

Eat and Enjoy a Variety of Fruits and Vegetables on MyPlate

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Webinar February 15, 2012***



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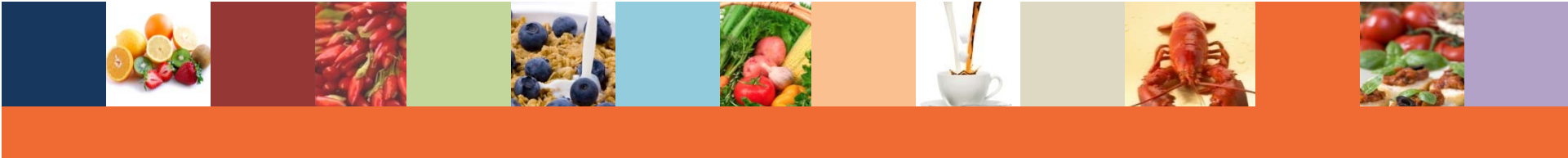
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What are the Dietary Guidelines?

- 1st published in 1980
- Federal nutrition policy established jointly by USDA & HHS
- Updated every 5 years
- Provide science-based advice for ages 2 and over to help prevent chronic disease & promote health
- Foundation for Federal nutrition programs, nutrition education programs, and a basis for research gaps and priorities
- Ensure that messages and materials are consistent through-out the Federal government and that government speaks with “one nutrition voice”
- Policy used by educators, health professionals, policy makers – for consumers



