real whole-grain.
Another way to find whole grain foods is to look at the ingredient list.
Pick the foods that list a whole grain near the top of the ingredients list, such as whole oats, whole wheat, or whole grain corn.
The phrase “whole grain” or “whole” before a grain’s name in the ingredient list means that it includes all parts of the grain kernel.
Color is not a sign of whole grains; brown color may come from caramel coloring, not whole grains (e.g., pumpernickel and some rye products).
Some foods may still be a “good” source of whole grain if several different whole grains are listed within the list of ingredients.

Additional information:
Cereal
Look for “whole grain” on the front of the product.
“Whole grain” or “whole” is listed in front of wheat, oats, rice, corn, barley, or other grains as the first ingredient.
Oats are always whole, regardless of whether they’re rolled, instant, fine- or coarse-cut.
Bread products
Look for “whole wheat” and/or “whole grain” in the product’s name.
A whole grain flour should be listed first; “wheat flour” is not whole grain.
If several flours are used, the majority should be whole grain.
Rice and pasta
Brown rice is the only whole-grain rice.
Semolina is made from refined wheat; look for products made from whole wheat flour.
Some pastas are made with a mix of whole wheat and white flours.
Another clue for finding foods rich in whole grains is this health claim on the package. This government-approved permitted statement describes a connection between a nutrient and disease. The claim is usually in a prominent place on the front of the product’s package label.

Not all whole grain foods will display this health claim—it is up to the manufacturer.

To make a whole grain health claim, foods must meet these requirements:
- Contain all portions of the grain kernel
- Contain 51 percent or more of whole grains by weight per reference amount customarily consumed.
- Be low in fat, saturated fat, and cholesterol.
More products are making it easier for you to find the whole grain. Some manufacturers have added a whole grain statement or symbol on their food products to help consumers easily spot whole grain products.

The Whole Grains Council developed the Whole Grain Stamps to help educate consumers and encourage them to incorporate more whole grain foods into their diet. Some manufacturers, including General Mills, are using the Whole Grain Council Stamps on their products to help consumers find whole grains. General Mills has made it easy to find whole grains. Look for these symbols on the front of whole grain products made by General Mills. The Whole Grain Guarantee from General Mills guarantees that every box of Big G cereal has at least 8 grams (a half serving) of whole grain per serving.
So do you know how to find foods that are the best sources of fiber? Let’s see!

NOTE TO FACILITATOR: Prior to activity, check fiber content to ensure proper order. If needed, refer to table in activity document for guidance.
Each week, for the next four weeks, try a new whole grain food.
The Basic Nutrients

Key Point Recap

- IN: A healthy diet has a balance of carbohydrates, protein and fat
- IN: “Vary your veggies” and “Focus on fruits”
- IN: “Make half your grains whole”
- IN: Get enough fiber
- Watch out for packaging health claims
Segue: Let’s see how we can apply our knowledge about the basic nutrients to learning how to read and understand Nutrition Facts labels.
Activity: Fiber Line-up

Time
20 minutes (40 minutes for both versions)

Objective
➢ To learn which foods are higher or lower in fiber

Equipment Needed
➢ Computer, projector and screen (or white wall space) for PowerPoint presentation

Materials Needed
➢ paper
➢ note cards
➢ pens or pencils
➢ can of black beans
➢ can of refried beans
➢ jar of peanut butter
➢ bottle of orange juice
➢ bottle of fruit drink
➢ can of pineapple
➢ raisins
➢ frosted flakes
➢ shredded wheat
➢ Fiber 1 cereal
➢ whole wheat bread
➢ white bread
➢ saltine crackers
➢ optional: commercials/ads about fiber

Preparation
1. Discuss or show commercials/ads about fiber and its benefits using the information below. Alternatively, if meeting in advance with participants, ask them to bring in articles/ads about fiber benefits and/or benefits of dairy and soy products.

   • The recommended dietary fiber intake is 20-25 grams per day. Initially, some individuals will find it challenging to achieve this level of intake. However, making fiber-rich food choices more often will move people toward this goal and is likely to confer significant health benefits.
   • The majority of servings from the fruit group should come from whole fruit (fresh, frozen, canned, dried) rather than juice. Increasing the proportion of fruit that is eaten in the form of whole fruit rather than juice is desirable to increase fiber intake. However, inclusion of some juice, such as orange juice, can help meet recommended levels of potassium intake.
   • Legumes—such as dry beans and peas—are especially rich in fiber and should be consumed several times per week. They are considered part of both the vegetable group and the meat and beans group as they contain nutrients found in each of these food groups.
   • Consuming at least half the recommended grain servings as whole grains is important, for all ages, at each calorie level, to meet the fiber recommendation. Consuming at least 3 ounce-equivalents of whole grains per day can reduce the risk of coronary heart disease, may help with weight maintenance, and may lower risk for other chronic diseases. Thus, at lower calorie levels, adults should consume more than half (specifically, at least 3 ounce-equivalents) of whole grains per day, by substituting whole grains for refined grains. (For examples, refer to “Food Sources of Dietary Fiber” Table from U.S. Department of Health & Human Services Dietary Guidelines web site provided with this activity document.)
2. Provide various food product packages (see Materials Needed section below) or ask participants to bring packages to class.

Presentation

1. Ask participants to line up products in order of least to most fiber (per serving), as a group, **without** examining the packages. For added interest and participation, draw name cards to call down one participant at a time to place the next item you present in the line-up.
2. Have participants attach cards with “Most Fiber” and “Least Fiber” to the ends of the line-up.
3. Ask participants to record their list on paper.
4. Ask participants to read the actual fiber grams on the packages and re-order their list accordingly. *Note: For additional math emphasis, use gram beam balances (if available) and ask participants to note/calculate measurements.*
5. Discuss findings as a class.

Option 2

Repeat the same activity, but this time use dairy products and dairy substitutes. Repeat the process twice, once to order by fat, and once to order by sugar.

List of potential dairy and dairy substitute products:

- □ Skim/Non-fat Milk
- □ 1% Milk
- □ 2% Milk
- □ Whole Milk
- □ Half and Half
- □ Soy Milk
- □ Low-fat Soy Milk
- □ Rice Milk
- □ Almond Milk
- □ Chocolate Milk
- □ Plain Yogurt
- □ Fruit-Flavored Yogurt

Acknowledgements:
Adapted with permission from the HEADS UP project © 2008 University of Texas Health Science Center at Houston
Written by Heather Hochberg-Garrett, MPH, RD, LD, The University of Texas Health Science Center at Houston
Edited by Nathalie Sessions, The University of Texas Health Science Center at Houston
U.S. Department of Health & Human Services Dietary Guidelines web site:
### Food Sources of Dietary Fiber

Food Sources of Dietary Fiber ranked by grams of dietary fiber per standard amount; also calories in the standard amount. (All are ≥10% of AI for adult women which is 25 grams/day.)

<table>
<thead>
<tr>
<th>Food, Standard Amount</th>
<th>Dietary Fiber (g)</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy beans, cooked, ½ cup</td>
<td>9.5</td>
<td>128</td>
</tr>
<tr>
<td>Bran ready-to-eat cereal (100%), ½ cup</td>
<td>8.8</td>
<td>78</td>
</tr>
<tr>
<td>Kidney beans, canned, ½ cup</td>
<td>8.2</td>
<td>109</td>
</tr>
<tr>
<td>Split peas, cooked, ½ cup</td>
<td>8.1</td>
<td>116</td>
</tr>
<tr>
<td>Lentils, cooked, ½ cup</td>
<td>7.8</td>
<td>115</td>
</tr>
<tr>
<td>Black beans, cooked, ½ cup</td>
<td>7.5</td>
<td>114</td>
</tr>
<tr>
<td>Pinto beans, cooked, ½ cup</td>
<td>7.7</td>
<td>122</td>
</tr>
<tr>
<td>Lima beans, cooked, ½ cup</td>
<td>6.6</td>
<td>108</td>
</tr>
<tr>
<td>Artichoke, globe, cooked, 1 each</td>
<td>6.5</td>
<td>60</td>
</tr>
<tr>
<td>White beans, canned, ½ cup</td>
<td>6.3</td>
<td>154</td>
</tr>
<tr>
<td>Chickpeas, cooked, ½ cup</td>
<td>6.2</td>
<td>135</td>
</tr>
<tr>
<td>Great northern beans, cooked, ½ cup</td>
<td>6.2</td>
<td>105</td>
</tr>
<tr>
<td>Cowpeas, cooked, ½ cup</td>
<td>5.6</td>
<td>100</td>
</tr>
<tr>
<td>Soybeans, mature, cooked, ½ cup</td>
<td>5.2</td>
<td>149</td>
</tr>
<tr>
<td>Bran ready-to-eat cereals, various, ~1 oz</td>
<td>2.6-5.0</td>
<td>90-108</td>
</tr>
<tr>
<td>Crackers, rye wafers, plain, 2 wafers</td>
<td>5.0</td>
<td>74</td>
</tr>
<tr>
<td>Sweet potato, baked, with peel, 1 medium (146 g)</td>
<td>4.8</td>
<td>131</td>
</tr>
<tr>
<td>Asian pear, raw, 1 small</td>
<td>4.4</td>
<td>51</td>
</tr>
<tr>
<td>Green peas, cooked, ½ cup</td>
<td>4.4</td>
<td>67</td>
</tr>
<tr>
<td>Whole-wheat English muffin, 1 each</td>
<td>4.4</td>
<td>134</td>
</tr>
<tr>
<td>Pear, raw, 1 small</td>
<td>4.3</td>
<td>81</td>
</tr>
<tr>
<td>Bulgur, cooked, ½ cup</td>
<td>4.1</td>
<td>76</td>
</tr>
<tr>
<td>Mixed vegetables, cooked, ½ cup</td>
<td>4.0</td>
<td>59</td>
</tr>
<tr>
<td>Raspberries, raw, ½ cup</td>
<td>4.0</td>
<td>32</td>
</tr>
<tr>
<td>Sweet potato, boiled, no peel, 1 medium (156 g)</td>
<td>3.9</td>
<td>119</td>
</tr>
<tr>
<td>Blackberries, raw, ½ cup</td>
<td>3.8</td>
<td>31</td>
</tr>
<tr>
<td>Potato, baked, with skin, 1 medium</td>
<td>3.8</td>
<td>161</td>
</tr>
<tr>
<td>Soybeans, green, cooked, ½ cup</td>
<td>3.8</td>
<td>127</td>
</tr>
<tr>
<td>Stewed prunes, ½ cup</td>
<td>3.8</td>
<td>133</td>
</tr>
<tr>
<td>Figs, dried, ¼ cup</td>
<td>3.7</td>
<td>93</td>
</tr>
<tr>
<td>Food, Standard Amount</td>
<td>Dietary Fiber (g)</td>
<td>Calories</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dates, ¼ cup</td>
<td>3.6</td>
<td>126</td>
</tr>
<tr>
<td>Oat bran, raw, ¼ cup</td>
<td>3.6</td>
<td>58</td>
</tr>
<tr>
<td>Pumpkin, canned, ½ cup</td>
<td>3.6</td>
<td>42</td>
</tr>
<tr>
<td>Spinach, frozen, cooked, ½ cup</td>
<td>3.5</td>
<td>30</td>
</tr>
<tr>
<td>Shredded wheat ready-to-eat cereals, various, ~1 oz</td>
<td>2.8-3.4</td>
<td>96</td>
</tr>
<tr>
<td>Almonds, 1 oz</td>
<td>3.3</td>
<td>164</td>
</tr>
<tr>
<td>Apple with skin, raw, 1 medium</td>
<td>3.3</td>
<td>72</td>
</tr>
<tr>
<td>Brussels sprouts, frozen, cooked, ½ cup</td>
<td>3.2</td>
<td>33</td>
</tr>
<tr>
<td>Whole-wheat spaghetti, cooked, ½ cup</td>
<td>3.1</td>
<td>87</td>
</tr>
<tr>
<td>Banana, 1 medium</td>
<td>3.1</td>
<td>105</td>
</tr>
<tr>
<td>Orange, raw, 1 medium</td>
<td>3.1</td>
<td>62</td>
</tr>
<tr>
<td>Oat bran muffin, 1 small</td>
<td>3.0</td>
<td>178</td>
</tr>
<tr>
<td>Guava, 1 medium</td>
<td>3.0</td>
<td>37</td>
</tr>
<tr>
<td>Pearled barley, cooked, ½ cup</td>
<td>3.0</td>
<td>97</td>
</tr>
<tr>
<td>Sauerkraut, canned, solids, and liquids, ½ cup</td>
<td>3.0</td>
<td>23</td>
</tr>
<tr>
<td>Tomato paste, ¼ cup</td>
<td>2.9</td>
<td>54</td>
</tr>
<tr>
<td>Winter squash, cooked, ½ cup</td>
<td>2.9</td>
<td>38</td>
</tr>
<tr>
<td>Broccoli, cooked, ½ cup</td>
<td>2.8</td>
<td>26</td>
</tr>
<tr>
<td>Parsnips, cooked, chopped, ½ cup</td>
<td>2.8</td>
<td>55</td>
</tr>
<tr>
<td>Turnip greens, cooked, ½ cup</td>
<td>2.5</td>
<td>15</td>
</tr>
<tr>
<td>Collards, cooked, ½ cup</td>
<td>2.7</td>
<td>25</td>
</tr>
<tr>
<td>Okra, frozen, cooked, ½ cup</td>
<td>2.6</td>
<td>26</td>
</tr>
<tr>
<td>Peas, edible-podded, cooked, ½ cup</td>
<td>2.5</td>
<td>42</td>
</tr>
</tbody>
</table>

Source: ARS Nutrient Database for Standard Reference, Release 17. Foods are from single nutrient reports, which are sorted either by food description or in descending order by nutrient content in terms of common household measures. The food items and weights in these reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted.
## Understanding the Nutrition Facts Label

### Nutrition Facts

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories 250</td>
<td>10%</td>
</tr>
<tr>
<td>Calories from Fat 110</td>
<td>18%</td>
</tr>
<tr>
<td>Total Fat 12g</td>
<td>18%</td>
</tr>
<tr>
<td>Saturated Fat 3g</td>
<td>15%</td>
</tr>
<tr>
<td>Trans Fat 1.5g</td>
<td></td>
</tr>
<tr>
<td>Cholesterol 30mg</td>
<td>10%</td>
</tr>
<tr>
<td>Sodium 470mg</td>
<td>20%</td>
</tr>
<tr>
<td>Total Carbohydrate 31g</td>
<td>10%</td>
</tr>
<tr>
<td>Dietary Fiber 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Sugars 5g</td>
<td></td>
</tr>
<tr>
<td>Protein 5g</td>
<td></td>
</tr>
</tbody>
</table>

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.
Understanding the Nutrition Facts Label

[Image of a Nutrition Facts label]

Nutrition Facts
Serving Size 1 tsp (5 ml)
Servings Per Container 10

Amount Per Serving
Calories 250
Calories from Fat 110

Total Fat 12g 18%
Saturated Fat 3g 15%
Cholesterol 0mg 0%
Sodium 470mg 20%
Total Carbohydrate 31g 10%
Dietary Fiber 5g 2%
Sugars 1g
Protein 5g

Vitamin A 6%
Vitamin C 2%
Calcium 10%
Iron 0%

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

Using the Food Label to Make Healthy Eating Choices

While we should all focus on eating foods without labels (like fresh fruits and vegetables), many more foods today are packaged.

One of the most important parts of nutrition education is helping people understanding the Nutrition Facts label so we can help maximize the health benefits of our food choices, like we saw with the family in the video.
Key Label Questions

- How many calories am I actually eating
- Is that number low or high?
- What nutrients should I limit or get enough of and why?
- What is %DV?
- How does %DV help me with making healthy food choices?

Here are the key points we’ll address in this presentation.
Let’s begin by looking at the label most of us see. Each of us uses the label for different reasons.

If you’re like most people, you probably look at calories and fat first.

But does the Nutrition Facts label educate you? Probably not; and it was never meant to. It’s goal is to provide information (Nutrition Facts), but not to teach people how to interpret them; they need more guidance to make informed decisions.

The label doesn’t teach nutrition but is a valuable nutrition education tool.
Now, take a look at this educational version of the Nutrition Facts label. It identifies the 6 basic messages/skills for health professionals, educators and consumers.

But before going into detail, let’s just look at this label as if it only had two sections, not 6. Can you identify the two parts and how they differ?

The colored section on top (all but #5) contains product-specific information (serving size, calories, and nutrient information) that can vary with each food product.

Now look at the footnote at the bottom of the label. It contains the Daily Values for the nutrients listed and dietary advice generally consistent with the Dietary Guidelines for Americans. The footnote, which is not found on smaller product labels, never changes from product to product. We’ll discuss it more later.

Start with the Serving Size -- Look here for both the amount for one serving and the number of servings in the package.

Compare your portion size (the amount you actually eat) to the serving size listed on the panel.

So how Many Calories are you actually eating?

Many people answer this question by simply looking at the calories listed on the label? (Not you of course!)

So the first thing you want to do is to look at the serving size AND the number of servings per container; then determine the calories actually consumed.
In this example, the serving size is one cup. If you eat two cups, you are getting twice the calories, fat and other nutrients listed on the label, including the percent Daily Values which we’ll discuss more in a moment.

As you can see, the number of servings you consume determines the number of calories and nutrients you actually eat.

It’s smart to cut back on calories and fat if you are watching your weight.

Next Question: In terms of calories, what amount is low, moderate or high?
Here’s a general guide to calories.
Notice how it gives a context for determining calorie amounts based on 2,000 calories. You may need more or less than 2,000 calories per day.

40 calories is low-- is actually a nutrient content claim.
100 calories is moderate is--5% of 2,000 calories
400 calories is high-- is 20% of 2,000 calories.
What are Percent Daily Values?

You can use percent Daily Values (%DV) to help evaluate how a particular food fits into your daily meal plan.

The %DV tells you if a serving of food is high or low in a nutrient – the %DV column does not add up vertically to total 100%.

Instead, each nutrient with a %DV (Fat, Cholesterol, Sodium, Vitamins A and C, Calcium and Iron) is based on 100% of the daily requirement for that nutrient for a 2,000 calorie diet.

In this example, one serving provides 18% of the total fat you need in one day.

How can you tell if the %DV is high or low? (click to next slide)
Your Health Matters: Nutritious Eating
Understanding the Nutrition Facts Label

Use the Quick Guide – it gives you a frame of reference for deciding if a food is high or low in a nutrient.

5 percent or less is low. Aim low in total fat, saturated fat, trans fat, cholesterol and sodium. 20 percent or more is high. Aim high in vitamins, minerals and fiber.

Notice how easy it is to apply the 5/20 Quick Guide to % DV for determining highs and lows.

You can use the %DV not only for highs and lows, but also to compare claims and to make diet trade offs so that if you choose a food that’s high in a particular nutrient like saturated fat, you can balance your remaining choices for the day with foods low saturated fat.

Next question: Which nutrients should I limit and why? (click to next slide)
When we say, “Limit These Nutrients,” the goal is to stay BELOW 100% of the DV for each one of these nutrients per day.

Eating less fat and cholesterol may help reduce your risk for heart disease, high blood pressure and cancer.

Total fat includes saturated, polyunsaturated, monounsaturated and trans fat. Limit to 100 %DV or less per day.
Saturated fat and trans fat are linked to an increased risk of heart disease.
High levels of sodium can add up to high blood pressure.
Remember to aim for low percentage DV of these nutrients.

So, which nutrients do we need to get in adequate amounts? (click to next slide)
We can use the food label not only to help limit the nutrients we want to cut back on, but also to help increase those nutrients we need to consume in adequate or greater amounts.

- Eat more fiber, vitamins A and C, calcium and iron to maintain good health and help reduce your risk of certain health problems such as osteoporosis and anemia.
- Choose more fruits and vegetables to get more of these nutrients.
- Remember to aim HIGH for percentage DV of these nutrients.
- Eating enough of these nutrients can benefit your health and help reduce the risk of some diseases and conditions.
Sugar is a type of carbohydrate along with starches and fiber. The best carbohydrates to eat are whole grain breads, cereals, rice and pasta plus fruits and vegetables.

Simple carbohydrates or simple sugars occur naturally in foods such as fruit juice (fructose) or come from refined sources such as table sugar (sucrose) or corn syrup.

Although sugars have no % DV, limit your intake by comparing two products and choosing the one with the lowest amount.

To compare, look at the Nutrition Facts label to determine the TOTAL amount of sugars in a food. Note that the total amount includes both naturally-occurring sugars and sugars added to the food. In this case, the food on the left has 10 grams of sugar in one serving; the food on the right has 44 grams of sugars, 2 to 3 times the amount of sugar found in most candy bars!

So how can you tell if either of these foods has added sugars? (click to next slide)
To find if sugars and caloric sweeteners have been added, you need to look at the ingredient list.

Foods with more than one ingredient must have an ingredient list on the label. Ingredients are listed in descending order by weight. Those in the largest amounts are listed first. This information is helpful to individuals who wish to avoid or limit added sugars.

