The 2010 Dietary Guidelines for Americans: How Does Citrus Fit?

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Disclosure

• My position at the University of Florida is co-funded by the Florida Department of Citrus (FDOC)

• Worked with FDOC for 11 years
Dietary Guidelines history and development
Key messages and citrus
Opportunities and challenges
Other issues
Development of the Dietary Guidelines

- **Purpose**
  - Science-based dietary advice for ages 2 years and older

- **Target audience**
  - Policymakers, nutrition educators, and health professionals

- **Produced by**
  - USDA and DHHS

- **How often**
  - Updated every 5 years
Development Process

Dietary Guidelines Advisory Committee Meetings

Committee Report Submitted to USDA & DHHS

USDA & DHHS Develop Policy Document

Food Guidance System Federal Programs

Slide courtesy of USDA/CNPP
Who Uses the Dietary Guidelines?

• Federal/government food, nutrition, education programs
  – School breakfast and lunch programs
  – Women, Infants and Children’s program (WIC)
  – Supplemental Nutrition Assistance Program (SNAP; formerly Food Stamp program)
  – Elderly Nutrition Programs
  – Nutrition education through Cooperative Extension

• Industry and organizations who provide dietary advice

• Could provide authoritative statements (e.g., for health claims, food labeling, etc.)
Dietary Guidance in America
1980-2010
Food Pyramid

First Food Pyramid - 1992

MyPyramid

2005

ChooseMyPlate.gov

2010
Key Differences between the 2005 and 2010 Guidelines

• Developed for a mostly unhealthy (overweight/obese) population
• Increased focus on children
• Lower sodium recommendations
• “SoFAS” – solid fats and added sugars
• Acknowledged the influence of food/physical activity environment on dietary choices
• Call for all sectors of influence to work together
• Aspirational
100% Fruit Juice Counts as a Fruit

1 cup citrus juice - meets 50% of daily fruit intake recommendations for a 2,000-calorie diet
Orange Juice and MyPyramid
MyPlate

ChooseMyPlate.gov
Overarching Concepts and Key Themes

• Overarching Concepts
  – Maintain calorie balance over time to achieve and sustain a healthy weight
  – Focus on consuming nutrient-dense foods and beverages

• Key Themes
  – Balancing Calories to Manage Weight
  – Foods to Reduce
  – Foods and Nutrients to Increase
  – Building Healthy Eating Patterns
Key Theme: Balancing Calories to Manage Weight

• Improve eating and physical activity behaviors
• Control calorie intake
• Increase physical activity
• Maintain calorie balance
Key Theme: Balancing Calories to Manage Weight

- Five beverages among top 25 sources of calories among Americans
  - Soda/energy/sports drinks (4)
  - Alcoholic beverages (6)
  - Reduced fat milk (13)
  - Fruit drinks (22)
  - Whole milk (23)

- Not all about calories – nutrient density important
- Citrus juices can replace less nutrient-dense beverages
Nutrient Density Scores Ranking
Unfortified fruit juices

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# Nutrient Density for Fresh Fruit

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*Nutrients considered were vitamin C, vitamin A, potassium, calcium and dietary fiber. All values based on edible portion size.

From www.floridajuice.com
Key Theme: Foods and Food Components to Reduce

- Reduce sodium
  - 2,300 mg/day (1 teaspoon of salt)
  - 1,500 mg/day for half the population
  - Mean intake age 2+ is 3,400 mg/day
- Less saturated fats, *trans* fats, cholesterol
- Fewer calories from solid fats, added sugars (SoFAS)
  - Provide ~800 kcal/day
  - Added sugars contribute 16% of total calories
  - Almost 50% of added sugars come from beverages
- Limit refined grains
- Alcohol in moderation
Key Theme: Foods and Food Components to Reduce

- Citrus free of nutrients to reduce/avoid
- 100% juice contains no added sugars

Need to Reduce
- Sodium
- Saturated and trans fat
- Cholesterol
- Solid fats
- Added sugars
Key Theme:
Foods and Food Components to Reduce

HOWEVER...

- Do consumers mistake 100% juice as an added-sugar beverage?
- Body does not process natural sugar differently than added sugar
- Most added sugar foods have little if any nutrients
- Added sugar foods may displace other nutrient-dense foods from the diet
- Tend to be overconsumed – leads to calorie intakes higher than needed or required
Key Theme:
Foods and Nutrients to Increase

- Fruits and vegetables, beans and peas
- Whole grains (half of grain intake)
- Fat-free or low-fat dairy, fortified soy beverages
- Protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds
Key Theme: Foods and Nutrients to Increase

- Amount and variety of seafood (at least 8 ounces/week)
- Replace higher fat protein foods with those lower in solid fats
- Nutrients of public health concern
  - Potassium
  - Dietary fiber
  - Calcium
  - Vitamin D
Key Theme: Foods and Nutrients to Increase