Dietary Guidelines for Americans 1980 - 2010



1980



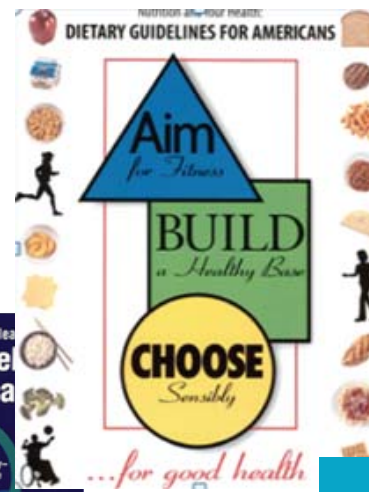
1985



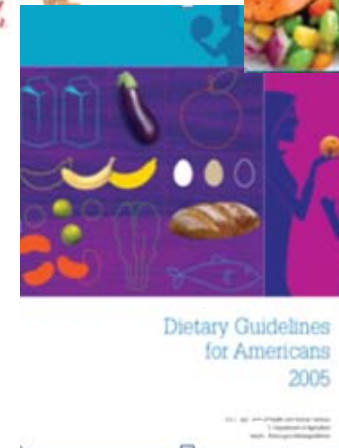
1990



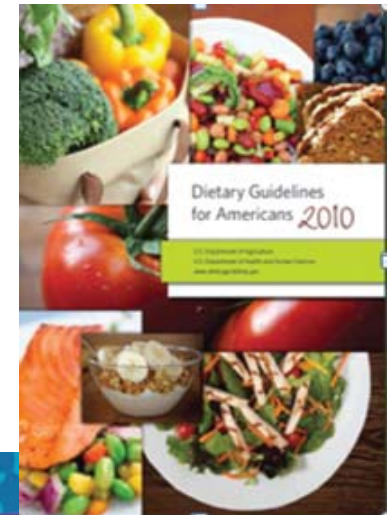
1995



2000



2005

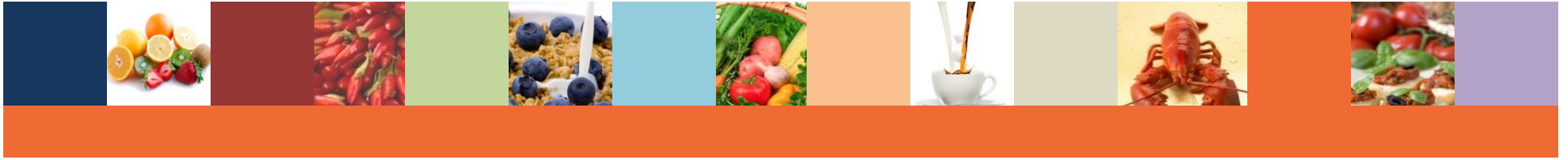


2010



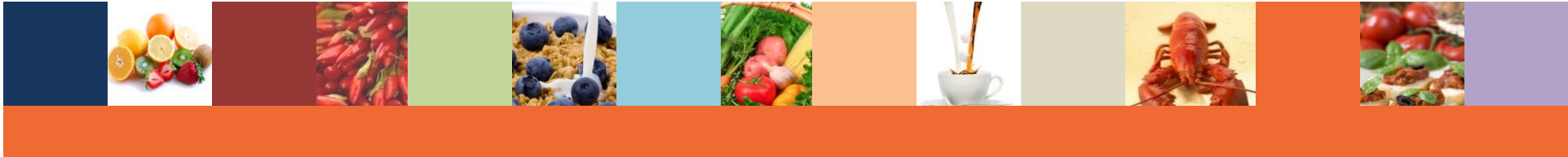
Today's Talk

- Describe the DGAC process:
 - Why five years to publish a little pamphlet with broad dietary guidelines
 - Implications that DGs have on food and nutrition policy
- Give examples of questions the Carbohydrate Committee debated on fruits & vegetables, and summarize the 2010 DGAs on this food group.
- Additional perspective on why and how “all fruits and vegetables fit on *MyPlate*.”