What is the difference between these two lists of ingredients regarding sugars? For Food Sample #1 listed on top, no added sugars or sweeteners are listed in the ingredients, yet 10 grams of sugars were listed on the Nutrition label. This is because, there are no added sugars, only naturally-occurring ones in this particular food.

Food Sample #2 listed on the bottom has 44 grams of sugars -- added sugar in the form of high fructose corn syrup.

If you are concerned about your intake of sugars, especially added sugars, make sure that they are not one of the first two or three ingredients listed.

Some other names for sugar are: corn syrup, high-fructose corn syrup, fruit juice concentrate, maltose, dextrose, sucrose, honey, and maple syrup.
Let's put your new label knowledge to the test in a friendly round of Food Fights!
Examine your pantry this week. Note which items to replace with healthier options.
Nutrition Facts Label

Key Point Recap

➢ Start with the serving size

➢ Check out the total calories, fat, sugar

➢ Let the % Daily Value be your guide – low on top; high on bottom

➢ Read the list of ingredients

➢ Eat mostly foods without labels like fresh fruits and vegetables
Segue: So now that you know about energy balance, portion distortion versus healthy eating, the basic nutrients and how to read and understand food labels, it's time to do some meal planning!
Activity: Food Fights! Understanding Nutrition Facts Labels

Time
30 minutes

Objective
➢ To gain skills in label reading and find associations between the numbers on labels and healthfulness

Equipment Needed
□ Computer, projector and screen (or white wall space) for PowerPoint presentation
□ Calculators

Materials Needed
□ Presentation slide and/or poster and/or copy of “Nutrition Facts Food Label” handout for each participant (OPTIONAL: sample containers from “Fiber Fat Sugar Line-ups” Activity could also be used)
□ Copy of “Food Fights Worksheet” for each participant
□ Pens or pencils

Preparation
1. Review all activity documents.

Presentation
1. Read over the Nutrition Facts Food Label handout and discuss with class using PowerPoint slides provide on Instructor CD.
2. Ask participants to complete the Food Fight Worksheet.
3. Discuss the answers with the class. Go over any problems that were difficult for participants and discuss how to figure them out.
4. Ask participants what they learned from this exercise and discuss.

Acknowledgements:
Adapted with permission from the HEADS UP project © 2008 University of Texas Health Science Center at Houston
Written by Heather Hochberg-Garrett, MPH, RD, LD, Edited by Nathalie Sessions, The University of Texas Health Science Center at Houston
U.S. Food and Drug Administration web site: [www.cfsan.fda.gov/~dms/foodlab.html](http://www.cfsan.fda.gov/~dms/foodlab.html)
Nutrition Facts Food Label

Sample label from Macaroni & Cheese

1. Start Here

2. Check Calories

Calories 250

3. Limit these Nutrients

Total Fat 12g
Saturated Fat 3g
Trans Fat 3g
Cholesterol 30mg
Sodium 470mg
Total Carbohydrate 31g
Dietary Fiber 0g
Sugars 5g
Protein 5g

4. Get Enough of these Nutrients

Vitamin A 4%
Vitamin C 2%
Calcium 20%
Iron 4%

5. Footnote

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

6. Quick Guide to % DV

• 5% or less is Low
• 20% or more is High

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Label information from U.S. Food and Drug Administration web site: www.cfsan.fda.gov/~dms/foodlab.html
Overview of Nutrition Facts Label

1. Serving Size
   - The size of the serving influences the number of calories and amount of nutrients
   - Pay attention to the serving size, especially how many servings there are in the food package
   - Then ask yourself, "How many servings am I consuming?" (e.g. 1/2 serving, 1 serving, or more)

2. Calories (and Calories from Fat)
   - Calories measure how much energy you get from a serving of food
   - Remember: the number of servings you consume determines the number of calories you actually eat (your portion amount)
   - Eating too many calories per day is linked to overweight and obesity.

   Amount Per Serving
   Calories 250
   Calories from Fat 110

3. The Nutrients: How Much?

   3. Limit These Nutrients
      - Eating too much fat, saturated fat, trans fat, cholesterol, or sodium may increase your risk of certain chronic diseases, like heart disease, some cancers, or high blood pressure.
      **Important:** Health experts recommend that you keep your intake of saturated fat, trans fat and cholesterol as low as possible as part of a nutritionally balanced diet.

   4. Get Enough of These
      - Most Americans don't get enough dietary fiber, vitamin A, vitamin C, calcium, and iron in their diets.
      - Eating enough of these nutrients can improve your health and help reduce the risk of some diseases.
      **Important:** You can use the Nutrition Facts label not only to help limit those nutrients you want to cut back on but also to increase those nutrients you need to consume in greater amounts.

   Dietary Fiber 0g 0%
   Vitamin A 4%
   Vitamin C 2%
   Calcium 20%
   Iron 4%

4. Understanding the Footnote on the Bottom of the Nutrition Facts Label
   - % DVs are based on a 2,000 calorie diet
   - Look at the amounts circled in red in the footnote - these are the Daily Values (DV) for each nutrient listed
   - DVs are recommended levels of intakes.

5. The Percent Daily Value
   - The % DV helps you determine if a serving of food is high or low in a nutrient
   - 5% DV or less is low and
   - 20% DV or more is high

   % Daily Value
   18% 15%
   10% 20%
   10% 0%

Label information from U.S. Food and Drug Administration Web site: www.cfsan.fda.gov/~dms/foodlab.html
Food Fight! Whole Milk vs. Skim Milk

<table>
<thead>
<tr>
<th>Whole Milk Nutrition Facts</th>
<th>Skim/Nonfat Milk Nutrition Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size = 8 fl oz</td>
<td>Serving Size = 1 cup</td>
</tr>
<tr>
<td>Servings Per Container = 2</td>
<td>Servings Per Container = 16</td>
</tr>
<tr>
<td><strong>Amount Per Serving</strong></td>
<td><strong>Amount Per Serving</strong></td>
</tr>
<tr>
<td>Calories = 150</td>
<td>Calories = 80</td>
</tr>
<tr>
<td>Calories from fat = 70</td>
<td>Calories from fat = 0</td>
</tr>
<tr>
<td><strong>% Daily Value</strong>*</td>
<td><strong>% Daily Value</strong>*</td>
</tr>
<tr>
<td>Total Fat 8g</td>
<td>Total Fat 0g</td>
</tr>
<tr>
<td>12%</td>
<td>0%</td>
</tr>
<tr>
<td>Saturated Fat 5g</td>
<td>Saturated Fat 0g</td>
</tr>
<tr>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol 35mg</td>
<td>Cholesterol less than 5mg</td>
</tr>
<tr>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Sodium 125mg</td>
<td>Sodium 130mg</td>
</tr>
<tr>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Total Carbohydrate 12g</td>
<td>Total Carbohydrate 12g</td>
</tr>
<tr>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>Dietary Fiber 0g</td>
<td>Dietary Fiber 0g</td>
</tr>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Sugars 11g</td>
<td>Sugars 11g</td>
</tr>
<tr>
<td>Protein 8g</td>
<td>Protein 8g</td>
</tr>
<tr>
<td>Vitamin A 6%</td>
<td>Vitamin A 8%</td>
</tr>
<tr>
<td>● Vitamin C 4%</td>
<td>● Calcium 30%</td>
</tr>
<tr>
<td>Calcium 30%</td>
<td>Iron 0%</td>
</tr>
<tr>
<td>● Vitamin D 25%</td>
<td>Vitamin D 25%</td>
</tr>
</tbody>
</table>

* Percent Daily Values are based on a 2,000 calorie diet.

**Ingredients:** milk, vitamin D₃, vitamin E

**Ingredients:** fat free milk, vitamin A palmitate, vitamin D₃, vitamin E

1. How many fluid ounces (fl oz) are in one cup? _________________
2. Fill in the table below for each 8 oz. serving of milk.

<table>
<thead>
<tr>
<th>Calories</th>
<th>Whole Milk</th>
<th>Skim Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturated fat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Considering which nutrients you want to decrease in your diet, which would be the better choice? _________________

4. Is whole milk a Go, Slow, or Whoa food? Why? ____________________________________________

5. Is skim milk a Go, Slow, or Whoa food? Why? ____________________________________________
Food Fight! Tropicana Orange Juice vs. Sunny D

<table>
<thead>
<tr>
<th>Tropicana Pure Premium Orange Juice (no pulp)</th>
<th>Sunny D Tangy Original Style</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutrition Facts</strong></td>
<td><strong>Nutrition Facts</strong></td>
</tr>
<tr>
<td>Serving Size = 8 fl oz</td>
<td>Serving Size = 8 fl oz</td>
</tr>
<tr>
<td>Servings Per Container = 1</td>
<td>Servings Per Container = 8</td>
</tr>
<tr>
<td><strong>Amount Per Serving</strong></td>
<td><strong>Amount Per Serving</strong></td>
</tr>
<tr>
<td>Calories = 110</td>
<td>Calories = 120</td>
</tr>
<tr>
<td>Calories from fat = 0</td>
<td>Calories from fat = 0</td>
</tr>
<tr>
<td>% Daily Value</td>
<td>% Daily Value</td>
</tr>
<tr>
<td>Total Fat 0g</td>
<td>Total Fat 0g</td>
</tr>
<tr>
<td>Saturated Fat 0g</td>
<td>Saturated Fat 0g</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>Trans Fat 0g</td>
</tr>
<tr>
<td>Monounsaturated Fat 0g</td>
<td>Monounsaturated Fat 0g</td>
</tr>
<tr>
<td>Polyunsaturated Fat 0g</td>
<td>Polyunsaturated Fat 0g</td>
</tr>
<tr>
<td>Cholesterol 0mg</td>
<td>Cholesterol 0mg</td>
</tr>
<tr>
<td>Sodium 0mg</td>
<td>Sodium 190mg</td>
</tr>
<tr>
<td>Total Carbohydrate 26g</td>
<td>Total Carbohydrate 29g</td>
</tr>
<tr>
<td>Dietary Fiber 0g</td>
<td>Dietary Fiber 0g</td>
</tr>
<tr>
<td>Sugars 22g</td>
<td>Sugars 27g</td>
</tr>
<tr>
<td>Protein 2g</td>
<td>Protein 0g</td>
</tr>
<tr>
<td>Vitamin A 0%</td>
<td>Vitamin A 0%</td>
</tr>
<tr>
<td>Vitamin C 50%</td>
<td>Vitamin C 100%</td>
</tr>
<tr>
<td>Calcium 2%</td>
<td>Calcium 0%</td>
</tr>
<tr>
<td>Thiamin 0%</td>
<td>Iron 0%</td>
</tr>
<tr>
<td>Vitamin D 0%</td>
<td>Phosphorus 0%</td>
</tr>
<tr>
<td>Folate 15%</td>
<td></td>
</tr>
<tr>
<td>* Percent Daily Values are based on a 2,000 calorie diet.</td>
<td></td>
</tr>
<tr>
<td>Ingredients: 100% pure and natural orange juice</td>
<td>Ingredients: water, high fructose corn syrup and 2% or less of each of the following: concentrated juices (orange, tangerine, apple, lime, grapefruit), citric acid, ascorbic acid (vitamin C), thiamin hydrochloride (vitamin B1), natural flavors, modified corn starch, canola oil, sodium citrate, cellulose gum, xanthan gum, sodium hexametaphosphate, sodium benzoate to protect flavor, yellow #5, yellow #6</td>
</tr>
</tbody>
</table>

1. Fill in the table below for each 8 oz. serving of Tropicana and Sunny D.

<table>
<thead>
<tr>
<th></th>
<th>Tropicana</th>
<th>Sunny D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturated fat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. What percent of the orange juice and Sunny D is actually fruit juice? ________________

3. Do you think the orange juice a Go, Slow, or Whoa food? Why? __________________________

4. Do you think the Sunny D is a Go, Slow, or Whoa food? Why? __________________________
Food Fight! Shredded Wheat Cereal vs. Low-fat Granola

### Post Shredded Wheat Cereal

**Nutrition Facts**

- **Serving Size**: 49 g
- **Servings Per Container**: 7

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories from fat = 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong>: 170</td>
<td><strong>% Daily Value</strong></td>
</tr>
<tr>
<td>Total Fat 1g</td>
<td>2%</td>
</tr>
<tr>
<td>Saturated Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Monounsaturated Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Polyunsaturated Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Total Carbohydrate 40g</td>
<td>13%</td>
</tr>
<tr>
<td>Dietary Fiber 6g</td>
<td>24%</td>
</tr>
<tr>
<td>Sugars 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Protein 6g</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Ingredients:** whole grain wheat, BHT

### Kellogg’s Low-Fat Granola without Raisins

**Nutrition Facts**

- **Serving Size**: 1/2 cup (49g)
- **Servings Per Container**: 10

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories from fat = 25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong>: 190</td>
<td><strong>% Daily Value</strong></td>
</tr>
<tr>
<td>Total Fat 2.5g</td>
<td>4%</td>
</tr>
<tr>
<td>Saturated Fat 5g</td>
<td>3%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Monounsaturated Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Polyunsaturated Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium 110mg</td>
<td>5%</td>
</tr>
<tr>
<td>Total Carbohydrate 40g</td>
<td>13%</td>
</tr>
<tr>
<td>Dietary Fiber 3g</td>
<td>12%</td>
</tr>
<tr>
<td>Sugars 14g</td>
<td>5%</td>
</tr>
<tr>
<td>Protein 4g</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Ingredients:** whole oats, whole grain wheat, sugar, corn syrup, rice, almonds, molasses, modified corn starch, high fructose corn syrup, palm oil, salt, cinnamon, non-fat dry milk, natural and artificial flavor, polyglycerol esters of mono- and diglycerides, malt flavor, niacinamide, zinc oxide, ascorbic acid (vitamin C), pyridoxine hydrochloride (vitamin B6), reduced iron, guar gum, BHT (preservative), riboflavin (vitamin B2), vitamin A (palmitate), folic acid, thiamin hydrochloride (vitamin B1), vitamin B12, vitamin D

1. Fill in the table below for each serving of cereal.

<table>
<thead>
<tr>
<th></th>
<th>Shredded Wheat</th>
<th>Granola</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturated fat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Considering which nutrients you want to decrease in your diet, which would be the better choice? ________________

3. Do you think the shredded wheat is a Go, Slow, or Whoa food? Why? __________________________

4. Do you think the granola is a Go, Slow, or Whoa food? Why? ________________________________
1. How many fluid ounces are in one cup? 8

2. Fill in the table below for each 8 oz. serving of milk.

<table>
<thead>
<tr>
<th></th>
<th>Whole Milk</th>
<th>Skim Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>150 cal</td>
<td>80 cal</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>5 g</td>
<td>0 g</td>
</tr>
<tr>
<td>Sugars</td>
<td>11 g</td>
<td>11 g</td>
</tr>
<tr>
<td>Calcium</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

3. Considering which nutrients you want to increase in your diet, and which nutrients you want to decrease in your diet, which would be the better choice? Skim milk

4. Do you think the whole milk is a Go, Slow, or Whoa food? Why? WHOA; higher in calories and fat

5. Do you think the skim milk is a Go, Slow, or Whoa food? Why? GO; lower in calories and fat
Food Fight! Tropicana Orange Juice vs. Sunny D

Answer Sheet

1. Fill in the table below for each 8 oz. serving of Tropicana and Sunny D.

<table>
<thead>
<tr>
<th></th>
<th>Tropicana</th>
<th>Sunny D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>110 cal</td>
<td>120 cal</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>0 g</td>
<td>0 g</td>
</tr>
<tr>
<td>Sugars</td>
<td>22 g</td>
<td>27 g</td>
</tr>
<tr>
<td>Calcium</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

2. What percent of the Tropicana orange juice and Sunny D is actually fruit juice?
   Orange juice: 100% juice; Sunny D: 2% or less of several fruit juices

3. Do you think the Tropicana orange juice a Go, Slow, or Whoa food? Why?
   GO or SLOW; 100% juice; lower in sugars; less ingredients

4. Do you think the Sunny D is a Go, Slow, or Whoa food? Why?
   WHOA; higher in sugars; more ingredients
1. Fill in the table below for each serving of cereal.

<table>
<thead>
<tr>
<th></th>
<th>Shredded Wheat</th>
<th>Granola</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>170 cal</td>
<td>190 cal</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>0 g</td>
<td>.5 g</td>
</tr>
<tr>
<td>Sugar</td>
<td>0 g</td>
<td>14 g</td>
</tr>
<tr>
<td>Fiber</td>
<td>6 g</td>
<td>3 g</td>
</tr>
</tbody>
</table>

2. Considering which nutrients you want to decrease in your diet, which would be the better choice? **Shredded Wheat**

3. Do you think the shredded wheat is a Go, Slow, or Whoa food? Why? **GO; lower in calories and fat; higher in fiber**

4. Do you think the granola is a Go, Slow, or Whoa food? Why? **SLOW; higher in calories and fat; lower in fiber**
Your Health Matters: Nutritious Eating

Meal Planning
Instructor Information Sheet: Healthy Eating on a Budget

Some people believe that healthy eating is not possible on a tight budget. Although fast food may appear to be cheaper, it is often more costly than preparing a meal at home. For instance, eating out three times per week at McDonald’s, a family of five would most likely spend over $55. However, cooking three meals at home for a family of five can be accomplished for under $25, leading to savings of $30 or more per week.

Alternatively, compare the price of a small bag of chips to an apple or a cup of grapes to two cookies, or a banana and glass of orange juice to a breakfast muffin. If you do the math, the evidence is convincing: fruits and vegetables are more economical and provide you with better nutritional value.

Thus, home cooked meals and fresh food snacks, with more nutrients and fewer calories, can lead to food budget savings and in the long term, savings in healthcare costs as well. The following strategies have been identified as successful methods to help families stock their pantry and refrigerator with healthy foods on a tight budget.

Before Leaving for the Grocery Store

Planning a weekly menu is key to saving money while eating healthy foods. Five factors to keep in mind while planning meals are:

- **Seasonal Produce:** Well-planned meals incorporate produce that is in season, which is both cheaper and fresher.

- **More Vegetables, Less Meat:** Cooks can modify recipes to replace some meat with vegetables, which are usually less expensive. Simple changes, such as from “beef stew with vegetables” to “vegetable stew with beef,” or adding beans while reducing meat can allow families to eat more vegetables while saving money.

- **Double Value:** Where possible, plan two meals from the same item, such as using half a cabbage in coleslaw and the rest in dumplings or stir fry.

- **Smorgasbord night:** A “smorgasbord meal” at the end of the week, such as stir fry, can be prepared using leftover ingredients from previous nights.

- **Coupons:** Coupons and sales can be used to help plan meals. However, coupons are beneficial only if the final price is cheaper than other brands and they are for healthful items.
Once all the meals for the week are planned, the next step is to make a list. Group items according to where they are located in the store.

At the Grocery Store

First, do not go to the store hungry. Hunger leads people to make “impulse” purchases and spend more money instead of sticking to a shopping list.

While shopping, shoppers will need to remember to look for produce items that are in season which will last the longest and be the most affordable. However, frozen, canned and dried produce (with a longer shelf life) can be used to supplement fresh fruits and vegetables. Either way, it is important to keep in mind that packaging, seasoning, and processing increase the cost of most items. It is usually cheaper to buy whole foods and chop or prepare them at home than to buy “ready-to-eat” convenience foods. For instance, whole carrots are generally less expensive than mini carrot sticks and can be chopped at home. Similarly, blocks of cheese can be sliced and grated at home, and a single large cut of meat can be divided into pieces for several meals rather than purchasing separate pieces for each meal.

When to Buy Seasonal Produce

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jun</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broccoli</td>
<td>Carrots</td>
<td>Cabbage</td>
<td>Cucumbers</td>
<td>Peas</td>
<td>Potatoes</td>
<td>Corn</td>
<td>Apples</td>
<td>Bananas</td>
<td>Cantaloupe</td>
<td>Blueberries</td>
<td>Grapes</td>
</tr>
</tbody>
</table>

Shoppers will also want to stock up on staples with a long shelf life, such as brown rice and dried beans. When selecting these items, unit pricing can be used to choose between brands and sizes of packages. The unit price is the price per ounce, pound, gallon or other unit of measure. Comparing unit prices indicates which item is the best value. Keep in mind that grocers often place the most affordable packaged items above and below eye level.
In the Kitchen

After returning from the store, fresh produce should be **properly stored** as soon as possible to prevent spoilage and decrease waste. Whole seasonal fruits and vegetables can be chopped into convenient snacks that are healthier and less expensive than chips and cookies. Cooks can also focus on using **fresh produce at the beginning of the week** before it spoils while relying on canned or frozen vegetables and fruits later in the week. A great way to save time is to **plan for leftovers** by making a large batch of food and refrigerating or freezing the extras in individual sized portions for a future meal when there is not time to cook.

Acknowledgements:
Written by Sydney Jones, Edited by Nathalie Sessions, The University of Texas School of Public Health
More Matters Web site: www.fruitsandveggiesmorematters.org
Melinda Bell, Tiffany Sellers, Joan G. Fischer, Department of Foods and Nutrition, The University of Georgia, Athens, GA, 2006,
http://www.livewellagewell.info/study/materials.htm.

