Whole Grains:
Dietary Recommendations, Consumption Patterns, and Health Promotion

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USDA Center for Nutrition Policy and Promotion

Make (At Least!) Half Your Grains Whole Conference
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USDA Center for Nutrition Policy and Promotion

Improve the Nation’s Nutrition and Health

Promote Healthier Eating Habits and Lifestyles

Eating Habits More Consistent With the Dietary Guidelines for Americans
CNPP’s Outcome-Focused, Projects that Inform Public Policy

- Dietary Guidelines for Americans
- MyPyramid Educational Tools
- USDA Food Plans
- Food Supply Series
- Expenditures on Children
- Healthy Eating Index
Dietary Guidelines for Americans: Federal Nutrition Policy

- For policymakers and health professionals
- Separate policy and consumer documents
- 23 general recommendations
- 18 population-specific recommendations (e.g., for older Americans, children, African Americans)
2005 Dietary Guidelines: Nine major focus areas

- Adequate Nutrients Within Calorie Needs
- Weight Management
- Physical Activity
- Food Groups to Encourage
- Fats
- Carbohydrates
- Sodium and Potassium
- Alcoholic Beverages
- Food Safety
2005 Dietary Guidelines: 
Summary of Recommended Food Pattern Changes

More
- fruits
- dark green vegetables
- orange vegetables
- legumes
- whole grains
- low-fat milk and milk products
- physical activity

Less
- saturated fats
- trans fats
- cholesterol
- added sugars
- refined grains
- sodium
Focus on fruits.

Vary your veggies.

Get your calcium-rich foods.

Make half your grains whole.

Go lean with protein.

Know the limits on fats, salt, and sugars.
The 2005 Dietary Guidelines Recommends...

“...consumption of 3 or more ounce equivalents of whole grains per day by substituting whole grains for refined grains. In general, at least half the grains consumed should come from whole grains. “
Implementation Challenge:
According to NHANES 1999-2002: Whole Grain Consumption

• Only 13% of total grain consumption was whole grain

→ 42% of respondents consumed no whole grains on survey date

→ 8% consumed 3 or more whole grains servings

→ A mere 5% of those consuming whole grains made “half their grains whole”
Grain Recommendations Compared to Consumption

Consumed*

- Whole Grains: 87%
- Refined Grains: 13%

Recommended*

- Whole Grains: 50%
- Refined Grains: 50%

*Females 31-50
Healthy Eating Index: A Measure of Diet Quality

Purposes

• To assess conformance to dietary guidance

• To serve as a USDA performance indicator of positive dietary behavioral changes
### The HEI-2005: Nutrient-Density Approach

**Estimated mean total and component scores for children ages 2 to 17, U. S., 2003-04**

<table>
<thead>
<tr>
<th>Component (maximum score)</th>
<th>Age 2-5 years (n=763)</th>
<th>Age 6-11 years (n=900)</th>
<th>Age 12-17 years (n=1,623)</th>
<th>Age 2-17 years (n=3,286)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fruit (5)</td>
<td>5.0</td>
<td>2.9</td>
<td>2.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Total Whole Fruit (5)</td>
<td>4.3</td>
<td>2.7*</td>
<td>2.2†</td>
<td>2.8</td>
</tr>
<tr>
<td>Total Vegetables (5)</td>
<td>2.2</td>
<td>2.3</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Dark Green and Orange Vegetables and Legumes (5)</td>
<td>0.6</td>
<td>0.5</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total Grains (5)</strong></td>
<td><strong>5.0</strong></td>
<td><strong>5.0</strong></td>
<td><strong>5.0</strong></td>
<td><strong>5.0</strong></td>
</tr>
<tr>
<td><strong>Whole Grains (5)</strong></td>
<td><strong>0.8</strong></td>
<td><strong>0.9</strong></td>
<td><strong>0.6†</strong></td>
<td><strong>0.8</strong></td>
</tr>
<tr>
<td>Milk (10)</td>
<td>10.0</td>
<td>8.7*</td>
<td>7.7†</td>
<td>8.7</td>
</tr>
<tr>
<td>Meat and Beans (10)</td>
<td>7.3</td>
<td>7.8</td>
<td>8.8†</td>
<td>8.1</td>
</tr>
<tr>
<td>Oils (10)</td>
<td>5.5</td>
<td>6.6</td>
<td>7.5†</td>
<td>6.7</td>
</tr>
<tr>
<td>Saturated Fat (10)</td>
<td>4.7</td>
<td>5.2</td>
<td>5.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Sodium (10)</td>
<td>4.8</td>
<td>4.5</td>
<td>4.2†</td>
<td>4.4</td>
</tr>
<tr>
<td>Extra Calories (20)</td>
<td>9.4</td>
<td>7.7*</td>
<td>7.9†</td>
<td>8.1</td>
</tr>
<tr>
<td><strong>Total HEI-2005 score (100)</strong></td>
<td><strong>59.6</strong></td>
<td><strong>54.7</strong></td>
<td><strong>54.8</strong></td>
<td><strong>55.9</strong></td>
</tr>
</tbody>
</table>