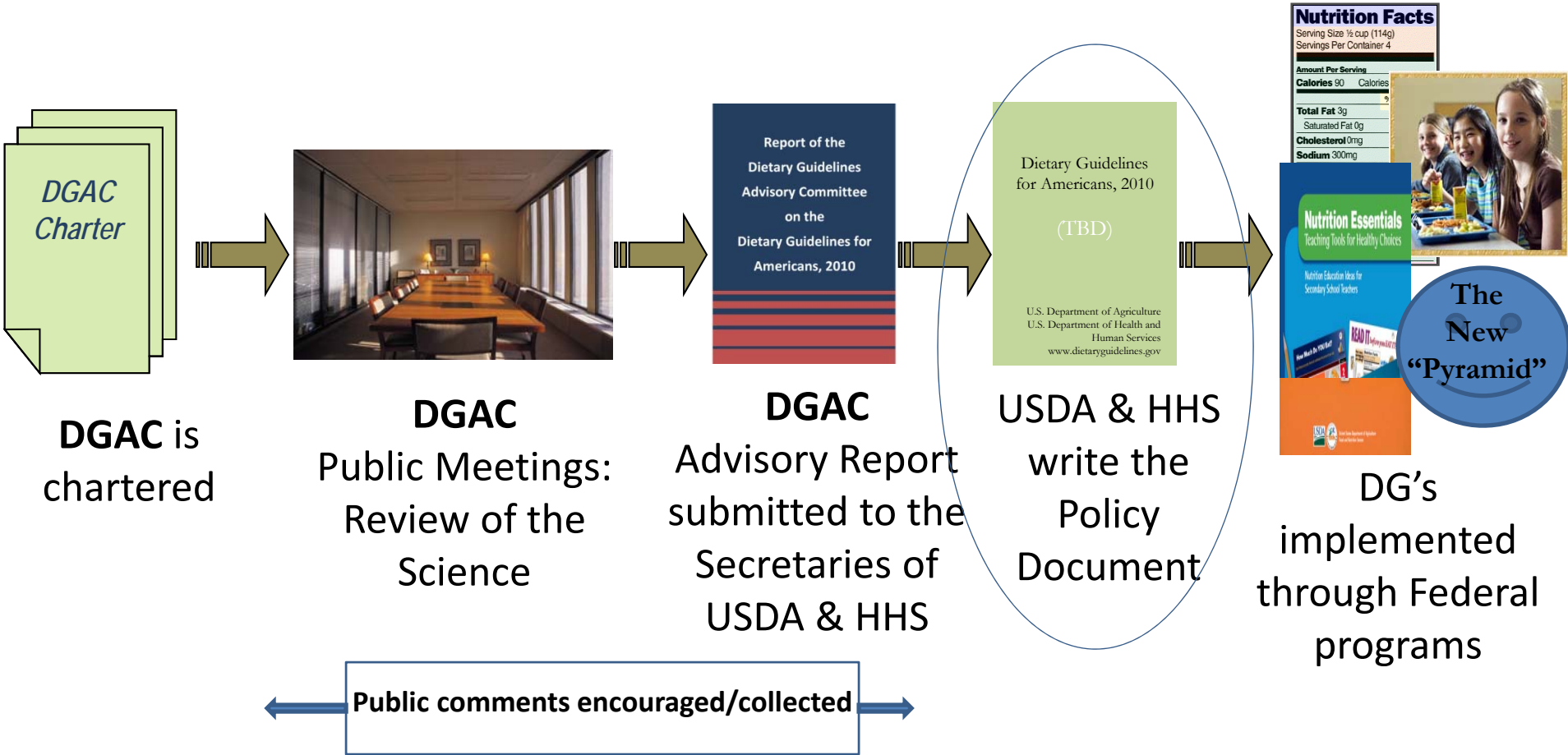


Dietary Guidelines - always controversial

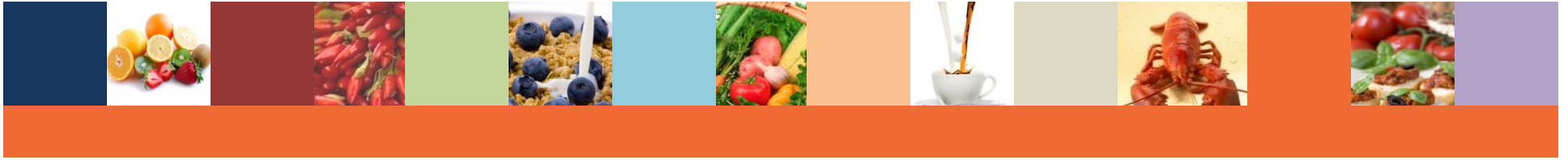
- Dr. Alfred Harper – University of Wisconsin – 1988 paper “Killer French Fries”
 - The model used to learn about nutrient deficiency diseases does not work for chronic diseases, such as heart disease and cancer
 - Wrong information in early Dietary Guidelines:
 - Fruits are not a source of “complex carbohydrates” – they are mostly sugar, contain no protein, and are often poor sources of vitamins and minerals
 - Clinical advice to change diet to lower cholesterol -
↑ plant foods of low protein quality; ↓ animal foods of high protein quality – bad advice for growing children