See Appendix for “Top 10 Ways to Stretch Your Budget with Fruits and Veggies” handout.

See Additional Resources for web sites with affordable, healthy recipes.
Meal Planning

The Supermarket & Food Cost Comparison  

Bonus! Healthy Cooking Tips
The typical American grocery store sells more than 40,000 food choices…

This can be overwhelming for shoppers…

How do you know what the healthiest choices are?
If you think about it, most stores are set up the same way:

The outer edges of the store have mostly “Go foods”:
- Fresh fruits and vegetables in Produce;
- Lean proteins in the Fresh Meat and Seafood department; and
- Low-fat and non-fat items in the Dairy section

While the inner aisles of the store contain mostly “Whoa” foods such processed foods in cans, boxes and bags.
Always make a list

Save time and money!

First and foremost, after planning your meals for the week, always **make a list**.

Try to group items on the list according to where they are in the store.

Not only will you choose healthier items, you’ll save time and money, too!

HANDOUT: Healthy Shopping List
Navigating Tips

- **Work the edges**
- **Look high and low**
- **Learn the lingo**

Here are some strategies for navigating the store and making the healthiest choices:

**Work the edges** – like we just discussed, the healthiest food is found along the walls – Produce, Meat/Seafood, Dairy

**Look high and low** – avoid marketing traps which often place unhealthy items at eye level

**Learn the lingo** – watch out for words that make a product sound healthy – here are a few examples (see next slide)
## Label Claims

<table>
<thead>
<tr>
<th>Wording</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Whole grain” versus “Multigrain”</td>
<td>Entire grain kernel used (good choice!) versus More than one type of grain used in product</td>
</tr>
<tr>
<td>“Light” or “Lite”</td>
<td>Fat reduced by ≤50%</td>
</tr>
<tr>
<td>“Calorie Free”</td>
<td>Less than 5 calories/svg</td>
</tr>
<tr>
<td>“Fat Free”</td>
<td>Less than .5g sat fat/svg</td>
</tr>
<tr>
<td>“Sugar Free”</td>
<td>Less than .5g sugars/svg</td>
</tr>
<tr>
<td>“Excellent Source of”</td>
<td>≥ 20% DV/svg</td>
</tr>
<tr>
<td>“Good Source of”</td>
<td>10-19% DV/svg</td>
</tr>
<tr>
<td>“Organic”</td>
<td>≥ 70% certified organic ingredients</td>
</tr>
<tr>
<td>“Made with”</td>
<td>Ingredients can be listed on side panel</td>
</tr>
</tbody>
</table>

Nutritional Sciences. Thompson Learning Inc. 2007
Avoid buying packaged foods and choose mostly more nutritious options – fresh fruits and vegetables. More Packaging = Less Nutrition

Ingredients are listed in descending order from most abundant to least abundant… And more is not always better!

Also pay attention to the number of ingredients – usually fewer ingredients = healthier food
Fresh fruits and vegetables are ideal but the nutritional value of frozen is similar to fresh. Choose plain frozen versus frozen with creams or sauces which are higher in fat and sodium. Canned fruits and vegetables are heated in processing to their nutritional value decreases. Choose low or reduced sodium and rinse before use.

Choose seasonal produce – it usually tastes better and costs less! (HANDOUT: Instructor Information Sheet: Healthy Eating on a Budget)

If there’s a Farmer’s Market in your area, buy as many items as you can there and supplement what you need with a trip to the store.
Like the family in the video…
Fill your frig with seasonal fresh fruits and vegetables, low-fat dairy products, lean meats, and fish.
Store your pantry with whole grains, beans, vegetable oils, nuts, nut butters, and seeds.
“Eating healthy costs more, doesn’t it?”

Food Cost Comparisons
You could eat this one unhealthy meal...

1,100 calories

McDonald's quarter pounder w/ cheese – 510 kcal
Medium French fries – 380 kcal
Medium regular soda – 210 kcal

1,100 kcal
Or this healthy breakfast, lunch and snack...

1 cup low fat yogurt with 1 cup fresh fruit and ¼ cup granola – 310 kcal
2 cups salad greens with onions, cucumbers and light Ranch Dressing – 150 kcal
¼ lb hamburger 90% lean meat on whole wheat bun – 300 kcal
1 cup steamed green beans and 1 cup yellow squash – 70 kcal
2 scrambled eggs with salsa and 2 corn tortillas – 250 kcal

1,080 calories

...for the same amount of calories!

Let's look at another example and talk about cost…
Here is a list of value meals from McDonald’s for a family of five. It adds up to approximately 20 dollars. Note that a large value meal has more than 1,300 calories.

<table>
<thead>
<tr>
<th>Food</th>
<th>Calories</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter Pounder with Cheese</td>
<td>510</td>
<td>$5.13</td>
</tr>
<tr>
<td>Fries</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Soda</td>
<td>310</td>
<td></td>
</tr>
<tr>
<td>Crispy Chicken Sandwich</td>
<td>530</td>
<td>$5.49</td>
</tr>
<tr>
<td>Fries</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Soda</td>
<td>310</td>
<td></td>
</tr>
<tr>
<td>Happy Meal</td>
<td>300</td>
<td>$2.79</td>
</tr>
<tr>
<td>Cheeseburger</td>
<td>203</td>
<td></td>
</tr>
<tr>
<td>Fries</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>Chocolate Milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Chicken Nugget Meal</td>
<td>280</td>
<td>$3.79</td>
</tr>
<tr>
<td>Fries</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td>Hi-C</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>Hamburger Happy Meal</td>
<td>250</td>
<td>$2.20</td>
</tr>
<tr>
<td>Fries</td>
<td>230</td>
<td></td>
</tr>
<tr>
<td>Milk</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4610</strong></td>
<td><strong>$19.49</strong></td>
</tr>
</tbody>
</table>

Here is a list of value meals from McDonald’s for a family of five. It adds up to approximately 20 dollars. Note that a large value meal has more than 1,300 calories.
Now let’s look at a home-cooked meal of spaghetti and a salad. Buying all of the ingredients needed adds up to under ten dollars. And the average amount of calories per serving is 450 calories.
Since a large value meal has more than 1,300 calories, this means that for the rest of the day, that person should consume only ~100 to 600 more calories in order to maintain a healthy weight. If you consider that 8 ounces of unsweetened orange juice has 105 calories, for example, this doesn’t leave room for many more calories!

A meal from McDonald’s has an approximately 500 more calories per serving than a healthy homemade dinner.

This means walking 5 more miles to burn off the extra calories.
A meal from McDonald’s has an approximately 500 more calories per serving than a healthy homemade dinner.
This means walking 5 more miles to burn off the extra calories.
And what about the nutrition? Where are the fresh fruits and vegetables?

Fast food has more calories in a less amount of food;
You spend more in the long run;
And what about the nutrition? Where are the fresh fruits and vegetables?

Eating healthy home-cooked meals provides you with less calories in more food;
When you cook at home, you have more control over the quality and quantity of your family’s food choices.
It costs less and is better for your health.

Eating healthy home-cooked meals saves you money and calories!

Buying healthy may not always be cheaper, but can cost the same as eating out.
Benefits of family meals

- Eat more healthy foods - get more nutrients
- Decreased risk for unhealthy weight
- Decreased risk for substance abuse
- Strengthens family ties; pass on traditions
- Form positive attitudes about food and eating
- Do better in school
- Happier life

According to a survey conducted by the University of Minnesota in the August 2004 issue of The Archives of Pediatrics & Adolescent Medicine, frequent family meals are related to better nutritional intake, and a decreased risk for unhealthy weight control practices and substance abuse.

A Harvard study published in the March 2000 issue of Archives of Family Medicine showed that eating family dinners together most or all days of the week was associated with eating more healthfully. The study showed that families eating meals together "every day" or "almost every day" generally consumed higher amounts of important nutrients such as calcium, fiber, iron, vitamins B6 and B12, C and E, and consumed less overall fat, compared to families who "never" or "only sometimes" eat meals together.

Another University of Minnesota study published in the Journal of the American Dietetic Association found that children who ate family meals consumed more fruits, vegetables and fewer snack foods than children who ate separately from their families.

Children who frequently eat meals with their families tend to do better in school as well. A 1994 Lou Harris-Reader's Digest national poll of high school seniors showed higher scholastic scores among students who frequently shared meals with their families. And a survey of high-achieving teens showed that those who regularly eat meals with their families tend to be happier with their present life and their prospects for the future.
Let's put your new knowledge to work by doing an activity called Plan Your Plate.
(Conduct activity per instructions provided)
Choose your challenge (or try both!):
1) Start a new family tradition…
2) For the next four weeks, cook at home one more time than you typically do.
The Supermarket & Food Cost Comparison

Key Point Recap

- Eating healthy does not have to cost more.
- Navigate your supermarket wisely.
- Plan your shopping to save time, money and calories!
- Enjoy fruits and vegetables at all meals.
Switch to

*Healthy Cooking Tips*

PowerPoint
Activity: Plan Your Plate

Time
20 minutes

Objectives
➢ Create a plan for a healthy, well-portioned, balanced meal, including a shopping list.
➢ Increase consumption of fruits, vegetables and whole grains.
➢ Increase knowledge of correct portion sizes.
➢ Increase comfort level in shopping for healthy groceries
➢ Promote healthy eating to families and communities.

Equipment Needed
□ Computer, projector and screen (or white wall space) for PowerPoint presentation

Materials Needed
□ Food models (such as Nasco food replicas)
□ Plain white paper dinner plates (flat, without sections)
□ Copy of “Healthy Shopping List” for each participant (provided as a handout in the Appendix of this curriculum)
□ Colored markers
□ Pens or pencils

Preparation
1. Review all activity documents.

Presentation
1. Begin the activity by discussing with participants the importance of a balanced diet and the need to increase vegetable, fruit and whole grain servings. State or paraphrase the following:

Choose more vegetables that have color and that are not starchy (like corn, and potatoes); choose whole wheat bread, whole wheat or corn tortillas, brown rice; use vegetable oils instead of animal fat; drink water in place of sugar-sweetened beverages; drink skim, 1% or 2% milk rather than whole milk.

At meals, half of the meal plate should be non-starchy vegetables; one quarter of the plate should be lean protein; one quarter should be whole grains or fruit or starchy vegetables.

Many of us do not pay attention to serving sizes. Eating too much food on a regular basis can lead to extra weight, diabetes, heart disease, high blood pressure, high cholesterol and sleep apnea.

2. Next, use food models to show different examples of healthy, well-portioned meals.
3. Distribute paper plates and colored markers.
4. Instruct participants to take the paper plate and use a marker to draw a line down the middle of the plate, creating two halves. Through one of the halves draw another line creating the ½, ¼, and ¼ sections.
5. State that they are now we are going to practice creating healthy meals by drawing or writing an example of a healthy meal on the plate. Be creative! Use some of your favorite vegetables, proteins, and whole grains. Make sure your plate has ¼ meat or protein, ¼ whole grains, fruit, or starchy vegetable, and ½ non-starchy vegetables.
6. When finished drawing/writing, tell participants to use the Healthy Shopping List handout to note the groceries needed for the healthy meal they created.
7. Ask participants to talk about their healthy, well-portioned meal with a few others around them and share grocery lists, too.
8. Finish the activity by asking participants to use the meals they and others created to adjust their shopping list to include additional healthy items for the week.

Conclusion
Do you feel confident you could make the meal that you’ve just drawn on your paper plate? What are some things you could do to make preparing this meal easier? Do you think you can afford to buy the groceries for this recipe? Tell us about a meal someone else drew that you think sounded good.

Acknowledgement:
Written by Laura Dirkse, MPH, The University of Texas School of Public Health Brownsville Regional Campus
Sometimes it is not just what you eat, but how you eat it!

Fats and oils provide our bodies with nutrients we need for our hearts, and transport of vitamins in and around the body. Fats are also filling and tasty. However, fats are also high in calories. Therefore, to maintain a healthy weight, it is important to both reduce fat intake and choose which types of fat to eat. The fats in foods are divided into three categories:

- **Unsaturated fats**: prevent clogged arteries that block blood flow and should be the main type used in food preparation. Examples are: olive, canola, sesame, corn, sunflower, flaxseed and soybean oils, avocado and nut oils, tub margarine and seafood.
- **Saturated fats**: contribute to blocking blood vessels and are found in fatty meats, full-fat dairy foods (cheese, butter, ice cream, whole milk), coconut and palm oil and cocoa butter. These fats are produced by the body and are not a necessary part of a healthy diet.
- **Trans fats**: are found in stick margarine, some tub margarine, shortening and some processed foods like cookies and crackers. These fats also increase the risk of blocked blood vessels and are not necessary for your body.

Experts recommend focusing on both the quantity and type of fat we eat. Cooks should reduce the amount of fat and oil they use in recipes while at the same time opting to substitute healthier options, such as vegetable oils (which are also inexpensive!), for saturated fats, like butter.

Different cooking methods use different amounts and types of fats. One important component of healthy eating is choosing healthy food preparation methods. The following preparation methods require little or no butter or oil and bring out ingredients’ great tastes and flavors:

- **Baked**: cooked in an oven
- **Blanched**: placed in boiling water for a short time then drained and placed in cold water to stop cooking
- **Boiled**: placed in boiling water and cooked until desired doneness
- **Broiled/Grilled**: cooked over a rack or on a spit with direct heat
- **Poached**: cooked gently in hot, but not boiling, liquid
• **Roasted**: cooked uncovered in an oven
• **Steamed**: placed in steam over boiling water in a closed container
• **Stewed**: covered and cooked slowly in a small amount of simmering liquid for a long time

These preparation methods require added fat and produce richer dishes:

• **Basted**: moistened during cooking with liquid such as fat, meat drippings or sauce
• **Breaded**: coated with bread or cracker crumbs, usually for frying
• **Fried**: cooked in fat; a small amount of fat is used for pan frying while deep-fried food is submerged in fat
• **Sautéed**: cooked quickly in a pan in a small amount of fat
• **Stir Fried**: cooked over very high heat in oil

Acknowledgements:
Written by Sydney Jones and Nathalie Sessions, The University of Texas School of Public Health Brownsville Regional Campus
How you cook and prepare foods makes a difference, especially with calories and fat. Here are some healthy cooking tips…
Experts recommend focusing on both the quantity and type of fat we eat. So when cooking, reduce the amount of fat and oil you use in recipes - substitute healthier options, such as vegetable oils (which are also inexpensive!), in place of saturated fats, like butter.

These preparation methods require added fat and produce richer dishes:

- **Basted**: moistened during cooking with liquid such as fat, meat drippings or sauce
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Healthy Cooking Methods

- Baked: cooked in an oven
- Blanched: placed in boiling water for a short time then drained and placed in cold water to stop cooking
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- Roasted: cooked uncovered in an oven
- Steamed: placed in steam over boiling water in a closed container
- Stewed: covered and cooked slowly in a small amount of simmering liquid for a long time

The methods listed here require little or no butter or oil and bring out great tastes and flavors of your ingredients.

When cooking meat, the American Cancer Society recommends baking, broiling, or poaching, rather than frying or charbroiling. Preparing meat with these methods can help lower your risk for certain cancers.
One of the biggest reasons people don’t eat healthy foods is because they feel it won’t taste good. Just because something is good for you doesn’t mean it has to taste bland, boring, or completely gross. Here are a few ideas for eating healthy without sacrificing taste:

**Spice it up**
A great way to add taste without adding a lot of fat, calories, or salt is to add more spices. Try experimenting with different flavors till you find the ones you like the best. Onions, garlic, and herbs are another way of flavoring your food and many herbs have the added benefit of being good for health.

**Get fruity**
At meals, include fruit as a dessert, side dish, or even put some into a salad or main course. Fruit gives you lots of vitamins and minerals and it satisfies your need for sweets. Use lemon juice or citrus zest to add flavor.
If you own a juicer, juice various vegetables and then add fruit to flavor. You’ll be getting the added benefit of vegetables with the taste of fruit juice.

**Be creative**
Try salsa on a baked potato or salad rather than high-fat dressing or butter.
Use your imagination!
Eat a rainbow every day
Switch to

*Conclusion*

PowerPoint
Your Health Matters: Nutritious Eating

Conclusion

Nutritious Eating

Key Point Summary
Energy Balance

- Calories In vs. Calories Out
- IN: food choices - variety, balance, moderation, nutrient density
- OUT: activity – “FITT”
- Keep track to tip the scale

Portion Distortion

- Size matters! Pay attention to servings/portions.
- More calories IN means more calories to burn.
- Eat a healthy diet of mostly fruits, vegetables, and whole grains.
Healthy Eating

- A healthy diet has more *GO* foods than *SLOW* foods, and more *SLOW* foods than *WHOA* foods.

- Create your plate with Variety, Balance, Moderation, and Nutrition in mind.

- A Healthy Plate has mostly vegetables, some whole grain, lean meat/fish, fruit and a small amount of unsaturated fat.

The Basic Nutrients

- A healthy diet has a balance of carbohydrates, protein and fat.

- “Vary your veggies” and “Focus on fruits”

- “Make half your grains whole”

- Get enough fiber.

- Watch out for packaging health claims.
Nutrition Facts Label

- Start with the serving size
- Check out the total calories, fat, sugar
- Let the % Daily Value be your guide – low on top; high on bottom
- Read the list of ingredients
- Eat mostly foods without labels like fresh fruits and vegetables

Meal Planning

- Eating healthy does not have to cost more.
- Navigate your supermarket wisely.
- Plan your shopping to save time, money and calories!
- Enjoy fruits and vegetables at all meals.
How prepared do you feel to educate people about healthy food choices?

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Community Health Workers can help bring about change with health promotion.

Your Health Matters!
End of presentations unless moving on to Diabetes bonus material
Bonus Material!
Diabetes Information and Activities
Instructor Information Sheet: Diabetes

Instructor Information Sheets are included to provide insight into the latest research developments and more confidence in teaching the highlighted subject. The information is not necessarily intended for distribution to clients but certainly may be at the instructor’s discretion.

DEFINITION

Diabetes mellitus, or simply, diabetes, is a group of diseases characterized by high blood glucose levels. Diabetes is a chronic, incurable disease that results when the body either does not produce enough insulin or the body cannot properly use the insulin it does make.

Insulin is a hormone that helps the body use energy from the foods we eat. Insulin acts like a gatekeeper opening gates on cell membranes so that glucose (simple sugar from the carbohydrates in our food) can flow into the cell and be used immediately for energy. When there is more glucose available in the blood than the body needs right away, insulin regulates how the body converts that extra glucose into fat and stores it for the body to use later. Insulin also controls how cells use the protein we eat to repair and build new tissues.

In diabetes, glucose does not flow into the cell for one of two reasons. Either:

1) The body does not produce insulin, so there is no insulin available to act as gatekeepers on cell membranes, allowing glucose to flow into the cells; or
2) The body does produce insulin, but the cell membranes stop latching the insulin into place correctly, so the insulin can’t open the gates to allow the glucose to flow into the cells.

In both cases, the effect is the same: glucose builds up in the blood and high blood glucose causes damage throughout the body.

TYPES OF DIABETES

Type 1 diabetes is a condition characterized by high blood glucose levels caused by a total lack of insulin. This occurs when the body’s immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas then produces little or no insulin. Type 1 diabetes develops most often in young people but can appear in adults.

Type 2 diabetes is a condition characterized by high blood glucose levels caused by either a lack of insulin or the body’s inability to use insulin efficiently. Type 2 diabetes develops most often in middle-aged and older adults but can appear in young people.

Gestational diabetes is a type of diabetes that develops only during pregnancy and usually disappears upon delivery, but increases the risk that the mother will develop diabetes later. Gestational diabetes is managed with meal planning, activity, and, in
some cases, insulin. Gestational diabetes is more common among obese women and women with a family history of diabetes. It occurs more frequently among African Americans, Hispanic/Latino Americans, and American Indians. It is important for a mother with gestational diabetes to control her blood glucose levels so that the diabetes does not harm her baby.

**Pre-Diabetes** is a condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. People with pre-diabetes are at increased risk for developing Type 2 diabetes and for heart disease and stroke. Other names for pre-diabetes are impaired glucose tolerance (IGT) and impaired fasting glucose (IFG).

**WHO IS AT RISK?**

- People with pre-diabetes
- People over age 45
- People with a family history of diabetes
- People who are overweight
- People who do not exercise regularly
- People with low HDL cholesterol or high triglycerides, high blood pressure
- Non-Hispanic Blacks, Hispanic/Latino Americans, Asian Americans and Pacific Islanders, and American Indians and Alaska Natives
- Women who had gestational diabetes, or who have had a baby weighing 9 pounds or more at birth

**DON’T IGNORE THE SYMPTOMS**

Diabetes often goes undiagnosed because many of its symptoms seem so harmless. Early detection of symptoms and treatment can decrease the chance of developing the complications of diabetes.