*Age 2-5 versus 6-11 (significantly different, p<0.05).
†Age 2-5 versus 12-17 (significantly different, p<0.05).
Environment for Behavior Change: Some Good Signs

• 2008 IFIC Foundation Food & Health Survey (n=669)

• Changes Made to Improve Healthfulness of Diet: Which of the following changes, if any, have you made in the past six months to improve the healthfulness of your diet?

• Eating less of a specific food: 71%

• Eating more of a certain food component: 37% (up from 29% from 2006)
Concern for Food Components

• Americans are concerned about the amount (55%) and type (52%) of carbohydrates they consume.

Does this mean that, regarding grains and whole grains, we need to craft a better message about the importance of “type” vs “amount”?
2008 IFIC Foundation Food & Health Survey

• Two-thirds of Americans (67%) agree that reading or hearing about the relationship between food and health is of interest to them

• 87% say they are aware of MyPyramid; 51% say they know a fair amount about it

• Popular press, doctor’s office, food packaging, grocery stores, web site
MyPyramid:
Helping Consumers Implement the Guidelines
Inside the Pyramid

Grains
Make half your grains whole

- Eat at least 3 ounces of whole grain bread, cereal, crackers, rice, or pasta every day.
- Look for "whole" before the grain name on the list of ingredients.

Learn more »
**My Pyramid Plan**

Based on the information you provided and the average needs for your age, gender and physical activity (Age: 54, Sex: male, Physical Activity: More than 60 minutes) your results indicate that you should eat these amounts from the following food groups daily.

Your results are based on a 2800 calorie pattern*.

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Suggested Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains *</td>
<td>10 ounces</td>
</tr>
<tr>
<td>Vegetables **</td>
<td>3.5 cups</td>
</tr>
<tr>
<td>Fruits</td>
<td>2.5 cups</td>
</tr>
<tr>
<td>Milk</td>
<td>3 cups</td>
</tr>
<tr>
<td>Meat &amp; Beans</td>
<td>7 ounces</td>
</tr>
</tbody>
</table>

Click the food groups above to learn more.

*Make Half Your Grains Whole

Aim for at least 5 whole grains a day

**Vary Your Vegetables

Aim for this much every week:

- Dark Green Vegetables = 3 cups weekly
- Orange Vegetables = 2 1/2 cups weekly
- Dry Beans & Peas = 3 1/2 cups weekly
- Starchy Vegetables = 7 cups weekly
- Other Vegetables = 8 1/2 cups weekly

**Oils & Discretionary Calories

Aim for 8 teaspoons of oils a day

Limit your extras (extra fats & sugars) to 374 Calories

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View, Print & Learn More:

- Click here to view and print a PDF version of your results.
- Click here to view and print a PDF of a helpful Meal Tracking Worksheet.

For an accurate assessment of your diet quality and physical activity go to the My Pyramid Tracker.

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*This calorie level is only an estimate of your needs. Monitor your body weight to see if you need to adjust your calorie intake.

Click directly on the ☹️ 😞 😣 emoticon (face) for more detailed dietary information.