Development of Dietary Guidelines Policy



Evidence-based Methodology Used to Review the Science



Evidence Analysis Methodology

Rigorous

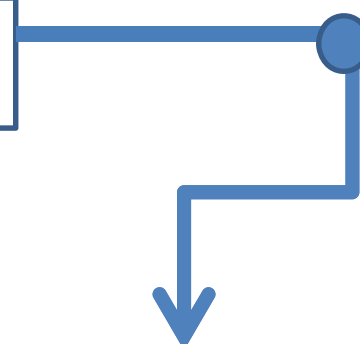
Minimizes bias

Transparent

Accessible to stakeholders and consumers

Defines state of the science

Foundation for updates



Answers precise questions • Illuminates research gaps



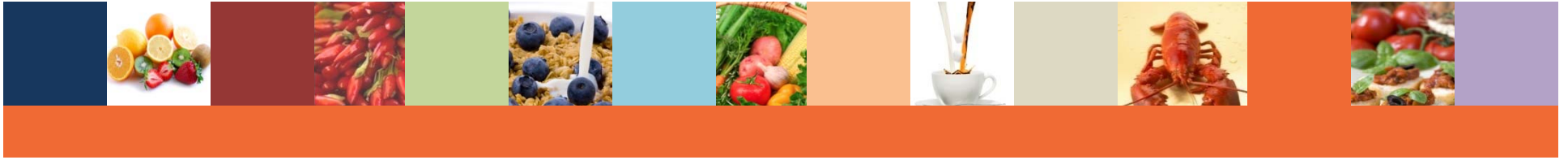
Nutrient Adequacy

- Meet nutrient needs without exceeding calorie needs
- Dietary Reference Intakes (DRIs)
 - Acceptable Macronutrient Distribution Ranges (AMDR)
 - Recommended Dietary Allowance (RDA)
 - Adequate Intake (AI)
 - Tolerable Upper Level Intake (UL)



DGAC: Vegetables & Fruits

What is the relationship between the intake of vegetables and fruits, not including juice, and selected health outcomes?



Vegetables & Fruits - Conclusions

- Consistent evidence suggests at least a moderate inverse relationship between vegetable and fruit consumption with myocardial infarction and stroke, with significantly larger, positive effects noted above five servings of vegetables and fruits per day.
 - Insufficient evidence is available to assess the relationship between vegetable and fruit intake and blood pressure or serum cholesterol.



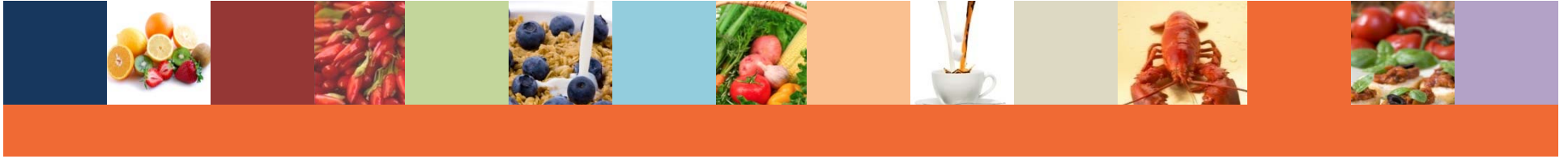
Vegetables & Fruits - Conclusions

- Evidence for an association between increased vegetable and fruit intake and lower body weight is modest with a trend towards decreased weight gain over 5+ years in middle adulthood; no conclusions can be drawn from the evidence on the efficacy of increased vegetable and fruit consumption in weight loss diets. (Moderate)



Vegetables & Fruits - Conclusions

- Limited and inconsistent evidence suggests an inverse association between total vegetable and fruit consumption and the development of type 2 diabetes.
- Evidence also indicates that some types of vegetables and fruits are probably protective against some cancers.



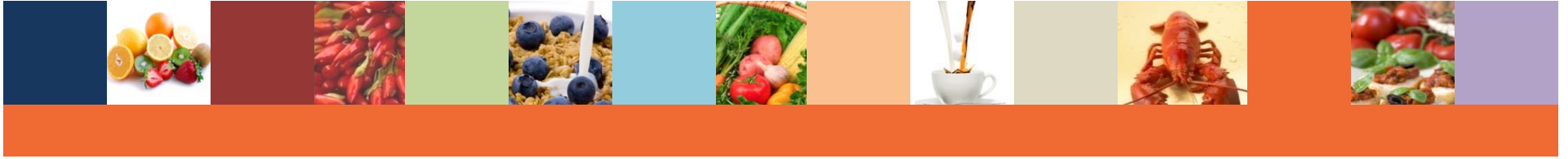
Dry Beans and Peas

What is the relationship between the intake of dry beans and peas and selected health outcomes?