**Symptoms of Type 1 Diabetes**
- Frequent urination
- Often thirsty
- Increased hunger
- Unexplained weight loss
- Feeling tired or irritable

**Symptoms of Type 2 Diabetes** (often people with Type 2 have no symptoms)
- Any of the type 1 symptoms
- Frequent infections
- Blurry vision
- Sores that don’t to heal
- “Pins and needles” feeling in the feet
- Very dry skin
COMPLICATIONS

Diabetes increases risk for many serious health problems such as:

- Heart Disease
- Eye Complications
- Foot Complications
- Nerve Damage
- Skin Complications
- High Blood Pressure (Hypertension)
- Stroke
- Kidney Disease
- Mental Health Problems
- Stress

However, with the correct treatment and lifestyle changes, many people with diabetes are able to prevent or delay the onset of complications.

PREVENTION AND CONTROL

Type 2 diabetes can be prevented or delayed through lifestyle changes – a healthy diet, increased physical activity, and maintaining a healthy weight. These factors help individuals stay healthier longer and reduce risk of diabetes.

While diabetes is a common disease, individuals with diabetes need unique care. The American Diabetes Association encourages people with diabetes and their families to learn as much as possible about the latest medical therapies and approaches, as well as healthy lifestyle choices.

Acknowledgments and Information Sources:
Adapted with permission from the HEADS UP project © 2009 University of Texas Health Science Center at Houston
American Diabetes Association Web site: www.diabetes.org/
National Heart Lung and Blood Institute Web site: www.nhlbi.nih.gov
Diabetes Bonus Material
American Diabetes Association

**Diabetes Risk Assessment Online Tool**

Click on purple text to access link, or go to web browser and type:

Input fictitious information, use yourself as an example, or ask class for input.
Activity: The Pancreas and Blood Sugar Levels
Activity: Case Study
Living with Diabetes
Activity: Diabetes Poster/Brochure
Activity: The Pancreas and Blood Sugar Levels

Time
20–30 minutes

Objective
➢ To teach students about the structure and function of the pancreas in relationship to diabetes

Equipment Needed
☐ Computer, projector and screen (or white wall space) for PowerPoint presentation

Materials Needed
☐ Copy of “The Pancreas and Blood Sugar Levels Worksheet” for each participant
☐ Pens or pencils

Presentation

1. Show the “Pancreas Information Sheet” PowerPoint slide and discuss the structure and function of the pancreas with the class.

   The pancreas is a small organ located near the lower part of the stomach and the beginning of the small intestine. The pancreas has two main jobs functions (jobs):

   • It produces chemicals that help the small intestine digest fats and proteins.
   • It produces hormones. Insulin is the important hormone produced by the pancreas. Insulin is released into the blood by the pancreas to control the amount of sugar in the blood. If the pancreas does not work right, and insulin is not produced correctly, the disease, diabetes, can develop.

2. Present what different blood sugar levels can mean.

   • One way of testing for diabetes is to look at a person’s fasting blood glucose level (also called blood sugar) – the level when they first wake up in the morning and haven’t had anything to eat yet.
   • Normal fasting blood sugar levels fall between 70 mg/dl and 100 mg/dl. A level above 100 is considered high and may mean a person has diabetes.

   NOTE: mg/dl = milligrams of glucose in 100 milliliters of blood

3. Provide each participant with a copy of “The Pancreas & Blood Sugar Levels Worksheet” and allow everyone time to complete the questions.

4. As a class, review worksheet and discuss correct answers to the questions.

Acknowledgement:
Adapted with permission from the HEADS UP project © 2008 University of Texas Health Science Center at Houston
Functions (Jobs) of the Pancreas:
The pancreas is a small organ located near the lower part of the stomach and the beginning of the small intestine. The pancreas has two main jobs functions (jobs):

1. It produces chemicals that help the small intestine digest fats and proteins.

2. It produces hormones. Insulin is the important hormone produced by the pancreas. Insulin is released into the blood by the pancreas to control the amount of sugar in the blood. If the pancreas does not work right, and insulin is not produced correctly, the disease, diabetes, can develop.

Blood Glucose Levels:
One way of testing for diabetes is to look at a person’s fasting blood glucose level (also called blood sugar) – the level when they first wake up in the morning and haven’t had anything to eat yet.

Normal fasting blood sugar levels fall between 70 mg/dl and 100 mg/dl. A level above 100 is considered high and may mean a person has diabetes.

NOTE: mg/dl = milligrams of glucose in 100 milliliters of blood
The Pancreas and Blood Sugar Levels
Worksheet

Circle the pancreas in the picture below.

List the two functions (jobs) of the pancreas.

1. ______________________________________________________________
2. ______________________________________________________________

Label the fasting blood sugar levels listed below as Normal or High.

107 mg/dl __________________ 126 mg/dl __________________
135 mg/dl __________________ 110 mg/dl __________________
100 mg/dl __________________ 137 mg/dl __________________
147 mg/dl __________________ 75 mg/dl ___________________
Circle the pancreas in the picture below.

List the two functions (jobs) of the pancreas.

1. Produces chemicals that help the small intestine digest fats and proteins.
2. Produces insulin that helps control the amount of sugar in the blood.

Label the fasting blood sugar levels listed below as Normal or High.

107 mg/dL High
135 mg/dL High
100 mg/dL Normal
147 mg/dL High
126 mg/dL High
110 mg/dL High
137 mg/dL High
75 mg/dL Normal
Activity: Case Study: Living with Diabetes

Time
20 minutes

Objective
➢ Culminating activity for participants to apply knowledge gained from videos and prior activities using reading comprehension and critical thinking skills

Equipment Needed
□ Optional: Computer, projector and screen (or white wall space) for PowerPoint presentation

Materials Needed
□ Copy of the “Case Study: Living with Diabetes” two-page handout for each participant
□ Copy of the “Case Study: Living with Diabetes Worksheet” for each participant
□ Copy of the “Case Study: Living with Diabetes Worksheet Answer Sheet” for Instructor
□ Recommended: Copy of the “Instructor Information Sheet: Diabetes” sheet included with this module to use as a reference during presentation
□ Pens or pencils

Preparation
□ Review this activity, including the documents listed in the Materials Needed section.
□ Review “Instructor Information Sheet: Diabetes” sheet included with this module

Presentation
1. As a class, review the differences between Type I and Type II diabetes.
   
   **Type 1 diabetes** is a condition characterized by high blood glucose levels caused by a total lack of insulin. This occurs when the body’s immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas then produces little or no insulin. Type 1 diabetes develops most often in young people but can appear in adults.

   **Type 2 diabetes** is a condition characterized by high blood glucose levels caused by either a lack of insulin or the body's inability to use insulin efficiently. Type 2 diabetes develops most often in middle-aged and older adults but can appear in young people.

2. Remind participants that some diseases, like diabetes, cannot actually be cured—only the symptoms can be managed. The case study focuses on disease management.

3. Distribute a copy of the “Case Study: Living with Diabetes” handout to each student. At your discretion, have students work individually or in pairs or groups.

4. Once participants have completed their worksheets, review and discuss answers.

Acknowledgement:
Adapted with permission from the HEADS UP project © 2008 University of Texas Health Science Center at Houston
Case Study: Living with Diabetes

Helen loves to cook, and used to be a gourmet chef. She would cook delicious meals for her family with little regard for calories. For a long time, Helen accepted her overweight body as just the way she was. Despite a father who had type II diabetes, Helen never worried about ever becoming chronically ill.

Then in August 2003, Helen moved back to her home state of Texas. Her allergies and asthma were acting up and she was desperate for some relief from the symptoms. She made an appointment with a doctor who specializes in the treatment of allergies. The doctor ran several tests on Helen; one of the tests came back positive for type II diabetes. Helen was shocked to find out that she may have been living with this disease for as long as seven or eight years. Half of all people with diabetes may go that long without even knowing it. Helen’s life began to change dramatically.

Helen learned about her own diabetes as well as how to manage it. Like most of all adult diabetics, Helen’s management of her diabetes doesn’t require her to take insulin shots. The approach she has taken involves lifestyle choices such as regular exercise and careful eating habits. Beginning an exercise program was not easy, but Helen found that walking and water aerobics worked well for her. Changing eating habits was equally challenging. Helen’s family had always eaten fairly healthy and Helen enjoyed cooking, but she admits that they often ate too much and too often. It was hard for Helen to change her habits, but she developed lower-calorie versions of gourmet recipes filled with whole grains, fruits, and vegetables that help her to still enjoy being in the kitchen and cooking. In addition to diet and exercise, she must get regular blood glucose tests and take some medication. Helen sees her doctor often.

The other thing that Helen learned is that coping with an illness can be very difficult, even depressing at times. Working closely with a support group and interacting with others has helped her to get through the hard times. Helen’s involvement with others and their health concerns prompted her to decide she wanted to return to school to pursue a master’s degree in public health. Although Helen is happy to be following her dream, her return to school has made managing her diabetes even harder. She drives a long distance several times each week to attend classes and finds it increasingly difficult to make time for exercise and to take the time to cook right, but she is learning to adapt. Effective management of diabetes is about routine and balancing other demands with a busy lifestyle.

Our modern lifestyle can be full of poor eating habits (by choosing foods that are high in sugar and fat) and a serious lack of physical activity. Type II diabetes is becoming increasingly common among adults and many doctors are giving patients over the age of 40 annual tests for diabetes so that it doesn’t go undiagnosed and unmanaged for years before serious symptoms appear. In addition, these tests are being given to young children as childhood obesity is now a problem. Years ago, it was rare for young people to be diagnosed with type II diabetes; now it is more common.
Helen doubts that there is much she could have done to prevent her diabetes. Although she admits that a regular exercise program and a more healthy diet may have delayed her symptoms, she believes that with her family history (genetics) there would have been no escaping it. Not too long after Helen’s diagnosis, her mother was also diagnosed with diabetes. Besides both parents, her grandmother also had diabetes for twenty years before her death. Helen’s brothers and sisters are concerned that they will also develop the disease so they are tested regularly.

Despite her struggles, Helen is grateful that her disease has led her into public health. Perhaps with her knowledge and personal experience she will be able to influence and help even more individuals dealing with diabetes or other chronic illness.
Case Study: Living with Diabetes
Worksheet

Getting the Facts

1. What kind of a doctor first diagnosed Helen’s diabetes? ____________________

2. Some diabetics may go how many years before being diagnosed? (circle one)
   a) 1-2
   b) 15-20
   c) 7-8
   d) 3-4

Making Inferences

3. What do you think the word “chronic” in the first and last paragraphs means? (circle one)
   a) Painful
   b) Unimportant
   c) a way to describe a disease that comes and goes
   d) a way to describe a disease that is always with a person

4. Do you think Helen has lost weight since she found out she was diabetic?
   Give two reasons to support your answer.
   ______________________________________________________________
   ______________________________________________________________

5. Why does Helen think that even with a good diet and exercise she would not have been able to avoid getting diabetes?
   ______________________________________________________________
Case Study: Living with Diabetes
Worksheet – Answer Sheet

1. Allergy doctor
2. C
3. D
4. Yes. She exercises regularly and cooks/eats lower calorie foods.
5. Because of her family history (genetics)
Activity: Diabetes Poster Project

Time
45–60 minutes for group poster assembly
30–45 minutes for group presentations

Objective
➢ Culminating activity to help individuals understand the different types of diabetes, their causes and treatment, and ways it can be prevented

Equipment Needed
□ Optional: Computer, projector and screen (or white wall space) for PowerPoint presentation
□ Optional: Internet access

Materials Needed
□ Flip chart and markers or blackboard with chalk
□ Poster board for each group of 4 participants
□ Several sheets of notebook paper for each group to be used for brainstorming
□ Set of assorted color markers or colored pencils
□ Copy of the “Instructor Information Sheet: Diabetes” for each participant (included in the Energy Balance folder on the CD for this module)

Preparation
□ Review this activity, including the documents listed in the Materials Needed section.
□ Write these four questions on the board:

What is diabetes?
What are the risk factors for diabetes?
How is diabetes treated?
How is diabetes prevented?

Presentation
1. Inform participants that they will be working in small groups to create a poster or brochure about diabetes based on the information they’ve been learning about the disease. Let participants know they’ll be presenting their work to the class.
2. Divide class into small groups with four participants in each group.
3. Provide each group with a poster board, notebook paper, assorted color markers or colored pencils, and copies of the “Instructor Information Sheet: Diabetes.” (For those with internet access, participants could research information online at sites such as the American Diabetes Association: www.diabetes.org.)
4. As a class, brainstorm different key words to use on the posters, writing ideas on notebook paper.
5. Tell participants the poster should include four sections—pointing out the list of questions on the flipchart/board. Assign each member of the group one section of the poster (or let participants choose with their group members).
6. Have each group develop a draft of their poster/brochure design on notebook paper. Review each draft for accuracy before the participants create their final poster.
7. Allow groups to take turns presenting their posters to the class.
8. Display work in/around the classroom or allow participants to take their work home.

Ideas for outreach
- Display work at a Parent Night, Family Night or Science Fair.
- Hold a contest for the best poster/brochure voted by parents, students, teachers and administrators.

Acknowledgement:
Adapted with permission from the HEADS UP project © 2008 University of Texas Health Science Center at Houston

Sample Poster
# Glossary of Terms for Diabetes

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Glucose/Blood Sugar</td>
<td>the main sugar found in the blood and the body’s main source of energy</td>
</tr>
<tr>
<td>Diabetes</td>
<td>a chronic, incurable disease that results when the body either does not produce enough insulin or the body cannot properly use the insulin it does make</td>
</tr>
<tr>
<td>Gestational Diabetes</td>
<td>a form of diabetes similar to Type 2 diabetes that some women develop during pregnancy</td>
</tr>
<tr>
<td>Glucose</td>
<td>a simple sugar that human cells use for energy</td>
</tr>
<tr>
<td>Insulin</td>
<td>a hormone that helps the body use energy from foods; insulin acts like a gatekeeper opening gates on cell membranes so that glucose can flow into the cell and be used immediately for energy</td>
</tr>
<tr>
<td>Pancreas</td>
<td>the organ located behind the lower part of the stomach and is about the size of a hand; the pancreas produces juices that help the small intestine digest fats and proteins and makes insulin and enzymes for digestion</td>
</tr>
<tr>
<td>Pancreatic Beta Cells</td>
<td>cells in the body that produce insulin</td>
</tr>
<tr>
<td>Pre-Diabetes</td>
<td>a condition characterized by blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes</td>
</tr>
<tr>
<td>Prevalence</td>
<td>percentage of people that have a specific disease at a given point in time</td>
</tr>
<tr>
<td>Type 1 Diabetes</td>
<td>formerly called Juvenile diabetes because it usually appears in children or young adults; the body does not produce enough (or any) insulin; develops when the body’s immune system destroys the pancreatic beta cells</td>
</tr>
<tr>
<td>Type 2 Diabetes</td>
<td>accounts for about 90% of all patients with diabetes; sometimes called insulin-resistant diabetes; the body produces insulin, but the cells stop properly latching that insulin into place on the cell membrane so that it can open the gates for glucose to flow through</td>
</tr>
</tbody>
</table>

Acknowledgements:
Adapted with permission from the HEADS UP project © 2009 University of Texas Health Science Center at Houston
American Diabetes Association Web site [www.diabetes.org](http://www.diabetes.org)
Nutrition Guidelines for People with Diabetes

1. Develop a routine. Eat about the same time each day. Space meals no more than 4 1/2 or 5 hours apart when awake. Do not skip meals. If hungry between meals, eat fresh vegetables (like: cucumber, celery, tomatoes, carrots, broccoli or radishes).

2. Eat three (3) balanced meals daily. Control your portion sizes and avoid second helpings. Eat a variety of foods. Limit protein foods to approximately 6 ounces per day. Eat lean meats, fat-free or low-fat cheeses and dairy products.

3. Try to eat fewer calories if you need to lose weight. Your doctor can refer you to a registered dietitian for nutrition counseling. The dietitian can help you with meal plans that are individualized for your needs. Also, ask your doctor if it is safe to be physically active. Being active can help you burn calories and keep you fit.

4. Limit starchy foods to 1-2 servings per meal:

| 1/2 cup corn | 1/3 cup pasta | 6 plain crackers |
| 1/2 cup peas | 1 slice bread, roll or biscuit | 3 graham cracker squares |
| 1/2 cup pinto beans | 1/2 cup cooked cereal | 1/2 hot dog or hamburger bun |
| 1/3 cup rice | 3/4 cup dry cereal | 1/4 bagel (4 oz) |
| 1/2 cup winter squash | 1 tortilla, corn/flour | 1/2 potatoes |

5. Limit fruits to 1 serving for lunch and 1 serving for supper. No fruit for breakfast. Avoid fruit juice, except for low blood sugar.

6. Limit milk to 2 cups of skim or fat-free milk per day for adults.

7. Avoid foods high in fat or oil (like: fried foods, bacon, sausage, bologna, mayonnaise, salad dressing and cheeses).

8. Eat more high fiber foods, like beans, whole grains (whole wheat bread, brown rice) fresh fruits and vegetables. Don’t peel your fruit, it has lots of fiber. Eat 14 grams of fiber for every 1,000 calories on your meal plan per day. Example: 21 grams of fiber for 1,500 calories, 28 grams of fiber for 2,000 calories. Fiber works best when you drink plenty of water!

9. Use sugar substitutes like Equal, Splenda, and Sweet’N Low to sweeten your beverages. Drink all beverages sugar-free such as sodas and sports drinks. Try using a sugar substitute when making a dessert.
10. **Limit alcoholic drinks.** They can interact with your medicine. If you drink alcohol, make sure you have eaten some food. Alcohol lowers your blood sugar. It also has calories that you may not want.

11. **Limit desserts to one of the following and count as a starchy food at mealtime.**
   - One slice of plain cake (such as angel food), no icing
   - Six vanilla wafers or 3 gingersnap cookies
   - One-half cup sugar-free ice cream or pudding
   - One slice sugar-free pie (count as 1 fruit and 2 fats)

12. **Limit low-calorie foods to 20 calories per meal.**
    Examples: 1 tablespoon regular catsup, 1 tablespoon low-sugar jam or jelly

12. **Use sugar-free, calorie-free items as desired.**
    Examples are: tea, sugar-free Kool-Aid, diet soda, diet gelatin, sugar-free popsicles, sugar-free syrup, sugar-free jelly, sugar-free gum, etc. Note: Sugar-free candies and cookies have sugar-alcohols that might cause you to get diarrhea. If you eat them, try not to eat too many. They still have calories and fat.

### FOODS TO LIMIT

<table>
<thead>
<tr>
<th>Sugar</th>
<th>Glazes</th>
<th>Gelatin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syrup</td>
<td>Ice cream</td>
<td>Sherbet</td>
</tr>
<tr>
<td>Brownies</td>
<td>Doughnuts</td>
<td>Pudding</td>
</tr>
<tr>
<td>Regular chewing gum</td>
<td>Sweet pickles</td>
<td>Molasses</td>
</tr>
<tr>
<td>Honey</td>
<td>Sorbet</td>
<td>Candy</td>
</tr>
<tr>
<td>Jelly/jam</td>
<td>Preserves</td>
<td>Pan dulce</td>
</tr>
<tr>
<td>Cake with icing</td>
<td>Pie</td>
<td>Cobblers</td>
</tr>
<tr>
<td>Regular (sugared) soft drinks</td>
<td>Breath mints</td>
<td>Brown sugar</td>
</tr>
</tbody>
</table>

Any meat or vegetable made with a glaze or syrup, and all foods and beverages prepared with regular sugar.
New Food Labels Are Here!

The new food label can be found on food packages in your supermarket. Reading the label tells more about the food and what you are getting. What you see on the food label—the nutrition and ingredient information—is required by the government.

This brochure shows what the new label looks like and explains some of its new features.

### Nutrition Facts Title

The new title "Nutrition Facts" signals the new label.

### Serving Size

Similar food products now have similar serving sizes. This makes it easier to compare foods. Serving sizes are based on amounts people actually eat.

### New Label Information

Some label information may be new to you. The new nutrient list covers those most important to your health. You may have seen this information on some old labels, but it is now required.

### Vitamins and Minerals

Only two vitamins, A and C, and two minerals, calcium and iron, are required on the food label. A food company can voluntarily list other vitamins and minerals in the food.

### Label Numbers

Numbers on the nutrition label may be rounded for labeling.