<table>
<thead>
<tr>
<th>Dietary Guidelines Recommendations</th>
<th>Emoticon</th>
<th>Number of cup/oz. Equ. Eaten</th>
<th>Number of cup/oz. Equ. Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain</td>
<td>😊 😍 😐</td>
<td>5.7 oz equivalent</td>
<td>6 oz equivalent</td>
</tr>
<tr>
<td>Vegetable</td>
<td>😊 😍 😐</td>
<td>2 cup equivalent</td>
<td>2.5 cup equivalent</td>
</tr>
<tr>
<td>Fruit</td>
<td>😞 😍 😐</td>
<td>0.8 cup equivalent</td>
<td>2 cup equivalent</td>
</tr>
<tr>
<td>Milk</td>
<td>😞 😍 😐</td>
<td>2 cup equivalent</td>
<td>3 cup equivalent</td>
</tr>
<tr>
<td>Meat and Beans</td>
<td>😊 😍 😐</td>
<td>5.2 oz equivalent</td>
<td>5.5 oz equivalent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dietary Guidelines Recommendations</th>
<th>Emoticon</th>
<th>Amount Eaten</th>
<th>Recommendation or Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>😞 😍 😐</td>
<td>45.9% of total calories</td>
<td>20% to 35%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>😞 😍 😐</td>
<td>14.6% of total calories</td>
<td>less than 10%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>😊 😍 😐</td>
<td>258 mg</td>
<td>less than 300 mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>😞 😍 😐</td>
<td>7406 mg</td>
<td>less than 2300 mg</td>
</tr>
<tr>
<td>Oils</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Discretionary calories (solid fats, added sugars, and alcohol)</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>
MyPyramid Plan
• Easy introduction to MyPyramid: Consumers can get an estimate of their food needs

MyPyramid Tracker
• Advanced tool: Provides sophisticated analysis of food intake and physical activity

MyPyramid Posters
• Easy-to-use print materials: Explain the messages of MyPyramid
MyPyramid Menu Planner

- Can plan food intake for a day or up to a week
- Provides immediate feedback as foods entered
- Encourages behavior change – taking small steps
- Can plan for family or a small group
MyPyramid for Kids

• Developed by FNS, in collaboration with CNPP

• Allows children (6 to 11 years old) to “fuel” their rocket with food and physical activity

• Helps children keep track of how their choices fit into MyPyramid
• Includes a MyPyramid Plan personalized for Moms’ trimester or stage of breastfeeding

• Provides information on a variety of topics, from nutritional needs to food safety
MyPyramid for Preschoolers

Designed for parents of preschool children 2 to 5 years old.

Helps parents teach their children to develop healthy habits.
Partnering with MyPyramid

http://www.mypyramid.gov/Challenge/index.html

A program initiated by USDA to encourage corporations to use MyPyramid messages in promoting healthy food and lifestyle choices.
An easy guide to help companies sign on to the Corporate Challenge that includes:

- What is Partnering with MyPyramid?
- How do I sign up?
- Project Ideas
Grains-based Food Industry
Efforts to Increase **Whole Grain** Consumption

- Reformulating existing products with new ingredients (Sustagrain®, Ultragrain®, and MaizeWise™)

- Developing new products (wholegrain flour with taste and texture similar to that of refined flour products, Soft and Smooth Whole Grain White, developed Kansas Diamond™ white whole-wheat extra-fine flour)

- Educating consumers thru grain product labels and promotions (2-Week Fiber Challenge, Whole Grains Stamp, and “Just Ask™” campaign)
MyPyramid on Food Labels

One serving contains
- ½ cup of vegetables
- 1 ounce of grains

MyPyramid recommends 2 ½ cups of vegetables and at least 3 ounces of whole grains per day for a 2000 calorie intake pattern.
MyPyramid food group information on about 700 ConAgra food products in the grocery - Summer 2009.
• Reaching 10,000 Latinas with a 10-lesson nutrition plan

• Box Tops for Education newsletter on MyPyramid sent to 1.3 million consumers

• 482,000 unique visitors to website MyPyramid article
40,000 visitors per month to Wellness website.

Launching today—A new interactive MyPyramid website tool to help consumers reach their personalized MyPyramid goals.
Since kickoff in June 2008:

- 50% increase over Fall 2007
- MyPyramid.gov receiving 50 - 90 million hits per week
- 250,000 new visitors per week – MyPyramid Menu Planner alone
2010 Dietary Guidelines Advisory Committee: Key topic areas/Subcommittees
**USDA’s Nutrition Evidence Library (NEL)**

- Web-based system and set of tools to support evidence-based scientific review process
- Portfolios of evidence abstracts, overview worksheets, evidence summaries and conclusion statements
- Document sharing, tracking, and archiving
- Work group communication tools
- Project status reports
Nutrition Evidence Library (NEL) Purpose

- To serve as a resource for the 2010 Dietary Guidelines Advisory Committee
- To inform Federal nutrition policy
- To identify research gaps for scientists
- To assist nutrition educators
- To provide science-based information to nutrition stakeholders and consumers