Dry Beans and Peas - Conclusions

- Limited evidence exists to establish a clear relationship between intake of dry beans and peas and body weight.
- Limited evidence suggests that dry beans and peas have unique abilities to lower serum lipids; most of the lipid lowering seen in studies is related to the soluble fiber content of these products.
- Limited evidence is available to determine a relationship between the intake of dry beans and peas and type 2 diabetes.



Childhood Adiposity - Recommendations

- Increase vegetables and fruits in childhood; an important public health goal, not only to increase shortfall nutrients, but also because such diets tend to be lower in energy density, and therefore likely to improve energy balance and prevent obesity.



Total Diet DGAC Conclusions

Key Topics:

- Overweight/obese nation
- Develop healthy dietary patterns in childhood and adolescence
- Maintain energy intake within calorie needs
- Maximize nutrient density by emphasizing whole grains, **vegetables, fruits**, milk/milk products, and oils
- Reduce solid fats and added sugars and sodium
- Flexible eating patterns

Dietary Guidelines for Americans for a Healthier Life

2010





Ch 4: Foods and Nutrients to Increase

Key Recommendations

Individuals should meet the following recommendations as part of a healthy eating pattern and while staying within their calorie needs.

Increase vegetable and fruit intake.

Eat a variety of vegetables, especially dark-green and red and orange vegetables and beans and peas.

Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains.

Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.⁵⁸

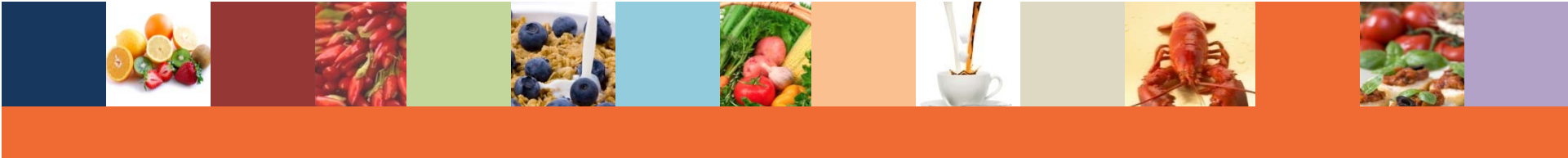
Choose a variety of protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds.

Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.

Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils.