---

**Nutrition Facts**

**Serving Size**: 1 cup (228g)

**Servings Per Container**: 2

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong></td>
<td>90</td>
</tr>
<tr>
<td><strong>Calories from Fat</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>Total Fat</strong></td>
<td>3g</td>
</tr>
<tr>
<td><strong>Saturated Fat</strong></td>
<td>0g</td>
</tr>
<tr>
<td><strong>Cholesterol</strong></td>
<td>0mg</td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td>300mg</td>
</tr>
<tr>
<td><strong>Total Carbohydrate</strong></td>
<td>13g</td>
</tr>
<tr>
<td><strong>Dietary Fiber</strong></td>
<td>3g</td>
</tr>
<tr>
<td><strong>Sugar</strong></td>
<td>3g</td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td>3g</td>
</tr>
</tbody>
</table>

#### Vitamin A 80%

#### Vitamin C 60%

#### Calcium 4%

#### Iron 4%

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

<table>
<thead>
<tr>
<th>Calories</th>
<th>Total Fat</th>
<th>Sat Fat</th>
<th>Cholesterol</th>
<th>Sodium</th>
<th>Total Carbohydrate</th>
<th>Dietary Fiber</th>
<th>Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>Less than 65g</td>
<td>Less than 20g</td>
<td>Less than 300mg</td>
<td>2,400mg</td>
<td>200g</td>
<td>25g</td>
<td>25g</td>
</tr>
<tr>
<td>2,500</td>
<td>Less than 80g</td>
<td>Less than 25g</td>
<td>Less than 300mg</td>
<td>2,400mg</td>
<td>250g</td>
<td>30g</td>
<td>30g</td>
</tr>
</tbody>
</table>

**Calories per gram**

<table>
<thead>
<tr>
<th>Fat</th>
<th>Carbohydrate</th>
<th>Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

---

Why do some food packages have a short or abbreviated nutrition label?

Foods that have only a few of the nutrients required on the standard label can use a short label format. What's on the label depends on what's in the food. Small- and medium-sized packages with very little label space can also use a short label.

---

**Daily Values Footnote**

Daily Values are the new label reference numbers. These numbers are set by the government and are based on current nutrition recommendations.

Some labels list the daily values for a daily diet of 2,000 and 2,500 calories. Your own nutrient needs may be less than or more than the Daily Values on the label.

---

**Calories Per Gram Footnote**

Some labels tell the approximate number of calories in a gram of fat, carbohydrate, and protein.
Your Health Matters: Nutritious Eating

APPENDICES
## Glossary of Terms for Nutrition

<table>
<thead>
<tr>
<th>TERM</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BILE</strong></td>
<td>A bitter, alkaline, yellow or greenish liquid, secreted by the liver that aids in absorption and digestion of foods, especially of fats.</td>
</tr>
<tr>
<td><strong>CALORIE</strong></td>
<td>A measurement that expresses energy or heat producing value in a food when it oxidizes in the body. Carbohydrate, protein, fat and alcohol provide calories in the diet. Carbohydrate and protein have 4 calories per gram, fat has 9 calories per gram, and alcohol has 7 calories per gram.</td>
</tr>
<tr>
<td><strong>CHYME</strong></td>
<td>The semi fluid mass into which food is converted by gastric chemical and mechanical action which passes from the stomach into the small intestine.</td>
</tr>
<tr>
<td><strong>DIETARY FIBER</strong></td>
<td>Nondigestable carbohydrates from plant foods.</td>
</tr>
<tr>
<td><strong>ESOPHAGUS</strong></td>
<td>Passageway that uses peristalsis to move food from the mouth to the stomach.</td>
</tr>
<tr>
<td><strong>GALL BLADDER</strong></td>
<td>This organ produces juices that help the small intestine digest fats and proteins and stores bile made by the liver.</td>
</tr>
<tr>
<td><strong>LARGE INTESTINE</strong></td>
<td>This organ receives the liquid food mix from the small intestine after most of the nutrients have been absorbed and prepares what the body does not use to exit the body.</td>
</tr>
<tr>
<td><strong>LIVER</strong></td>
<td>The body’s largest organ. This organ changes food into energy, removes alcohol and poisons from the blood, and makes bile, a substance that breaks down fats and helps rid the body of wastes.</td>
</tr>
<tr>
<td><strong>MOUTH</strong></td>
<td>This organ receives food and begins digestion by mechanically reducing the size of solid particles and mixing them with saliva.</td>
</tr>
<tr>
<td><strong>NUTRIENT</strong></td>
<td>Nourishment or benefit we obtain from different types of food which includes macronutrients (carbohydrates, protein, fat) and micronutrients (vitamins, minerals).</td>
</tr>
<tr>
<td><strong>PANCREAS</strong></td>
<td>This organ produces juices that help the small intestine digest fats and proteins; makes insulin and enzymes for digestion; located behind the lower part of the stomach and is about the size of a hand.</td>
</tr>
<tr>
<td><strong>PERISTALSIS</strong></td>
<td>A progressive wave of contraction and relaxation of the esophagus and small intestine by which the contents are forced through the system.</td>
</tr>
<tr>
<td><strong>STOMACH</strong></td>
<td>This organ receives food from the esophagus, churns food and mixes it with gastric juice into a substance called chyme, initiates the digestion of proteins, carries on a limited amount of absorption, and moves food into the small intestine.</td>
</tr>
<tr>
<td><strong>SMALL INTESTINE</strong></td>
<td>This organ receives chyme from the stomach and further breaks down food with help from the pancreas, gall bladder, and liver for absorption of the nutrients the body needs like vitamins, proteins, carbohydrates, and fats.</td>
</tr>
</tbody>
</table>

Acknowledgements:
Edited by Ann-Marie Hedberg, DrPH, RD, LD, Heather Hochberg-Garrett, MPH, RD, LD, Rhonda Hatcher and Nathalie Sessions, The University of Texas Health Science Center at Houston
American Diabetes Association Web site: [www.diabetes.org](http://www.diabetes.org)
List of Additional Resources

Internet sites are provided for convenience and are not necessarily intended as an endorsement.

The University of Texas Community Outreach Program Partner Sites

Brownsville: http://www.sph.uth.tmc.edu/brownsville/

Contributing Project Sites

HEADS UP www.sph.uth.tmc.edu/headsup
CATCH www.sph.uth.tmc.edu/catch

U. S. Government Health-Related Sites

Centers for Disease Control & Prevention www.cdc.gov

National Institutes of Health (NIH) Office of Science Education science-education.nih.gov

National Heart Lung and Blood Institute’s We Can! (Ways to Enhance Children's Activity & Nutrition) Educational Campaign: Choosing Foods – Go-Slow-Whoa

My Pyramid www.mypyramid.gov

U.S. Food and Drug Administration (FDA) Food Labeling and Nutrition www.cfsan.fda.gov/label.html

Dietary Guidelines for Americans http://www.health.gov/dietaryguidelines/


Texas Department of Agriculture – Food & Nutrition Division / Square Meals www.squaremeals.org

Texas Public School Nutrition Policy
www.squaremeals.org/fn/render/parent/channel/0,1253,2348_2350_0_0,00.html

Government information on food and human nutrition www.nutrition.gov


Government Food Safety website http://www.foodsafety.gov/


National Diabetes Education Program www.ndep.nih.gov

National Diabetes Information Clearinghouse www.niddk.nih.gov
List of Additional Resources

Internet sites are provided for convenience and are not necessarily intended as an endorsement.

Professional Organizations

American Dietetic Association www.eatright.org


American Diabetes Association www.diabetes.org

American Association of Diabetes Educators www.diabeteseducator.org

Miscellaneous

Nutrition and Physical Activity Fair Planning Guide
http://fcs.tamu.edu/health/nutrition_physical_activity_fair_planning_guide/index.php

Berkeley Nutrition Services Diet Assessment www.nutritionquest.com/freetools/fv_screener.htm

Mayo Clinic Food and Nutrition www.mayoclinic.com/health/food-and-nutrition

Kids Health www.kidshealth.org/kid/

Smart Snacks for kids http://kidnetic.com/Recipes/?c=Smart+Snacks

The University of Georgia Department of Foods and Nutrition http://www.fcs.uga.edu/fdn/

Fight BAC http://fightbac.org/


Videos and Interactive

More Matters Fruit & Vegetable Video Center
http://www.fruitsandveggiesmorematters.org/video/VideoCenter.php

American Dietetic Association Interactive Quiz, Games, etc. www.eatright.org/cps/rde/xchg/ada/hs.xsl/NNM_2007_landing_14227_ENU_HTML.htm

Test Your Food Label Knowledge www.cfsan.fda.gov/~dms/flquiz1.html

Rate Your Plate Quiz http://bms.brown.edu/nutrition/acrobat/RYP.pdf
Your Health Matters: Nutritious Eating

Handouts
## Estimated Calorie Requirements

(In Kilocalories) for Each Gender and Age Group at Three Levels of Physical Activity

This chart shows how many calories are recommended for both males and females in all age groups. The energy requirements also are broken down into levels of activity from sedentary to active. This should give you a sense of how many calories, ENERGY IN, your family members need.

### Estimate Calorie Requirements

Estimated amounts of calories needed to maintain energy balance for various gender and age groups at three different levels of physical activity. The estimates are rounded to the nearest 200 calories and were determined using the Institute of Medicine equation.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age (years)</th>
<th>Sedentary&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Moderately Active&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Active&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>2–3</td>
<td>1,000</td>
<td>1,000–1,400&lt;sup&gt;e&lt;/sup&gt;</td>
<td>1,000–1,400&lt;sup&gt;e&lt;/sup&gt;</td>
</tr>
<tr>
<td>Female</td>
<td>4–8</td>
<td>1,200</td>
<td>1,400–1,600</td>
<td>1,400–1,800</td>
</tr>
<tr>
<td></td>
<td>9–13</td>
<td>1,600</td>
<td>1,600–2,000</td>
<td>1,800–2,200</td>
</tr>
<tr>
<td></td>
<td>14–18</td>
<td>1,800</td>
<td>2,000</td>
<td>2,400</td>
</tr>
<tr>
<td></td>
<td>19–30</td>
<td>2,000</td>
<td>2,000–2,200</td>
<td>2,400</td>
</tr>
<tr>
<td></td>
<td>31–50</td>
<td>1,800</td>
<td>2,000</td>
<td>2,200</td>
</tr>
<tr>
<td></td>
<td>51+</td>
<td>1,600</td>
<td>1,800</td>
<td>2,000–2,200</td>
</tr>
<tr>
<td>Male</td>
<td>4–8</td>
<td>1,400</td>
<td>1,400–1,600</td>
<td>1,600–2,000</td>
</tr>
<tr>
<td></td>
<td>9–13</td>
<td>1,800</td>
<td>1,800–2,200</td>
<td>2,000–2,600</td>
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<tr>
<td></td>
<td>14–18</td>
<td>2,200</td>
<td>2,400–2,800</td>
<td>2,800–3,200</td>
</tr>
<tr>
<td></td>
<td>19–30</td>
<td>2,400</td>
<td>2,600–2,800</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>31–50</td>
<td>2,200</td>
<td>2,400–2,600</td>
<td>2,800–3,000</td>
</tr>
<tr>
<td></td>
<td>51+</td>
<td>2,000</td>
<td>2,200–2,400</td>
<td>2,400–2,800</td>
</tr>
</tbody>
</table>

<sup>a</sup> These levels are based on Estimated Energy Requirements (EER) from the Institute of Medicine Dietary Reference Intakes macronutrients report, 2002, calculated by gender, age, and activity level for reference-sized individuals. “Reference size,” as determined by IOM, is based on median height and weight for ages up to age 18 years of age and median height and weight for that height to give a BMI of 21.5 for adult females and 22.5 for adult males.

<sup>b</sup> Sedentary means a lifestyle that includes only the light physical activity associated with typical day-to-day life.

<sup>c</sup> Moderately active means a lifestyle that includes physical activity equivalent to walking about 1.5 to 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.

<sup>d</sup> Active means a lifestyle that includes physical activity equivalent to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.

<sup>e</sup> The calorie ranges shown are to accommodate needs of different ages within the group. For children and adolescents, more calories are needed at older ages. For adults, fewer calories are needed at older ages.

Source: HHS/USDA Dietary Guidelines for Americans, 2005
### Body Mass Index Table

<table>
<thead>
<tr>
<th>Height (inches)</th>
<th>Normal</th>
<th>Overweight</th>
<th>Obese</th>
<th>Extreme Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
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# Body Mass Index Table (BMI)

<table>
<thead>
<tr>
<th>Height (feet)</th>
<th>Normal Weight</th>
<th>Overweight</th>
<th>Obesity</th>
<th>Extreme Obesity</th>
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<td>94</td>
<td>97</td>
<td>100</td>
</tr>
<tr>
<td>4'11&quot; / 1.50</td>
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</table>

2 to 20 years: Boys
Body mass index-for-age percentiles

<table>
<thead>
<tr>
<th>Name</th>
<th>Record #</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).</td>
<td></td>
</tr>
</tbody>
</table>

*To Calculate BMI: Weight (kg) ÷ Stature (cm) × Stature (cm) × 10,000  
or Weight (lb) ÷ Stature (in) × Stature (in) × 703

Published May 30, 2000 (modified 10/16/00).
2 to 20 years: Girls
Body mass index-for-age percentiles

Date | Age | Weight | Stature | BMI* | Comments
---|---|---|---|---|---

*BMI = Weight (kg) / (Stature (cm) * Stature (cm)) x 10,000
or Weight (lb) / (Stature (in) * Stature (in)) x 703

Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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<table>
<thead>
<tr>
<th>Meal/Snack (Indicate time of day)</th>
<th>What You Ate and Drank</th>
<th>Where and With Whom</th>
<th>Notes (Feelings, hunger, etc.)</th>
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</thead>
<tbody>
<tr>
<td>Breakfast</td>
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<tr>
<td>Snack</td>
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<td></td>
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<tr>
<td>Lunch</td>
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<tr>
<td>Snack</td>
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<td></td>
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<tr>
<td>Dinner</td>
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<tr>
<td>Day of week</td>
<td>Time of Day</td>
<td>Description of Activity (Type and Intensity Level)</td>
<td>Duration</td>
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</tr>
</tbody>
</table>
Choose MyPlate.gov
What's on your plate?

Before you eat, think about what and how much food goes on your plate or in your cup or bowl. Over the day, include foods from all food groups: vegetables, fruits, whole grains, low-fat dairy products, and lean protein foods.

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

Choose MyPlate.gov

ChooseMyPlate.gov
### Vegetables
- Eat more red, orange, and dark-green veggies like tomatoes, sweet potatoes, and broccoli in main dishes.
- Add beans or peas to salads (kidney or chickpeas), soups (split peas or lentils), and side dishes (pinto or baked beans), or serve as a main dish.
- Fresh, frozen, and canned vegetables all count. Choose “reduced sodium” or “no-salt-added” canned veggies.

### Fruits
- Use fruits as snacks, salads, and desserts.
- At breakfast, top your cereal with bananas or strawberries; add blueberries to pancakes.
- Buy fruits that are dried, frozen, and canned (in water or 100% juice), as well as fresh fruits.
- Select 100% fruit juice when choosing juices.

### Grains
- Substitute whole-grain choices for refined-grain breads, bagels, rolls, breakfast cereals, crackers, rice, and pasta.
- Buy fruits that are dried, frozen, and canned (in water or 100% juice), as well as fresh fruits.
- Select 100% fruit juice when choosing juices.

### Dairy
- Choose skim (fat-free) or 1% (low-fat) milk. They have the same amount of calcium and other essential nutrients as whole milk, but less fat and calories.
- Top fruit salads and baked potatoes with low-fat yogurt.
- If you are lactose intolerant, try lactose-free milk or fortified soymilk (soy beverage).

### Protein Foods
- Eat a variety of foods from the protein food group each week, such as seafood, beans and peas, and nuts as well as lean meats, poultry, and eggs.
- Twice a week, make seafood the protein on your plate.
- Choose lean meats and ground beef that are at least 90% lean.
- Trim or drain fat from meat and remove skin from poultry to cut fat and calories.

---

**For a 2,000-calorie daily food plan, you need the amounts below from each food group.**

To find amounts personalized for you, go to ChooseMyPlate.gov.

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables</td>
<td>2 ½ cups every day</td>
</tr>
<tr>
<td>Fruits</td>
<td>2 cups every day</td>
</tr>
<tr>
<td>Grains</td>
<td>6 ounces every day</td>
</tr>
<tr>
<td>Dairy</td>
<td>3 cups every day</td>
</tr>
<tr>
<td>Protein Foods</td>
<td>5 ½ ounces every day</td>
</tr>
</tbody>
</table>

**What counts as a cup?**
- 1 cup of raw or cooked vegetables or vegetable juice; 2 cups of leafy salad greens
- 1 cup of raw or cooked fruit or 100% fruit juice; ½ cup dried fruit
- 1 slice of bread; ½ cup of cooked rice, cereal, or pasta; 1 ounce of ready-to-eat cereal
- 1 cup of milk, yogurt, or fortified soymilk; ½ ounce natural or 2 ounces processed cheese
- 1 ounce of lean meat, poultry, or fish; 1 egg; 1 Tbsp peanut butter; ½ ounce nuts or seeds; ½ cup beans or peas

---

### Be physically active your way
- Pick activities you like and do each for at least 10 minutes at a time. Every bit adds up, and health benefits increase as you spend more time being active.

**Children and adolescents:** get 60 minutes or more a day.

**Adults:** get 2 hours and 30 minutes or more a week of activity that requires moderate effort, such as brisk walking.
What does 1 cup look like?

Fruits shown at actual size.

1 medium apple

1 large banana

1/8 cantaloupe (1 slice)

What about 1/2 cup?

That’s just 1 cup divided in 2!

Hey kids!
Color the fruit.
Vegetables

What does 1 cup look like?

Vegetables shown at actual size.

Hey kids! Color the veggies.

1 small potato

1 large corn cob

12 baby carrots

What about ½ cup?
That’s just 1 cup divided in 2!
1 cup fresh is equivalent to ½ cup dried!

Hey kids! It’s coloring time.

32 grapes = ½ cup raisins
Chopped, Mashed or Sliced

1 cup measures volume not shape

Hey kids! Have fun coloring.

1 cup chopped yam = 1 cup mashed yam = 1 cup sliced yam
**Healthier Eating: Getting Where You Need to Be**

The Dietary Guidelines for Americans recommends these food groups within MyPyramid as a good source of important nutrients that help provide the foundation for a healthy diet.*

<table>
<thead>
<tr>
<th>Whole Grains</th>
<th>Vegetables</th>
<th>Fruits</th>
<th>Milk and Milk Products Low-fat and Fat-free</th>
</tr>
</thead>
</table>

Increased intakes of fruits, vegetables, whole grains and fat-free or low-fat milk and milk products are likely to have important health benefits for most Americans, according to the Dietary Guidelines. They are encouraged for a healthful diet and are sources for specific nutrients of which many Americans are not getting enough – calcium, potassium, fiber, magnesium, vitamins A, C and E.

Be sure to include the recommended amounts every day:

**Whole Grains**
3 (1 oz.) equivalents
(at least 1/2 of all the grains eaten should be whole grains)
One ounce serving equals 1 slice whole-wheat bread, 1/2 cup brown rice, 5 whole-wheat crackers, 1/2 cup oatmeal

**Vegetables**
2-1/2 cups
One serving equals 1 cup chopped or florets of raw/cooked broccoli, 2 medium carrots, 2 cups of raw, leafy greens = 1 cup cooked, leafy greens

**Fruits**
2 cups
One serving equals 1 cup sliced, chopped or cut-up fruit, about 8 large strawberries, 1 large orange, 32 seedless grapes

**Dairy Foods**
3 cups of low-fat or fat-free milk or milk equivalents
One serving equals 1 cup milk, 1 container (8 oz.) yogurt, 1-1/2 oz. cheese

Choose a variety of foods from each food group. Look for nutrient-dense foods. They have the most vitamins and minerals for the fewest calories.

<table>
<thead>
<tr>
<th>Whole Grains</th>
<th>Vegetables</th>
<th>Fruits</th>
<th>Milk and Milk Products Low-fat and Fat-free</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole-grain breakfast cereal</td>
<td>Broccoli</td>
<td>Peaches</td>
<td>White milk</td>
</tr>
<tr>
<td>Whole-grain breads (wheat, rye, etc.)</td>
<td>Spinach</td>
<td>Bananas</td>
<td>Flavored milk</td>
</tr>
<tr>
<td>Oatmeal</td>
<td>Carrots</td>
<td>Grapefruit</td>
<td>Lactose-free milk</td>
</tr>
<tr>
<td>Brown rice</td>
<td>Red or green pepper</td>
<td>Blueberries</td>
<td>Cheddar cheese</td>
</tr>
<tr>
<td>Popcorn</td>
<td>Tomatoes</td>
<td>Kiwi</td>
<td>Swiss cheese</td>
</tr>
<tr>
<td></td>
<td>Sweet potatoes</td>
<td>Cantaloupe</td>
<td>Mozzarella cheese</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yogurt</td>
</tr>
</tbody>
</table>

**Tips**
- Snack on ready-to-eat, whole-grain cereals such as toasted oat cereal
- Try brown rice or whole-wheat pasta
- Try whole-grain snack chips, such as baked tortilla chips
- Use whole grains in mixed dishes, such as barley in vegetable soup or stews and bulgur wheat in stir-fry or casseroles
- Choose foods that name whole wheat, whole oats, brown rice, etc. first on the label’s ingredient list

**Tips**
- Buy vegetables that are easy to prepare
- Try crunchy vegetables, raw or lightly steamed
- Shred carrots or zucchini into meatloaf, casseroles, quick breads, or muffins
- Include chopped vegetables in pasta sauce or lasagna
- Set a good example for children by eating vegetables with meals and as snacks

**Tips**
- Buy fresh fruits in season
- Vary your fruit choices—fruits differ in nutrient content
- Keep a bowl of whole fruit on the table, counter, or in the refrigerator
- Refrigerate cut-up fruit to store for later
- Make most of your choices whole or cut-up fruit rather than juice, for the benefits dietary fiber provides
- For dessert, have baked apples, pears, or a fruit salad

**Tips**
- Include milk as a beverage at meals
- Use fat-free or low-fat milk instead of water to prepare oatmeal and hot cereals
- Make a dip for fruits or vegetables from yogurt
- Top casseroles, soups, stews, or vegetables with shredded reduced fat cheese
- Make fruit-yogurt smoothies in the blender
- If you are lactose intolerant, choose lactose-reduced or low-lactose alternatives such as cheese, yogurt, or lactose-reduced milk
POWER PACK YOUR DAY.