- Fresh citrus and 100% juices help enhance fruit intake
- All citrus delivers potassium
- Fresh citrus contains fiber
- Fortified juices: calcium, vitamin D

**Nutrients of Concern**
- ✓ Potassium
- ✓ Dietary fiber
- ✓ Calcium
- ✓ Vitamin D
Key Theme: Building Healthy Eating Patterns

- Eating pattern should meet nutrient needs at an appropriate calorie level
- Account for all foods and beverages consumed and how they fit within a total eating pattern
- The nutrient density of citrus fruit and juices helps meet nutrient/calorie needs
- Citrus easily fits within a healthy eating plan
- Citrus fits in DASH, vegetarian and Mediterranean-style eating patterns
- Citrus juices offer convenience
Other Recommendations and Guidance

- Eat a nutrient-dense breakfast
- When “juices” are consumed, **100% juice** should be encouraged
- Water or other calorie-free beverages, along with fat-free or low-fat milk and **100% fruit juice**, are recommended to meet total water needs
- Choose water, fat-free milk, **100% fruit juice**, or unsweetened tea or coffee rather than sugar-sweetened drinks
**Consumer Messages**

**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**
Juice and Kids

What role does juice play in overweight or obesity in kids?
100% Fruit Juice and Weight in Kids

Studies reporting no relationship between 100% juice and weight

- 15 studies
  - 9 longitudinal
  - 5 based on a nationally representative sample

Studies reporting higher 100% juice intakes were associated with increased weight or OW/OB

- 6 studies
  - 3 longitudinal
  - None based on a nationally representative sample

Adapted from Figure 2, O’Neil et al. *Am J Lifestyle Med.* 2008;2:315.
100% Juice and Kids

“For most children and adolescents, intake of 100% fruit juice is not associated with body weight.”

“Monitor intake of 100% fruit juice for children and adolescents, especially those who are overweight or obese”
Recent Headlines

“Juice As Bad As Soda, Docs Say”

“Orange Juice Just as Bad as Cola. Really?”

“Fruit juice has too much sugar for it to be a five-a-day”

“Drinking juice is no better than drinking soda”

“Why Fruit Juice Isn't That Good for You”
Front-of-Pack Labeling

Clear on Calories Initiative

- Up to 20 ounces
- > 20 ounces

Nutrition Keys

GMA
FOOD MARKETING INSTITUTE

PER SERVING
- 450 CALORIES
- 5g SAT FAT
- 360mg SODIUM
- 14g SUGARS
- 300mg POTASSIUM
- 3g FIBER

40% DV
15% DV
14% DV
12% DV
Summary

• Opportunities to promote citrus fruit and juice
  – 100% juices count as a fruit serving
  – Nutrient dense - provide nutrients of concern
  – Lack nutrients to avoid
  – Replacement for sugar-sweetened beverages

• Challenges
  – Increased focus on calories and sugar
    • Nutrition Facts panel lists total sugar, not added sugar
    • Calories and total sugar could be on front-of-pack
  – Misunderstood to be an added sugar beverage?
Questions
Overfed and Undernourished

FIGURE 5-1. How Do Typical American Diets Compare to Recommended Intake Levels or Limits?

Usual intake as a percent of goal or limit

Eat more of these:
- Whole grains: 15% vs. 59%
- Vegetables: 42% vs. 52%
- Fruits: 44% vs. 61%
- Dairy: 61%
- Seafood: 61%
- Oils: 61%
- Fiber: 40% vs. 56%
- Potassium: 28% vs. 75%
- Vitamin D: 28%
- Calcium: 28%

Eat less of these:
- Calories from SoFAS*: 280% vs. 200%
- Refined grains: 149%
- Sodium: 110%
Key Theme: Foods and Nutrients to Increase Special Populations

- Women capable of becoming pregnant
  - Foods that supply heme iron and enhancers of iron absorption such as vitamin C-rich foods
  - Consume 400 micrograms (mcg) per day of synthetic folic acid (from fortified foods and/or supplements) in addition to food forms of folate from a varied diet

- Citrus an excellent source of vitamin C
- 8 ounces of orange juice provides over 10% of the Daily Value for folate (food form), making it a good source of food folate
What’s 100% Juice and What’s Not?
Sunny D Tangy Original Flavor

Ingredients: water, corn syrup, 2% or less of each of the following: concentrated juices (orange, tangerine, lime, grapefruit, apple), citric acid, ascorbic acid (vitamin C), thiamin hydrochloride (vitamin B1), natural flavors, modified cornstarch, canola oil, sodium citrate, cellulose gum, sucralose, acesulfame potassium, neotame, sodium hexametaphosphate, potassium sorbate and sodium benzoate to protect flavor, yellow #5, yellow #6.