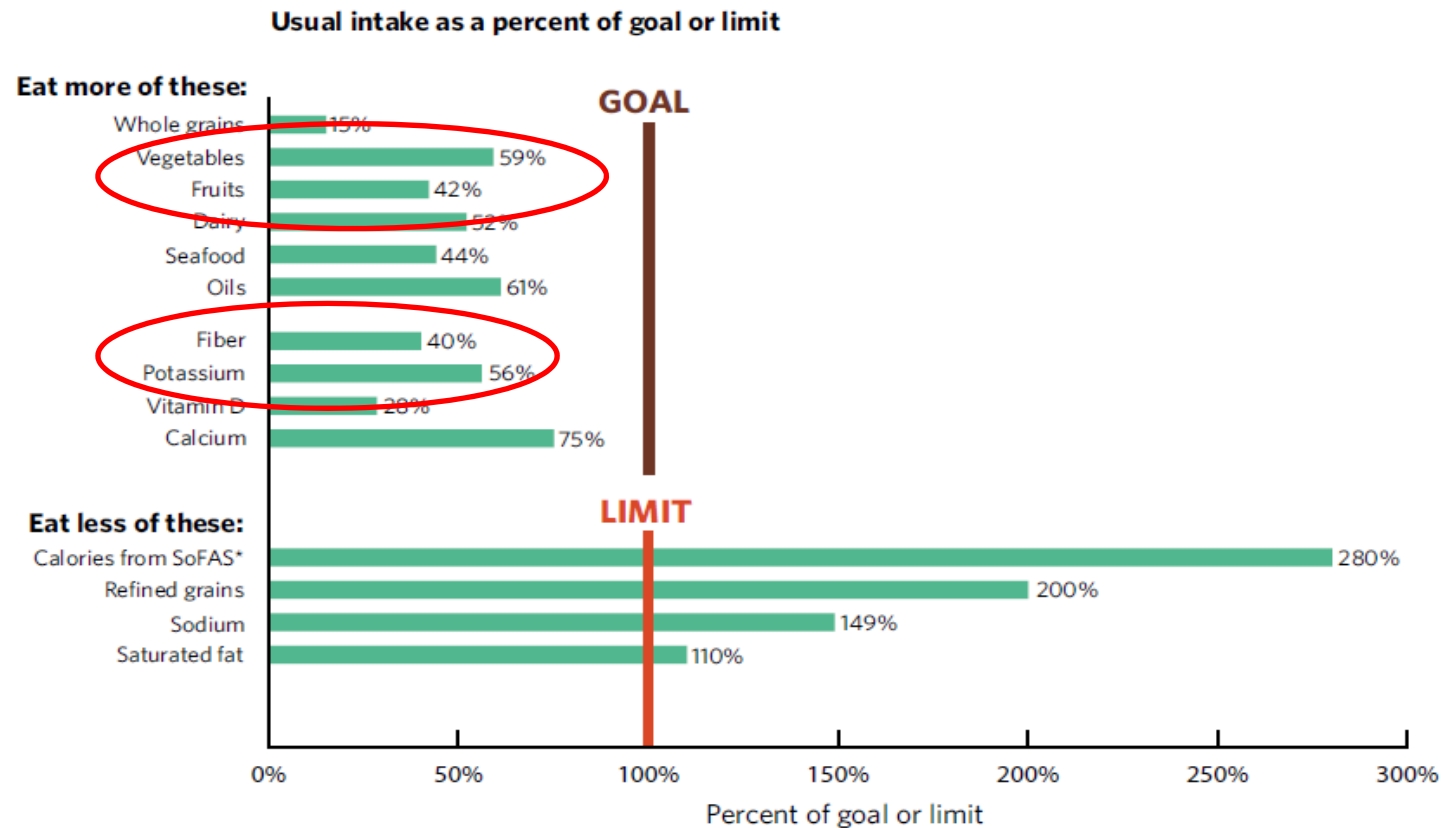
Use oils to replace solid fats where possible.

Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in American diets. These foods include vegetables, fruits, whole grains, and milk and milk products.