Here are some easy ways to fill your day with fruits and vegetables as part of a healthy diet:

- Stir low-fat or fat-free granola into a bowl of low-fat or fat-free yogurt. Top with sliced apples or frozen berries.
- Add vegetables, such as diced tomatoes and onions, to your egg or egg white omelet.
- Have some fruit as a mid-morning snack.
- Make fruits and vegetables about half your plate.
- Munch on raw vegetables with a healthy low-fat or fat-free dip.
- Put grapes and banana slices on wooden skewers and freeze for “fruit on a stick.”
- Add frozen vegetables to a casserole or pasta. Try broccoli, peas, and corn.
- Ask for more vegetable toppings (like broccoli and spinach) and less cheese on your pizza.

EVERY BODY IS DIFFERENT.
WE’LL SHOW YOU SIMPLE WAYS TO EAT THE AMOUNTS THAT ARE RIGHT FOR YOU.
You probably already know that a healthy diet includes a variety of fruits and vegetables. Most are lower in calories and higher in fiber than other foods. As part of a healthy diet, eating fruits and vegetables instead of high-fat foods may make it easier to control your weight.

Compared to people who eat only small amounts of fruits and vegetables, those who eat more generous amounts — as part of a healthy diet — are likely to have reduced risk of chronic diseases. These diseases include stroke, type 2 diabetes, some types of cancer, and perhaps heart disease and high blood pressure.

You can find the amounts of fruits and vegetables you need using the charts in this brochure. There are also facts on why eating the recommended amounts is important to your health. Easy tips for including fruits and vegetables in your day are also provided.
Know the amounts you need each day

1. Go to your chart. Choose your level of physical activity. Use these definitions to determine your lifestyle physical activity that is above the light activity of everyday life:
   - **Less Active**: You average less than 30 minutes a day.
   - **Moderately Active**: You average 30 to 60 minutes a day.
   - **Active**: You average more than 60 minutes a day.

2. Choose your age range. Your physical activity level and age determine how many calories you need each day and your calorie needs determine how many fruits and vegetables you should eat.

### Women

<table>
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<tr>
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<th>VEGETABLES</th>
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<tr>
<td>31-50</td>
<td>1 ½ cups</td>
<td>2 ½ cups</td>
</tr>
<tr>
<td>51+</td>
<td>1 ½ cups</td>
<td>2 cups</td>
</tr>
<tr>
<td>19-50</td>
<td>2 cups</td>
<td>2 ½ cups</td>
</tr>
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### Girls

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<tr>
<th>AGE</th>
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<th>VEGETABLES</th>
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<tbody>
<tr>
<td>2-3</td>
<td>1 cup</td>
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<tr>
<td>4-8</td>
<td>1 cup</td>
<td>1 ½ cups</td>
</tr>
<tr>
<td>9-13</td>
<td>1 ½ cups</td>
<td>2 cups</td>
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<tr>
<td>14-18</td>
<td>2 cups</td>
<td>2 ½ cups</td>
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### Boys

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### Men

<table>
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<tr>
<th>AGE</th>
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<th>VEGETABLES</th>
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<tbody>
<tr>
<td>19-50</td>
<td>2 cups</td>
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<tr>
<td>51+</td>
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</tr>
<tr>
<td>51+</td>
<td>2 cups</td>
<td>3 cups</td>
</tr>
</tbody>
</table>

Include fruits and vegetables throughout your day in little ways — for snacks, toppings, side dishes, or in your main meal. Whether they’re frozen, fresh, canned, or dried, all fruits and vegetables (including beans) count toward your daily amount.

Learn what 1 cup and ½ a cup look like:

<table>
<thead>
<tr>
<th>EXAMPLES OF 1 CUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 large ear of corn</td>
</tr>
<tr>
<td>1 large orange</td>
</tr>
<tr>
<td>1 large sweet potato</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXAMPLES OF ½ CUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 broccoli florets</td>
</tr>
<tr>
<td>16 grapes</td>
</tr>
<tr>
<td>4 large strawberries</td>
</tr>
</tbody>
</table>

For more examples, visit 5aday.gov.

In addition to fruits and vegetables, a healthy diet also includes whole grains, fat-free or low-fat milk products, lean meats, fish, beans, eggs and nuts, and is low in saturated fats, trans fats, cholesterol, salt, and added sugars.

---

### Simple ways to enjoy fruits and vegetables throughout your day:

<table>
<thead>
<tr>
<th>MORNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup</td>
</tr>
<tr>
<td>½ cup</td>
</tr>
<tr>
<td>1 small apple</td>
</tr>
<tr>
<td>1 small banana</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MID-DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup</td>
</tr>
<tr>
<td>½ cup</td>
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<tr>
<td>1 cup of lettuce* and ½ cup of other vegetables</td>
</tr>
<tr>
<td>6 baby carrots</td>
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<table>
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<tbody>
<tr>
<td>1 cup</td>
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<tr>
<td>½ cup</td>
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<tr>
<td>½ large sweet potato and ½ cup of green beans</td>
</tr>
<tr>
<td>½ cup of fresh mixed fruit</td>
</tr>
</tbody>
</table>

* 1 cup of lettuce counts as ½ cup of vegetables.
### find your balance

Becoming a healthier you isn’t just about eating healthy — it’s also about physical activity. Regular physical activity is important for your overall health and fitness.

Here are some guidelines to follow:

| Adults should be physically active at a moderate intensity at least 30 minutes most days of the week. |
| To prevent weight gain, adults should be physically active at least at a moderate intensity approximately 60 minutes most days of the week while not exceeding caloric requirements. |
| Children and teenagers should be physically active for 60 minutes most days, or preferably all days of the week. |
| For even greater health benefits, increase the time or intensity of your activity. |

### get the most nutrition out of your calories

Consider this: If you use up your total daily calories on a few high-calorie items, chances are you won’t get the full range of vitamins and nutrients your body needs to be healthy.

To get all the nutrients you need, without consuming too many calories, you should choose foods that are packed with nutrients, but lower in calories, from each of the food groups. These foods include fruits and vegetables, whole grains, lean meats, and fat-free or low-fat milk and milk products.

For more information about a healthy diet, visit MyPyramid.gov.
Diets rich in dietary fiber have been shown to have a number of beneficial effects, including decreased risk of coronary heart disease. Diets rich in potassium may help to maintain a healthy blood pressure.

Vitamin C helps heal cuts and wounds and keeps teeth and gums healthy.

Fruits and vegetables are great sources of many vitamins, minerals and other natural substances that may help protect you from chronic diseases. Some of these nutrients may also be found in other healthy foods. Eating a balanced diet and making other lifestyle changes are key to defending your body’s good health.

**TAKE A HEALTHY BITE.**

Fruits and vegetables are great sources of many vitamins, minerals and other natural substances that may help protect you from chronic diseases. Some of these nutrients may also be found in other healthy foods. Eating a balanced diet and making other lifestyle changes are key to defending your body’s good health.

**FIBER**

Diets rich in dietary fiber have been shown to have a number of beneficial effects, including decreased risk of coronary heart disease.

Excellent fruit and vegetable sources: navy beans, kidney beans, black beans, pinto beans, lima beans, white beans, soybeans, split peas, chick peas, black eyed peas, lentils, artichokes

**FOLATE**

Healthy diets with adequate folate may reduce a woman’s risk of having a child with a brain or spinal cord defect.

Excellent fruit and vegetable sources: black eyed peas, cooked spinach, great northern beans, asparagus

**POTASSIUM**

Diets rich in potassium may help to maintain a healthy blood pressure.

Good fruit and vegetable sources: sweet potatoes, tomato paste, tomato puree, beet greens, white potatoses, white beans, lima beans, cooked greens, carrot juice, prune juice

**VITAMIN A**

Vitamin A keeps eyes and skin healthy and helps to protect against infections.

Excellent fruit and vegetable sources: sweet potatoes, pumpkin, carrots, spinach, turnip greens, mustard greens, kale, collard greens, winter squash, cantaloupe, red peppers, Chinese cabbage

**VITAMIN C**

Vitamin C helps heal cuts and wounds and keeps teeth and gums healthy.

Excellent fruit and vegetable sources: red and green peppers, lime, strawberries, sweet potatoes, kale, cantaloupe, broccoli, pineapple, Brussels sprouts, oranges, mangos, tomato juice, cauliflower

To get a healthy variety, think color. Eating fruits and vegetables of different colors gives your body a wide range of valuable nutrients, like fiber, folate, potassium, and vitamins A and C. Some examples include green spinach, orange sweet potatoes, black beans, yellow corn, purple plums, red watermelon, or white onions. For more variety, try new fruits and vegetables regularly.
## Fruits & Vegetables by Color Category

<table>
<thead>
<tr>
<th>Blue/Purple</th>
<th>Green</th>
<th>White</th>
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<td>Golden Kiwifruit</td>
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<td>Shallots</td>
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<td>Yellow Winter Squash</td>
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The Benefits of Whole Grain

Messages about whole grain seem to be everywhere, but what exactly is a whole grain? What makes it so special? And why should whole grain be an important part of your diet? The Dietary Guidelines for Americans recommend at least three servings of whole grain foods daily1 (48 grams of whole grain). Including enough whole grain foods as part of a healthy diet may help:

- **Protect heart health**: Choosing a diet rich in whole grain foods may help reduce the risk of heart disease.
- **Manage weight**: People who eat more whole grain have healthier body weights than those who don’t, and they’re more successful at maintaining their body weight over time.
- **Reduce cancer risk**: Increasing whole grain may help reduce the risk for certain cancers, especially cancers of the stomach and colon.
- **Reduce diabetes risk**: Eating more whole grain may reduce the risk of diabetes. Whole grain foods may also help maintain healthy blood glucose and insulin levels.

What Exactly is a Whole Grain?

Whole grain means just that — it’s the complete grain. The health benefits of whole grain come from all three parts of the grain — the bran, the germ and the endosperm — working synergistically in their natural proportions.

With whole grain, the “whole” is truly better than the sum of the parts. Individual nutrients in whole grain foods each offer important health benefits. Working together in the “whole” food, they perform in powerful ways to protect your health.

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Finding foods made with whole grain is easy, once you know what to look for. Discover whole grain foods in your supermarket with these quick tips.

**Scan the Ingredient List**
Foods made with whole grain — such as wheat, oats, corn or rice — will list it near the top of the Ingredient List. You’ll know it’s whole grain if the words “whole” or “whole grain” appear before the grain’s name in the Ingredient List. Foods that claim to be “multi-grain,” “100% wheat” or “high fiber” are not necessarily whole grain.

**Look for the Whole Grain Symbols**
The whole grain symbols shown below make it easy to find foods with a half-serving or more of whole grain.

**Whole Grains Council Stamps**
Some food manufacturers are making it easier to find whole grain foods by adding the Whole Grains Council Stamps to their products. Aim to eat three whole grain food products labeled with the 100% Whole Grains Council Stamp, or six whole grain food products labeled with any Whole Grains Council Stamp.

**The Whole Grain Guarantee from General Mills**
Look for the General Mills check-mark logo. The Whole Grain Guarantee from General Mills guarantees that every Big G cereal has at least eight grams (a half-serving) of whole grain per serving.

**Take Note of the Health Statement**
This government-authorized statement points out the connection between whole grain foods and health. Whole grain foods that meet certain requirements can carry the following message. Look for it on a product’s label:

“Diets rich in whole grain and plant foods, and low in total fat, saturated fat and cholesterol may reduce the risk of heart disease and some cancers.”

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**INGREDIENTS:** Whole Grain Oats, Modified Corn Starch, Corn Starch, Sugar, Salt, Calcium Carbonate, Oat Fiber, Tripotassium Phosphate, Wheat Starch. Vitamin E (Mixed Tocopherols) Added to Preserve Freshness.

Did you know that General Mills’ Big G cereals delivered 35 million servings of whole grain per day in fiscal 2009? That translates to Big G cereals providing more than 10% of the estimated whole grain consumed in America!*  

*Based on most recent whole grain consumption figures, NHANES 2003-2004

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*UTC® Your Health Matters: Nutritious Eating Trainer’s Manual ~ October 2011*
Using the Nutrition Facts Label

A How-To Guide for Older Adults
Good Nutrition Can Help You Avoid or Manage These Common Diseases:

- certain cancers
- type 2 diabetes
- heart disease
- high blood pressure
- obesity
- osteoporosis

Good nutrition is important throughout your life! It can help you feel your best and stay strong. It can help reduce the risk of some diseases that are common among older adults. And, if you already have certain health issues, good nutrition can help you manage the symptoms.

Nutrition can sometimes seem complicated. But the good news is that the Food and Drug Administration has a simple tool to help you know exactly what you’re eating.

It’s called the Nutrition Facts Label. You will find it on all packaged foods and beverages. It serves as your guide for making choices that can affect your long-term health.

This booklet will give you the information you need to start using the Nutrition Facts Label today!

For more on nutrition for older adults, visit:
www.fda.gov/Food/ResourcesForYou/Consumers/Seniors

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Understanding what the Nutrition Facts Label includes can help you make food choices that are best for your health.

1 Serving Size

This section shows how many servings are in the package, and how big the serving is. Serving sizes are given in familiar measurements, such as “cups” or “pieces.”

Remember: All of the nutrition information on the label is based upon one serving of the food.

A package of food often contains more than one serving!

2 Amount of Calories

The calories listed are for one serving of the food. “Calories from fat” shows how many fat calories there are in one serving.

Remember — a product that’s fat-free isn’t necessarily calorie-free. Read the label!

3 Percent (%) Daily Value

This section tells you how the nutrients in one serving of the food contribute to your total daily diet. Use it to choose foods that are high in the nutrients you should get more of, and low in the nutrients you should get less of.

Daily Values are based on a 2,000-calorie diet. However, your nutritional needs will likely depend on how physically active you are. Talk to your healthcare provider to see what calorie level is right for you.

4 Limit these Nutrients

Eating too much total fat (especially saturated fat and trans fat), cholesterol, or sodium may increase your risk of certain chronic diseases, such as heart disease, some cancers, or high blood pressure.

Try to keep these nutrients as low as possible each day.

5 Get Enough of these Nutrients

Americans often don’t get enough dietary fiber, vitamin A, vitamin C, calcium, and potassium in their diets. These nutrients are essential for keeping you feeling strong and healthy.

Eating enough of these nutrients may improve your health and help reduce the risk of some diseases.
Serving Size

The top of the Nutrition Facts Label shows the serving size and the servings per container. Serving size is the key to the rest of the information on the Nutrition Facts Label.

- The nutrition information about the food – like the calories, sodium, and fiber – is based upon one serving.
- If you eat two servings of the food, you are eating double the calories and getting twice the amount of nutrients, both good and bad.
- If you eat three servings, that means three times the calories and nutrients – and so on.

That is why knowing the serving size is important. It’s how you know for sure how many calories and nutrients you are getting.

Check Serving Size!

It is very common for a food package to contain more than one serving. One bottled soft drink or a small bag of chips can actually contain two or more servings!

Percent Daily Value (%DV)

The %DV is a general guide to help you link nutrients in one serving of food to their contribution to your total daily diet. It can help you determine if a food is high or low in a nutrient: 5% or less is low, 20% or more is high.

You can also use the %DV to make dietary trade-offs with other foods throughout the day.

%DV: Quick Tips

You can tell if a food is high or low in a particular nutrient by taking a quick look at the %DV.

- If it has 5% percent of the Daily Value or less, it is low in that nutrient. This can be good or bad, depending on if it is a nutrient you want more of or less of.
- If it has 20% or more, it is high in that nutrient. This can be good for nutrients like fiber (a nutrient to get more of) . . . but not so good for something like saturated fat (a nutrient to get less of).

Using %DV

- Once you are familiar with %DV, you can use it to compare foods and decide which is the better choice for you. Be sure to check for the particular nutrients you want more of or less of.
- Using %DV information can also help you “balance things out” for the day.
  - For example: If you ate a favorite food at lunch that was high in sodium, a “nutrient to get less of,” you would then try to choose foods for dinner that are lower in sodium.
Nutrients

A nutrient is an ingredient in a food that provides nourishment. Nutrients are essential for life and to keep your body functioning properly.

Nutrients To Get MORE Of:

There are some nutrients that are especially important for your health. You should try to get adequate amounts of these each day. They are:

- calcium
- vitamin A
- dietary fiber
- vitamin C
- potassium*

* Note: The listing of potassium is optional on the Nutrition Facts Label.

Nutrients To Get LESS Of:

There are other nutrients that are important, but that you should eat in moderate amounts. They can increase your risk of certain diseases. They are:

- Total fat (especially saturated fat)
- Cholesterol
- Sodium

Use this chapter as a guide for those nutrients that could impact your own health. Each nutrient section discusses:

- What the nutrient is
- What it can mean for your health
- Label-reading tips

Watch for “nutrients to get less of” (the ones that you should try to limit), and “nutrients to get more of” (the ones that are very important to be sure to get enough of).

You also might want to talk to your healthcare provider about which nutrients you should track closely for your continued health. And remember – the Nutrition Facts Label is a tool that is available to you on every packaged food and beverage!

Test your Nutrition Facts Label knowledge with Label Man, FDA’s online label-reading tool!

www.fda.gov/LabelMan

Your Guide to a Healthy Diet

The Nutrition Facts Label can help you make choices for overall health. But some nutrients can also affect certain health conditions and diseases.
Dietary Salt/Sodium

What It Is:
Salt is a crystal-like compound that is used to flavor and preserve food. The words “salt” and “sodium” are often used interchangeably. Salt is listed as “sodium” on the Nutrition Facts Label.

What You Should Know:
A small amount of sodium is needed to help certain organs and fluids work properly. But most people eat too much of it – and they may not even know it! That’s because many packaged foods have a high amount of sodium, even when they don’t taste “salty.” Plus, when you add salt to food, you’re adding more sodium.

Sodium has been linked to high blood pressure. In fact, eating less sodium can often help lower blood pressure . . . which in turn can help reduce the risk of heart disease. And since blood pressure normally rises with age, limiting your sodium intake becomes even more important each year.

Salt/Sodium

• Read the label to see how much sodium is in the food you are choosing.
  • 5% DV or less is low in sodium
  • 20% DV or more is high in sodium.

• When you are deciding between two foods, compare the amount of sodium. Look for cereals, crackers, pasta sauces, canned vegetables, and other packaged foods that are lower in sodium.
Soluble v. Insoluble Fiber: Where To Get It, and What It Does

Fiber comes in two forms — insoluble and soluble. Most plant foods contain some of each kind.

- **Insoluble fiber** is mostly found in whole-grain products, such as wheat bran cereal, vegetables and fruit. It provides “bulk” for stool formation and helps wastes move quickly through your colon.

- **Soluble fiber** is found in peas, beans, many vegetables and fruits, oat bran, whole grains, barley, cereals, seeds, rice, and some pasta, crackers, and other bakery products. It slows the digestion of carbohydrates, and can help stabilize blood sugar if you have diabetes. In addition, it helps lower “bad cholesterol.” This, in turn, reduces the risk of heart disease.

Check the **Nutrition Facts Label** to see which foods have a higher %DV of fiber.
**Total Fat**

**What It Is:**
Fat, or “dietary fat,” is a nutrient that is a major source of energy for the body. It also helps you absorb certain important vitamins. As a food ingredient, fat provides taste, consistency, and helps you feel full.

**What You Should Know:**
Eating too much fat can lead to a wide range of health challenges. The total amount and type of fat can contribute to and/or increase the risk of:
- heart disease
- high cholesterol
- increased risk of many cancers (including colon-rectum cancer)
- obesity
- high blood pressure
- type 2 diabetes

It is important to know that there are different types of dietary fat. Some have health benefits when eaten in small quantities, but others do not.

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**Label Reading Tips**

**Fiber**
- **Read food labels.** The Nutrition Facts Label tells you the amount of dietary fiber in each serving, as well as the %DV of fiber that food contains.
  - When comparing the amount of fiber in food, remember:
    - 5% DV or less is low in fiber
    - 20% DV or more is high in fiber
  - The label won’t indicate whether fiber is “insoluble” or “soluble,” so it’s best to try to get some of both. (See information on previous page)
- **Compare foods and choose the ones with higher fiber.** Look for and compare labels on whole-grain products such as bulgur, brown rice, whole wheat couscous or kasha and whole-grain breads, cereals and pasta. In addition, compare different styles/types of canned or frozen beans and fruit.
Label Reading Tips

**Total Fat**

- When comparing foods, check the Nutrition Facts Label and choose the food with the lower %DV of total fat and saturated fat, and low or no grams of trans fat.
  - 5% DV or less of total fat is **low**
  - 20% DV or more of total fat is **high**
- When choosing foods that are labeled “fat-free” and “low-fat,” be aware that fat-free doesn’t mean calorie-free. Sometimes, to make a food tastier, extra sugars are added, which adds extra calories. Be sure to check the calories per serving.

### “Good” Fat: unsaturated fats (monounsaturated and polyunsaturated)
- These are healthful if eaten in moderation. In fact, small amounts can even help **lower cholesterol levels!**
- **Best Sources:** plant-based oils (sunflower, corn, soybean, cottonseed, and safflower), olive, canola and peanut oils, nuts, and soft margarines (liquid, tub or spray).

### “Undesirable” Fat: saturated and trans fats.
These can raise cholesterol levels in the blood – which in turn can contribute to heart disease.
- **Common Sources:** meat, poultry, fish, butter, ice cream, cheese, coconut and palm kernel oils, solid shortenings, and hard margarines.
- Meat (including chicken and turkey) and fish supply protein, B vitamins, and iron. When selecting and preparing meat, poultry, fish and milk or milk products, choose those that are lean, low-fat, or fat-free. Doing this, along with removing the skin from fish and poultry, are good strategies for limiting “undesirable” fat from your diet. In addition, dry beans, which can be used as a meat substitute, are a good source of protein and are non-fat.

**Understanding Trans Fat**

**Trans** fat is one of the newest additions to the Nutrition Facts Label, so you may be hearing more about it. Here’s what you need to know:
- Most **trans** fat is made when manufacturers “hydrogenize” liquid oils, turning them into solid fats, like shortening or some margarines. **Trans** fat is commonly found in crackers, cookies, snack foods, and other foods made with or fried in these solid oils.
- **Trans** fat, like saturated fat and cholesterol, raises your LDL (bad) cholesterol. But unlike these other nutrients, **trans** fat also lowers your HDL (good) cholesterol. This further increases your risk of coronary heart disease.

### Trans Fat On the Label

There is no recommended total daily value for **trans** fat, so you won’t find the %DV of **trans** fat on a food’s Nutrition Facts Label. However, you can still use the label to see if a food contains **trans** fat and to compare two foods by checking to see if **grams** of **trans** fat are listed. If there is anything other than 0 grams listed, then the food contains **trans** fat.

Because it is extremely difficult to eat a diet that is completely **trans** fat-free without decreasing other nutrient intakes, just aim to keep your intake of **trans** fat as low as possible.
Cholesterol

What It Is:
Cholesterol is a crystal-like substance carried through the bloodstream by lipoproteins – the “transporters” of fat. Cholesterol is required for certain important body functions, like digesting dietary fats, making hormones, and building cell walls.

Cholesterol is found in animal-based foods, like meats and dairy products.

What You Should Know:
Too much cholesterol in the bloodstream can damage arteries, especially the ones that supply blood to the heart. It can build up in blood vessel linings. This is called atherosclerosis, and it can lead to heart attacks and stroke.

However, it’s important to know that not all cholesterol is bad. There are two kinds of cholesterol found in the bloodstream. How much you have of each is what determines your risk of heart disease.

High-density lipoprotein (HDL): This “good” cholesterol is the form in which cholesterol travels back to the liver, where it can be eliminated.

- HDL helps prevent cholesterol buildup in blood vessels. A higher level of this cholesterol is better. Low HDL levels increase heart disease risk. Discuss your HDL level with your healthcare provider.

Low-density lipoprotein (LDL): This “bad” cholesterol is carried into the blood. It is the main cause of harmful fatty buildup in arteries.

- The higher the LDL cholesterol level in the blood, the greater the heart disease risk. So, a lower level of this cholesterol is better.

Label Reading Tips

Cholesterol

- Cholesterol is a “nutrient to get less of.” When comparing foods, look at the Nutrition Facts Label, and choose the food with the lower %DV of cholesterol. Be sure not to go above 100% DV for the day.
  - 5% DV or less of cholesterol is low
  - 20% DV or more of cholesterol is high

- One of the primary ways LDL (“bad”) cholesterol levels can become too high in the blood is by eating too much saturated fat and cholesterol. Saturated fat raises LDL levels more than anything else in the diet.
It's true that many dairy products, which contain high levels of calcium, are relatively high in fat and calories. But keep in mind that fat-free or low-fat types of milk products are excellent calcium sources. Nutritionists recommend that you try to get most of your calcium from calcium-rich foods, rather than from calcium supplements. The Nutrition Facts Label can help you make good high-calcium choices.

Other good sources of calcium are:
• canned salmon (with bones, which are edible)
• calcium-fortified soy beverages
• tofu (soybean curd that is “calcium-processed”)
• certain vegetables (for example, dark leafy greens such as collards and turnip greens)
• legumes (blackeyed peas and white beans)
• calcium-fortified grain products
• calcium-fortified juice

A Note About Vitamin D
For calcium to be properly absorbed by the body, you also need to get enough vitamin D. Many milk products and cereals are fortified with vitamin D; also, vitamin D is produced by the body when exposed to sunlight.

If you aren’t exposed to outdoor sunlight on a regular basis, ask your healthcare provider whether you should take vitamin D supplements.
Glossary of Key Nutrition Label Terms

**Calcium:** a mineral that builds and maintains strong bones. Calcium helps prevent osteoporosis.

**Calories:** the energy provided by food/nutrients. On the label, calories shown are for **one serving**.

**Calories from Fat:** Fat calories shown on the label are for **one serving**.

**Cholesterol:** a necessary nutrient from animal-based foods that is carried in the bloodstream. LDL cholesterol is “bad” and HDL cholesterol is “good.”

**Daily Value:** the amount of certain nutrients that most people need each day.

**Nutrient:** an ingredient in a food that provides nourishment or nutritional benefit.

**Nutrition Facts Label:** the black-and-white box found on food and beverage packages.

**Percent Daily Value (%DV):** the percentage of a nutrient found in one serving of food, based on the established standard of 2000 calories per day.

**Saturated Fat:** a type of fat that is solid at room temperature. It is usually animal-based. This type of fat is associated with certain health risks.

**Sodium:** dietary salt that is important in the diet. However, too much sodium can lead to high blood pressure and risk of heart disease.

**Total Fat:** the combined fats that provide energy to the body. Some types of fat are healthier than others.

**Trans Fat:** a type of fat that is created when liquid fat is turned into solid fat during manufacturing. **Trans** fat has no daily value, and should be replaced with unsaturated fat in your diet whenever possible.

**Unsaturated Fat:** a type of fat that is liquid at room temperature; can be plant-based or animal-based. These are usually “good fats.”

The web links provided in this booklet were current at time of publication. In the event that they change, please visit [www.fda.gov](http://www.fda.gov) and search by topic, such as “Seniors” or “Labelman.”
Fruit/Frutas
- apple (2") 1
- apricot, 1/2 cup
- banana, 1/2
- cantaloupe (cubed), 1 cup
- cherries, 1/2 cup
- grapefruit (medium), 1/2
- grapes, 1/2 cup
- orange (2-1/2"), 1
- peach (2-3/4"), 1
- pear (small), 1
- pineapple, 3/4 cup
- raspberries, 1 cup
- strawberries, 1-1/4 cup
- watermelon, 1-1/4 cup
- juices, 1/3 to 1/2 cup

Starches/Almidones
- manzana (2") 1
- chayote, 1/2 taza
- plátano/banano, 1/2
- melón (cubos), 1 taza
- cerezas, 1/2 taza
- toronja (medianoja), 1/2
- uvas, 1/2 taza
- naranja (2-1/2"), 1
- durazno (3-3/4"), 1
- papa (icicha), 1
- piña, 3/4 taza
- tranquesa, 1 taza
- fresas, 1-1/4 taza
- sandía, 1-1/4 taza
- jujes, 1/3 a 1/2 taza

Vegetables/Vegetales
- esparragos
- beans (green, wax)
- beets
- broccoli
- brussel sprouts
- cabbage
- carrots
- cauliflower
- celery
- cucumbers
- greens
- lettuce
- mushrooms
- pumpkins
- radishes
- squash
- spinach
- tomatoes

Fat/Grasas
- Insaturadas:
  - margarina, 1 taza
  - mayonesa, 1 taza
  - cashews, dry roasted, 1 taz.
  - peanuts, 1/2
  - salad dressing, 1 taz.
  - avocado, 1/8
  - oil (canola, olive, peanut), 1 taz.

Skim Milk/Lechе Descremada
- milk (skim or 1%), 1 cup
- yogurt (plain or light), 1 cup
- buttermilk (low fat), 1 cup
- leche (descremada o 1%), 1 taza
- yogurt (sencillo o light), 1 taza
- nata de mantequilla (bajo en grasa), 1 taza

Lean Meat/Carne Magra
- condiment
- Poultry (no skin)
- chicken
turkey

BEEF
- round steak
turkey
- flank steak
fronton

PORK
- Canadian bacon
ham

CARNES
- lomo de puerco
Canadian bacon

VEGETABLES
- green beans
- butternut squash
- spinach
- tomatoes
- lettuce
- broccoli
- brussels sprouts
- cabbage
- carrots
- cauliflower
- celery
- cucumbers
- greens
- lettuce
- mushrooms
- pumpkins
- radishes
- squash
- spinach
- tomatoes

NUTRITION
Page 1 of 1
The Healthy Plate for Children

El Plato Saludable para los Niños

Fruit/Frutas
Lean Meat/Carne Magra
Vegetables/Verduras
Margarine/Margarina
Olive Oil/Oleo de oliva
Shm Milk Leche Descremada
Water/Agua
Salt/Sal
1 tsp./1 cucharadita

Tbsp. 1 cucharadita

Fat/Grasa

The Patient Handbook
UTCO Your Health Matters: Nutritious Eating Trainer’s Manual ~ October 2011
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Healthy Shopping List

Vegetables:
_____ 3-5 vegetables in season
_____ lettuce for salads
_____ fresh veggies for salads
_____ potatoes
_____ winter squash
_____ sweet potatoes
_____ tomatoes
_____ onions and garlic
_____ broccoli

Fruits:
_____ apples/pears
_____ bananas
_____ berries
_____ grapes
_____ lemons/limes
_____ oranges/grapefruit
_____ peaches/plums
_____ watermelon/melon

Dairy:
_____ egg whites
_____ margarine, light tub
_____ milk, skim
_____ sour cream, nonfat
_____ yogurt, fat-free, light

Frozen:
_____ frozen fruits, unsweetened
_____ vegetables, plain

Fish/Poultry/Lean Meat:
_____ chicken or turkey breast
_____ fish (not breaded)
_____ lean beef, pork

Cereal*:
_____ oatmeal

_____ shredded wheat
_____ whole-grain cereal

* 3 g fiber; less than 10 g sugar

Canned*:
_____ beans
_____ fruit in water
_____ chicken broth, low-sodium
_____ pasta sauce, low-sodium
_____ soup, low-fat, low-sodium
_____ tomatoes, no added salt
_____ tuna in water

* low-sodium, no added sugar

Dried and Packaged:
_____ barley
_____ beans/lentils/dried peas
_____ brown rice
_____ herbs
_____ nuts, nut butters
_____ pasta
_____ popcorn, low-fat
_____ raisins
_____ spices
_____ vegetable oil

Condiments:
_____ jam, light
_____ ketchup, no-salt
_____ mayo, low-fat
_____ salad dressing, low-fat
_____ soy sauce, light
_____ vinegar

Bread:
_____ 100% whole-wheat bread
_____ corn tortillas
_____ whole-grain crackers (lowfat)
_____ whole-wheat pitas

Quick 5 Checklist to Save $$:
_____ Look for store brands
_____ On sale - good - stock up!
_____ Compare unit pricing
_____ Stick to your list
_____ Use less meat, soda, cookies, crackers, chips, deli, bakery and convenience items

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Three Easy Steps for Label Reading:

1. Look at serving size, servings per container and calories.
   Eating too many calories per day is linked to people being overweight, obese and developing certain chronic diseases.

2. Limit fat, saturated fat, cholesterol and sodium; shoot for zero trans fat.
   These increase your risk for certain chronic diseases. Try to keep trans fat to zero. Shoot for 5% or less of the daily value on fat, saturated fat, cholesterol and sodium.

3. Get enough fiber and important nutrients.
   Eating enough fiber and nutrients can improve your health and help reduce your risk of some diseases.

© www.foodandhealth.com
1. **Shop in season.** Prices are normally best when fresh produce is in season, like berries in June or squash in the fall. Ask our produce associates for help.

2. **Store fresh produce properly as soon as you get home.** While it won’t reduce the price you pay, you’ll avoid waste.

3. **Try switching less-expensive veggies with meat in your recipes.** Think “vegetable stew with beef!” instead of beef stew with vegetables. Got the idea?

4. **Stock up on frozen, canned, dried, and 100% juice.** All forms count. These are great, healthy options to fresh produce with a longer shelf life.

5. **Twice the value.** Plan for two or more meals from a single item. Use one-half a head of cabbage for cole slaw, the other half for cabbage rolls or stir-fry. Slice half a bag of carrots into sticks for snacks – put the other half into a carrot salad.

6. **Get back to basics.** Instead of an expensive dinner out, why not a good, old-fashioned dinner at home? Fall is a great time to rediscover the feel-good flavors of vegetable stews, baked apples and pears, seasonal squash, and more. Looking for recipes? Visit [www.fruitsandveggiesmorematters.org/?page_id=10](http://www.fruitsandveggiesmorematters.org/?page_id=10).

7. **Plan for leftovers.** Homemade soup is a healthy and tasty way to use fall vegetables. Make a big batch and freeze leftovers in small, lunch-size containers.

8. **Don’t shop hungry!** Snack on a piece of fruit or some fresh veggies before you head out to the store.

9. **Taste like this doesn’t come out of a jar.** Creating your own fresh salsas for dipping with snacks or topping meat dishes is economical. Here’s a link to 40 great salsa recipes: [www.fruitsandveggiesmorematters.org/?page_id=34](http://www.fruitsandveggiesmorematters.org/?page_id=34).

10. **Do the math.** Fruits and veggies aren’t budget-busters. Compare the price of a small bag of chips to an apple, a cup of grapes to a couple of cookies, or a banana and glass of orange juice to a breakfast muffin. Fruits and veggies are more economical, and, dollar for dollar, provide you with better nutritional value.

For more ideas on how to include more fruits and vegetables in your family’s fall meals, visit [www.fruitsandveggiesmorematters.org](http://www.fruitsandveggiesmorematters.org). Helping moms and their families to be at their very best!
# For Your Health: Eat a Rainbow Every Day

## Red
To possibly help prevent cancer & heart disease, stimulate immunity, and promote urinary tract health and memory function, eat more of these red fruits and vegetables:

<table>
<thead>
<tr>
<th>Red Grapes</th>
<th>Red Peppers</th>
<th>Apples</th>
<th>Cherries</th>
<th>Beets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Grapes</td>
<td>Strawberry</td>
<td>Radishes</td>
<td>Red Onions</td>
<td>Red Potatoes</td>
</tr>
<tr>
<td>Watermelon</td>
<td>Cranberries</td>
<td>Red Cabbage</td>
<td>Radicchio</td>
<td>Rhubarb</td>
</tr>
<tr>
<td>Red Grapefruit</td>
<td>Red Pears</td>
<td>Raspberries</td>
<td>Red Peppers</td>
<td>Pomegranate</td>
</tr>
</tbody>
</table>

## Orange
To possibly help prevent cancer & heart disease, stimulate immunity, and enhance vision, eat more of these orange fruits and vegetables:

<table>
<thead>
<tr>
<th>Orange</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet Potatoes</td>
<td>Cantaloupe</td>
<td>Carrots</td>
<td>Peaches</td>
<td>Clementines</td>
</tr>
<tr>
<td>Winter Squash</td>
<td>Mango</td>
<td>Oranges</td>
<td>Apricots</td>
<td>Mandarin Oranges</td>
</tr>
<tr>
<td>Papayas</td>
<td>Tangerines</td>
<td>Persimmons</td>
<td>Pumpkin</td>
<td>Nectarine</td>
</tr>
</tbody>
</table>

## Yellow
To possibly help prevent cancer & heart disease, eat more of these yellow fruits and vegetables:

<table>
<thead>
<tr>
<th>Yellow</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow Apples</td>
<td>Yellow Pears</td>
<td>Lemons</td>
<td>Yellow Peppers</td>
<td>Yellow Grapefruit</td>
</tr>
<tr>
<td>Summer Squash</td>
<td>Yellow Figs</td>
<td>Pineapple</td>
<td>Yellow Tomatoes</td>
<td>Rutabagas</td>
</tr>
<tr>
<td>Yellow Corn</td>
<td>Yellow Beets</td>
<td>Yellow Potatoes</td>
<td>Yellow Watermelon</td>
<td></td>
</tr>
</tbody>
</table>

## Green
To possibly help prevent cancer & heart disease and maintain vision health & strong bones, eat more of these green fruits and vegetables:

<table>
<thead>
<tr>
<th>Green</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kale</td>
<td>Broccoli</td>
<td>Cabbage</td>
<td>Lettuce</td>
<td>Broccoli Rabe</td>
</tr>
<tr>
<td>Greens</td>
<td>Spinach</td>
<td>Kiwi</td>
<td>Celery</td>
<td>Chinese Cabbage</td>
</tr>
<tr>
<td>Cucumber</td>
<td>Peas</td>
<td>Zucchini</td>
<td>Parsley</td>
<td>Green Beans</td>
</tr>
<tr>
<td>Chives</td>
<td>Asparagus</td>
<td>Avocados</td>
<td>Apples</td>
<td>Leeks</td>
</tr>
<tr>
<td>Honeydew</td>
<td>Artichokes</td>
<td>Arugula</td>
<td>Okra</td>
<td>Green Grapes</td>
</tr>
<tr>
<td>Sugar Snap Peas</td>
<td>Snow Peas</td>
<td>Fresh Herbs</td>
<td>Bok Choy</td>
<td>Tomatillos</td>
</tr>
<tr>
<td>Brussel Sprouts</td>
<td>Watercress</td>
<td>Endive</td>
<td>Bell Pepper</td>
<td>Limes</td>
</tr>
<tr>
<td>Chayote Squash</td>
<td>Hot peppers</td>
<td>Banana Peppers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Blue/Purple
To possibly help prevent cancer, help boost night vision, and maintain urinary tract health, eat more of these blue/purple fruits and vegetables:

<table>
<thead>
<tr>
<th>Blue/Purple</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blueberries</td>
<td>Purple Endive</td>
<td>Plums</td>
<td>Blackberries</td>
<td>Purple Peppers</td>
</tr>
<tr>
<td>Elderberries</td>
<td>Purple Potatoes</td>
<td>Eggplant</td>
<td>Purple Carrots</td>
<td>Black Currants</td>
</tr>
<tr>
<td>Purple Grapes</td>
<td>Raisins</td>
<td>Prunes</td>
<td>Figs</td>
<td>Purple Asparagus</td>
</tr>
</tbody>
</table>

## Brown/White
To possibly help prevent cancer & heart disease and stimulate immunity, eat more of these brown/white fruits and vegetables:

<table>
<thead>
<tr>
<th>Brown/White</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas</td>
<td>Brown Pears</td>
<td>White Nectarines</td>
<td>Dates</td>
<td>White Asparagus</td>
</tr>
<tr>
<td>White Peaches</td>
<td>Cauliflower</td>
<td>Garlic</td>
<td>Ginger</td>
<td>Water Chestnuts</td>
</tr>
<tr>
<td>Jicama</td>
<td>Mushrooms</td>
<td>Onions</td>
<td>Parsnips</td>
<td>White Bok Choy</td>
</tr>
<tr>
<td>White Potatoes</td>
<td>Shallots</td>
<td>Turnips</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Aim for 3 different colors a day and one fruit and veggie from each color every week.
Tips for Eating Right

Small steps can help your family get on the road to maintaining a healthy weight. Choose a different tip each week for you and your family to try. See if you can add to the list. Here are a few tips:

**Change Your Shopping Habits**
- Eat before grocery shopping
- Make a grocery list before you shop
- Choose a checkout line without a candy display
- Buy and try serving a new fruit or vegetable

**Watch Your Portion Size**
- Share an entree with someone
- If entrees are large, choose an appetizer or side dish
- Don't serve seconds
- Share dessert, or choose fruit instead
- Eat sweet foods in small amounts. To reduce temptation, don't keep sweets at home
- Cut or share high-calorie foods like cheese and chocolate into small pieces and only eat a few pieces
- Eat off smaller plates
- Skip buffets

**Change the Way You Prepare Food**
- Cut back on added fats and/or oils in cooking or spreads
- Grill, steam, or bake instead of frying
- Make foods flavorful with herbs, spices, and low-fat seasonings
- Use fat-free or low-fat sour cream, mayo, sauces, dressings, and condiments
- Serve several whole-grain foods every day
- Top off cereal with sliced apples or bananas

**Change Your Eating Habits**
- Keep to a regular eating schedule
- Eat together as a family most days of the week
- Eat before you get too hungry
- Make sure every family member eats breakfast every day
- Drink water before a meal
- Stop eating when you're full
- Try a green salad instead of fries
- Ask for salad dressing "on the side"
- Chew slowly every time you eat and remind others to enjoy every bite
- Serve water or low-fat milk at meals, instead of soda or other sugary drinks
- Pay attention to flavors and textures
- Instead of eating out, bring a healthy, low-calorie lunch to work and pack a healthy "brown bag" for your kids
- Provide fruits and vegetables for snacks

Information Source:
We Can! (Ways to Enhance Children’s Activity & Nutrition) National Heart, Lung, and Blood Institute, National Institutes of Health, Department of Health and Human Services Web site: www.nhlbi.nih.gov/health/public/heart/obesity/wecan/
Overview:
In 2005, the AMA, HRSA and CDC convened an Expert Committee to revise the 1997 childhood obesity recommendations. Representatives from 15 healthcare organizations submitted nominations for the experts who would compose the three writing groups (assessment, prevention, treatment). The initial recommendations were released on June 6, 2007 in a document titled “Appendix: Expert Committee Recommendations on the Assessment, Prevention and Treatment of Child and Adolescent Overweight and Obesity” (www.ama-assn.org/ama/pub/category/11759.html).