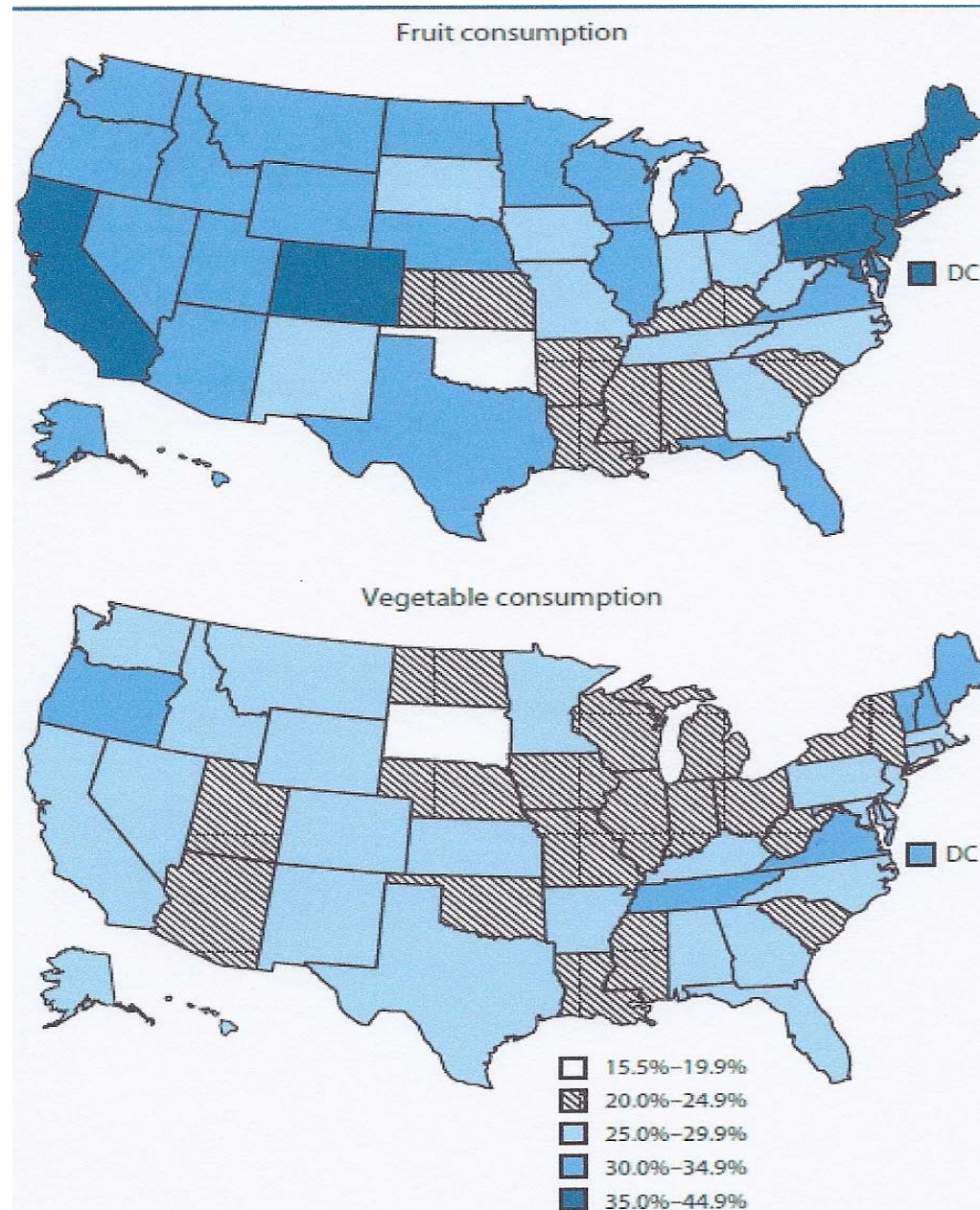


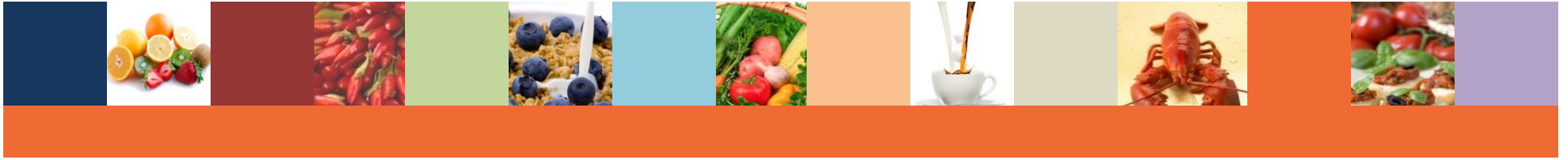
Comparison of Consumption to Recommendations

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



Trends in fruits (2 or more) & vegetable (3 or more) consumption among adults: US – 2000-2009 - CDC





Dietary fiber intake is low

- AI for fiber:
 - 25 g/day women
 - 38 g/day men
- Typical fiber intake in US is 15 grams per day