In 2006, the National Initiative for Children’s Healthcare Quality (NICHQ) launched the Childhood Obesity Action Network (COAN). With more than 40 healthcare organizations and 600 health professionals, the network is aimed at rapidly sharing knowledge, successful practices and innovation. This Implementation Guide is the first of a series of products designed for healthcare professionals by COAN to accelerate improvement in the prevention and treatment of childhood obesity.

The Implementation Guide combines key aspects of the Expert Committee Recommendations summary released on June 6, 2007 and practice tools identified in 2006 by NICHQ from primary care groups that have successfully developed obesity care strategies (www.NICHQ.org). These tools were developed before the 2007 Expert Recommendations and there may be some inconsistencies such as the term overweight instead of obesity for BMI ≥ 95%ile. The tools are intended as a source of ideas and to facilitate implementation. As tools are updated or new tools developed based on the Expert Recommendations, the Implementation Guide will be updated. The Implementation Guide defines 3 key steps to the implementation of the 2007 Expert Committee Recommendations:

- **Step 1 – Obesity Prevention at Well Care Visits** (Assessment & Prevention)
- **Step 2 – Prevention Plus Visits** (Treatment)
- **Step 3 – Going Beyond Your Practice** (Prevention & Treatment)

### Step 1 – Obesity Prevention at Well Care Visits (Assessment & Prevention)

<table>
<thead>
<tr>
<th>Action Steps</th>
<th>Expert Recommendations</th>
<th>Action Network Tips and Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess all children for obesity at all well care visits 2-18 years</td>
<td>Physicians and allied health professional should perform, at a minimum, a yearly assessment.</td>
<td>A presentation for your staff and colleagues can help implement obesity prevention in your practice.</td>
</tr>
<tr>
<td>Use Body Mass Index (BMI) to screen for obesity</td>
<td><strong>Accurately measure height and weight</strong>&lt;br&gt;<strong>Calculate BMI</strong>&lt;br&gt;BMI (English):[weight (lb) ÷ height (in) ÷ height (in)] x 703&lt;br&gt;BMI (metric):[weight (kg) ÷ height (cm) ÷ height (cm)] x 10,000&lt;br&gt;<strong>Plot BMI on BMI growth chart</strong>&lt;br&gt;Not recommended: skinfold thickness, waist circumference</td>
<td>BMI is very sensitive to measurement errors, particularly height. Having a standard measurement protocol as well as training can improve accuracy. BMI calculation tools are also helpful. Use the CDC BMI %ile-for-age growth charts.</td>
</tr>
<tr>
<td>Make a weight category diagnosis using BMI percentile</td>
<td>&lt; 5%ile Underweight&lt;br&gt;5-84%ile Healthy Weight&lt;br&gt;85-94%ile Overweight&lt;br&gt;95-98%ile Obesity&lt;br&gt;≥ 99%ile</td>
<td>Until the BMI 99%ile is added to the growth charts, Table 1 can be used to determine the 99%ile cut-points. Physicians should exercise judgement when choosing how to inform the family. Using more neutral terms such as weight, excess weight, body mass index, BMI, or risk for diabetes and heart disease can reduce the risk of stigmatization or harm to self-esteem.</td>
</tr>
<tr>
<td>Measure blood pressure</td>
<td>Use a cuff large enough to cover 80% of the upper arm&lt;br&gt;Measure pulse in the standard manner</td>
<td>Diagnose hypertension using NHLBI tables. An abbreviated table is shown below (Table 2).</td>
</tr>
<tr>
<td>Take a focused family history</td>
<td>Obesity&lt;br&gt;Type 2 diabetes&lt;br&gt;Cardiovascular disease (hypertension, cholesterol)&lt;br&gt;Early deaths from heart disease or stroke</td>
<td>A child with one obese parent has a 3 fold increased risk of becoming obese. This risk increases to 13 fold with 2 obese parents. Using a clinical documentation tool can be helpful.</td>
</tr>
</tbody>
</table>
### Take a focused review of systems

#### Assess behaviors and attitudes
- **Diet Behaviors**
  - Sweetened-beverage consumption
  - Fruit and vegetable consumption
  - Frequency of eating out and family meals
  - Consumption of excessive portion sizes
  - Daily breakfast consumption
- **Physical Activity Behaviors**
  - Amount of moderate physical activity
  - Level of screen time and other sedentary activities
- **Attitudes**
  - Self-perception or concern about weight
  - Readiness to change
  - Successes, barriers and challenges

Using behavioral risk assessment tools can facilitate history taking and save clinician time.

#### Perform a thorough physical examination

Perform a thorough physical examination

See Table 3. Using a clinical documentation tool can be helpful.

### Order the appropriate laboratory tests

- **BMI 85-94%ile Without Risk Factors**
  - Fasting Lipid Profile
- **BMI 85-94%ile Age 10 Years & Older With Risk Factors**
  - Fasting Lipid Profile
  - ALT and AST
  - Fasting Glucose
- **BMI ≥ 95%ile Age 10 Years & Older**
  - Fasting Lipid Profile
  - ALT and AST
  - Fasting Glucose
  - Other tests as indicated by health risks

Consider ordering ALT, AST and glucose tests beginning at 10 years of age and then periodically (every 2 years). Provider decision support tools can be helpful when choosing assessment and treatment options.

Delivering lab results can be one way to open the conversation about weight and health with a family.

### Give consistent evidence-based messages for all children regardless of weight

- Limit sugar-sweetened beverages
- Eat at least 5 servings of fruits and vegetables
- Moderate to vigorous physical activity for at least 60 minutes a day
- Limit screen time to no more than 2 hours/day
- Remove television from children’s bedrooms
- Eat breakfast every day
- Limit eating out, especially at fast food
- Have regular family meals
- Limit portion sizes

An example from the Maine Collaborative:
- 5 fruits and vegetables
- 2 hours or less of TV per day
- 1 hour or more physical activity
- 0 servings of sweetened beverages

Exam and waiting room posters and family education materials can help deliver these messages and facilitate dialogue. Encourage an authoritative parenting style in support of increased physical activity and reduced TV viewing. Discourage a restrictive parenting style regarding child eating. Encourage parents to be good role models and address as a family issue rather than the child’s problem.

### Use Empathize/Elicit - Provide - Elicit to improve the effectiveness of your counseling

Assess self-efficacy and readiness to change. Use Empathize/Elicit - Provide - Elicit to improve the effectiveness of your counseling.

**Empathize/Elicit**
- Reflect
- What is your understanding?
- What do you want to know?
- How ready are you to make a change (1-10 scale)?

**Provide**
- Advice or information
- Choices or options

**Elicit**
- What do you make of that?
- Where does that leave you?

A possible dialogue:

**Empathize/Elicit**
- “Yours child’s height and weight may put him/her at increased risk for developing diabetes and heart disease at a very early age.”
- “What do make of this?”
- “Would you be interested in talking more about ways to reduce your child’s risk?”

**Provide**
- “Some different ways to reduce your child’s risk are…”
- “Do any of these seem like something your family could work on or do you have other ideas?”

**Elicit**
- “Where does that leave you?”
- “What might you need to be successful?”

**Communication guidelines** can helpful when developing communication skills.
## Step 2 – Prevention Plus Visits (Treatment)

<table>
<thead>
<tr>
<th>Action Steps</th>
<th>Expert Recommendations</th>
<th>Action Network Tips and Tools</th>
</tr>
</thead>
</table>
| Develop an office based approach for follow up of overweight and obese children | A staged approach to treatment is recommended for ages 2-19 whose BMI is 85-94%ile with risk factors and all whose BMI is ≥ 95%ile. In general, treatment begins with Stage 1 Prevention Plus (Table 4) and progresses to the next stage if there has been no improvement in weight/BMI or velocity after 3-6 months and the family is willing/ready. The recommended weight loss targets are shown in Table 5. **Stage 1 - Prevention Plus**  
- Family visits with physician or health professional who has had some training in pediatric weight management/behavioral counseling.  
- Can be individual or group visits.  
- Frequency - individualized to family needs and risk factors, consider monthly.  
- **Behavioral Goals** –  
  - Decrease screen time to 2 hr/day or fewer  
  - No sugar-sweetened beverages  
  - Consume at least 5 servings of fruits and vegetables daily  
  - Be physically active 1 hour or more daily  
  - Prepare more meals at home as a family (the goal is 5-6 times a week)  
  - Limit meals outside the home  
  - Eat a healthy breakfast daily  
  - Involve the whole family in lifestyle changes  
  - More focused attention to lifestyle changes and more frequent follow-up distinguishes Prevention Plus from Prevention Counseling  
- **Weight Goal** – weight maintenance or a decrease in BMI velocity. The long term BMI goal is <85%ile although some children can be healthy with a BMI 85-94%ile.  
- Advance to Stage 2 (Structured Weight Management) if no improvement in weight/BMI or velocity in 3-6 months and family willing/ready to make changes. | Prevention Plus visits may include:  
- **Health education materials**  
- **Behavioral risk assessment and self-monitoring tools**  
- **Action planning and goal setting tools**  
- **Clinical documentation tools**  
- **Counseling protocols**  
- Other health professionals such as dietitians, psychologists and health educators. Besides behavioral and weight goals, improving self-esteem and self efficacy (confidence) are important outcomes. Although weight maintenance is a good goal, more commonly, a slower weight gain reflected in a decreased BMI velocity is the outcome seen in lower intensity behavioral interventions such as Prevention Plus. Measuring and plotting BMI after 3-6 months is an important step to determine the effectiveness of obesity treatment. |

Use motivational interviewing at Prevention Plus visits for ambivalent families and to improve the success of action planning  
**Use patient-centered counseling – motivational interviewing**  
Research suggests that motivational interviewing may be an effective approach to address childhood obesity prevention and treatment. Motivational interviewing is particularly effective for ambivalent families but can also be used for action planning. Instead of telling patients what changes to make, you elicit “change talk” from them, taking their ideas, strengths, and barriers into account. **Communication guidelines** and **communication training** can be helpful with skill development.  

Develop a reimbursement strategy for Prevention Plus visits  
**Coding strategies** can help with reimbursement for Prevention Plus visits. Advocacy through professional organizations to address reimbursement policies is another strategy.
### Step 3 – Going Beyond Your Practice (Prevention & Treatment)

<table>
<thead>
<tr>
<th>Action Steps</th>
<th>Expert Recommendations</th>
<th>Action Network Tips and Tools</th>
</tr>
</thead>
</table>
| Advocate for improved access to fresh fruits and vegetables and safe physical activity in your community and schools | The Expert Committee recommends that physicians, allied healthcare professionals, and professional organizations advocate for:  
- The federal government to increase physical activity at school through intervention programs as early as grade 1 through the end of high school and college, and through creating school environments that support physical activity in general.  
- Supporting efforts to preserve and enhance parks as areas for physical activity, informing local development initiatives regarding the inclusion of walking and bicycle paths, and promoting families’ use of local physical activity options by making information and suggestions about physical activity alternatives available in doctors’ offices. | Physicians and health professionals can play a key role in advocating for policy and built environment changes to support healthy eating and physical activity in communities, child care settings, and schools (including after-school programs). **Advocacy tools and resources** can be helpful in advocacy efforts. Partnering with others and using evidence-based strategies are also critical to the success of **multi-faceted community interventions**. |
| Identify and promote community services which encourage healthy eating and physical activity | Promote physical activity at school and in child care settings (including after school programs), by asking children and parents about activity in these settings during routine office visits. | Public Health Departments and Parks and Recreation are good places to start looking for community programs and resources.  
You can work on developing your own partnerships with community organizations (Physical Activity Directory template and/or referral forms). |
| Identify or develop more intensive weight management interventions for your families who do not respond to Prevention Plus | The Expert Committee recommends the following staged approach for children between the ages of 2 and 19 years whose BMI is 85-94%ile with risk factors and all whose BMI is ≥ 95%ile:  
- **Stage 2 - Structured Weight Management** (Family visits with physician or health professional specifically trained in weight management. Monthly visits can be individual or group.)  
- **Stage 3 - Comprehensive, Multidisciplinary Intervention** (Multidisciplinary team with experience in childhood obesity. Frequency is often weekly for 8-12 weeks with follow up.)  
- **Stage 4 - Tertiary Care Intervention** (Medications - sibutramine, orlistat, Very-low-calorie diets, weight control surgery - gastric bypass or banding.) Recommended for select patients only when provided by experienced programs with established clinical or research protocols. Gastric banding is in clinical trials and not currently FDA approved. | Stage 2 could be done without a tertiary care center if community professionals from different disciplines collaborated. For example, if a physician provided the medical assessment, a dietitian provided classes, and the local YMCA provided an exercise program.  
Partnering with your community tertiary care center can be an effective strategy to develop or link to more intensive weight management interventions (Stages 3 and 4) as well as referral protocols to care for families who do not respond to Prevention Plus visits. Provider **decision support** tools can be helpful when choosing appropriate treatment and referral options. **Weight management protocols and curriculum** can also be helpful when getting started. |
| Join the Childhood Obesity Action Network to learn from your colleagues and accelerate progress | The Childhood Obesity Action Network has launched “The Healthcare Campaign to Stop the Epidemic.” **Join the network** ([www.NICHQ.org](http://www.NICHQ.org)) to learn from our national obesity experts, share what you have learned and access the tools in this guide. **Together we can make a difference!** |
BMI >= 99%ile

BMI >= 99%ile

Girls Height %

Excessive weight loss should be evaluated for high risk behaviors

Table 1 – BMI 99%ile Cut-Points (kg/m²)

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>20.1</td>
<td>21.5</td>
</tr>
<tr>
<td>6</td>
<td>21.6</td>
<td>23.0</td>
</tr>
<tr>
<td>7</td>
<td>23.6</td>
<td>24.6</td>
</tr>
<tr>
<td>8</td>
<td>25.6</td>
<td>26.4</td>
</tr>
<tr>
<td>9</td>
<td>27.6</td>
<td>28.2</td>
</tr>
<tr>
<td>10</td>
<td>29.3</td>
<td>29.9</td>
</tr>
<tr>
<td>11</td>
<td>30.7</td>
<td>31.5</td>
</tr>
<tr>
<td>12</td>
<td>31.8</td>
<td>33.1</td>
</tr>
<tr>
<td>13</td>
<td>32.6</td>
<td>34.6</td>
</tr>
<tr>
<td>14</td>
<td>33.2</td>
<td>36.0</td>
</tr>
<tr>
<td>15</td>
<td>33.6</td>
<td>37.5</td>
</tr>
<tr>
<td>16</td>
<td>33.9</td>
<td>39.1</td>
</tr>
<tr>
<td>17</td>
<td>34.4</td>
<td>40.8</td>
</tr>
</tbody>
</table>

Table 2 – Abbreviated NHLBI Blood Pressure Table

<table>
<thead>
<tr>
<th>AGE</th>
<th>BOYS HEIGHT %</th>
<th>GIRLS HEIGHT %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>2 Yr</td>
<td>106/61</td>
<td>109/63</td>
</tr>
<tr>
<td>5 Yr</td>
<td>112/72</td>
<td>115/74</td>
</tr>
<tr>
<td>8 Yr</td>
<td>116/78</td>
<td>119/79</td>
</tr>
<tr>
<td>11 Yr</td>
<td>121/80</td>
<td>124/82</td>
</tr>
<tr>
<td>14 Yr</td>
<td>128/82</td>
<td>132/84</td>
</tr>
<tr>
<td>17 Yr</td>
<td>136/87</td>
<td>139/88</td>
</tr>
</tbody>
</table>

Table 3 – Symptoms and Signs of Conditions Associated with Obesity

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety, school avoidance, social isolation (Depression)</td>
<td>Poor linear growth (Hypothyroidism, Cushing’s, Prader-Willi syndrome)</td>
</tr>
<tr>
<td>Polyuria, polydipsia, weight loss (Type 2 diabetes mellitus)</td>
<td>Dysmorphemic features (Genetic disorders, including Prader–Willi syndrome)</td>
</tr>
<tr>
<td>Headaches (Pseudotumor cerebri)</td>
<td>Acanthosis nigricans (NIDDM, insulin resistance)</td>
</tr>
<tr>
<td>Night breathing difficulties (Sleep apnea, hyperventilation syndrome, asthma)</td>
<td>Hirsumetis and Excessive Acne (Polycystic ovary syndrome)</td>
</tr>
<tr>
<td>Daytime sleepiness (Sleep apnea, hyperventilation syndrome, depression)</td>
<td>Violaceous striae (Cushing’s syndrome)</td>
</tr>
<tr>
<td>Abdominal pain (Gastroesophageal reflux, Gall bladder disease, Constipation)</td>
<td>Papilledema, cranial nerve VI paralysis (Pseudotumor cerebri)</td>
</tr>
<tr>
<td>Hip or knee pain (Slipped capital femoral epiphysis)</td>
<td>Tonsillar hypertrophy (Sleep apnea)</td>
</tr>
<tr>
<td>Oligomenorrhea or amenorrhea (Polycystic ovary syndrome)</td>
<td>Abdominal tenderness (Gall bladder disease, GERD, NAFLD)</td>
</tr>
<tr>
<td></td>
<td>Violaceous striae (Cushing’s syndrome)</td>
</tr>
<tr>
<td></td>
<td>Limited hip range of motion (Slipped capital femoral epiphysis)</td>
</tr>
<tr>
<td></td>
<td>Lower leg bowing (Blount’s disease)</td>
</tr>
</tbody>
</table>

Table 4 – A Staged Approach to Obesity Treatment

<table>
<thead>
<tr>
<th>BMI 85-94%ile No Risks</th>
<th>BMI 85-94%ile With Risks</th>
<th>BMI 95-98%ile</th>
<th>BMI &gt;= 99%ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 2-5 Years</td>
<td>Prevention Counseling</td>
<td>Initial: Stage 1 Stage 2</td>
<td>Initial: Stage 1 Stage 3</td>
</tr>
<tr>
<td>Age 6-11 Years</td>
<td>Prevention Counseling</td>
<td>Initial: Stage 1 Stage 2</td>
<td>Initial: Stage 1-3 Stage 3</td>
</tr>
<tr>
<td>Age 12-18 Years</td>
<td>Prevention Counseling</td>
<td>Initial: Stage 1 Stage 3</td>
<td>Initial: Stage 1-3 Stage 4</td>
</tr>
</tbody>
</table>

Stage 1: Prevention Plus Primary Care Office
Stage 2: Structured Weight Management Primary Care Office with Support
Stage 3: Comprehensive, Multidisciplinary Intervention Pediatric Weight Management Center
Stage 4: Tertiary Care Intervention Tertiary Care Center

Table 5 – Weight Loss Targets

<table>
<thead>
<tr>
<th>BMI 85-94%ile No Risks</th>
<th>BMI 85-94%ile With Risks</th>
<th>BMI 95-98%ile</th>
<th>BMI &gt;= 99%ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 2-5 Years</td>
<td>Maintain weight velocity</td>
<td>Decrease weight velocity or weight maintenance</td>
<td>Weight maintenance</td>
</tr>
<tr>
<td>Age 6-11 Years</td>
<td>Maintain weight velocity</td>
<td>Decrease weight velocity or weight maintenance</td>
<td>Weight maintenance or gradual loss (1 lb per month)</td>
</tr>
<tr>
<td>Age 12-18 Years</td>
<td>Maintain weight velocity. After linear growth is complete, maintain weight</td>
<td>Decrease weight velocity or weight maintenance</td>
<td>Weight loss (average is 2 pounds per week)*</td>
</tr>
</tbody>
</table>

* Excessive weight loss should be evaluated for high risk behaviors

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