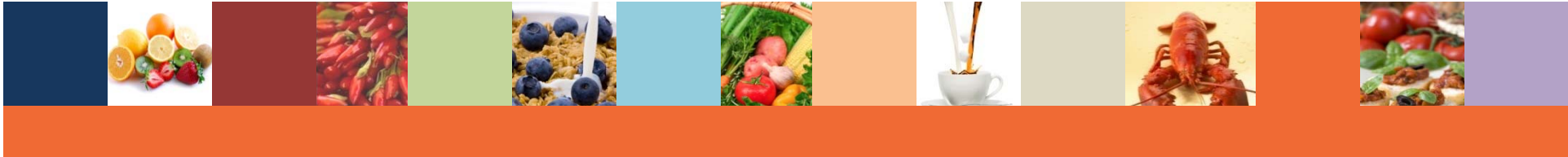


Potassium intake is low

- The AI for adults for potassium is 4,700 mg per day.
- NHANES data 2003-2006 – Typical potassium daily intake in US*
 - Naturally occurring in foods/beverages 2591 mg \pm 19
 - Plus enriched/fortified 2615 mg \pm 19
 - Plus dietary supplements 2631 mg \pm 19
- NHANES data 2003-2006 - Only 3% of the population consumed potassium (from all sources – foods, fortified foods and supplements) at or above the AI.*

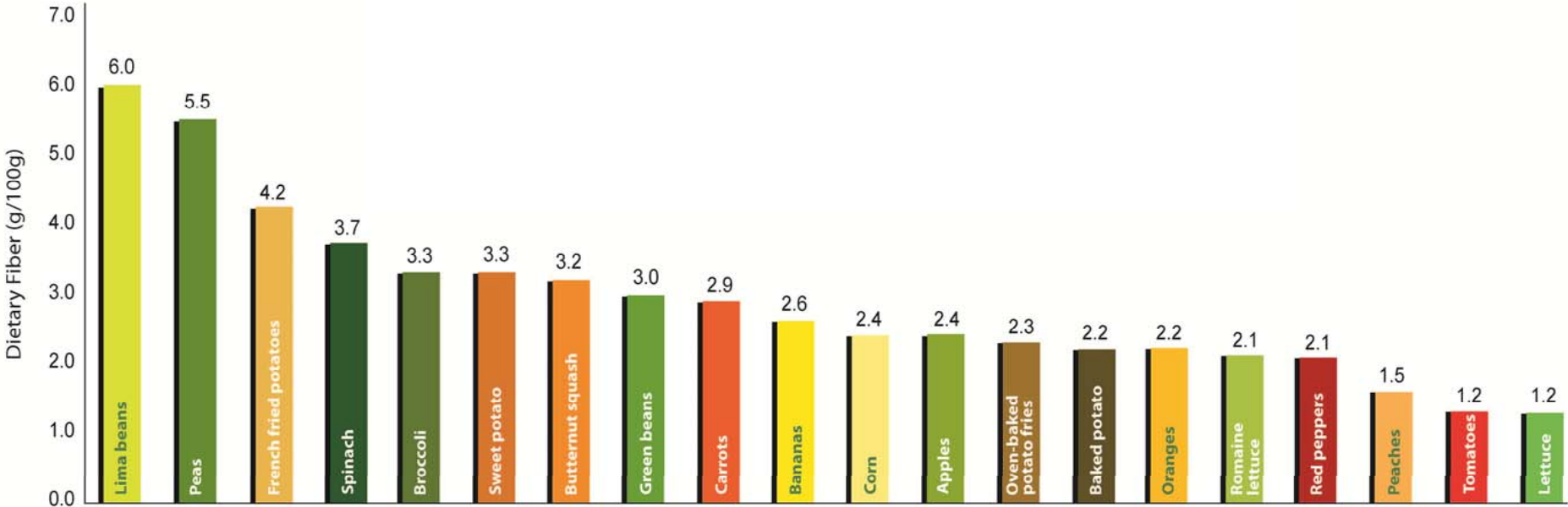
*Fulgoni VL 3rd, Keast DR, Bailey RL, Dwyer J. J Nutr. 2011 Oct;141(10):1847-54. Epub 2011 Aug 24. Foods, fortificants, and supplements: where do Americans get their nutrients?

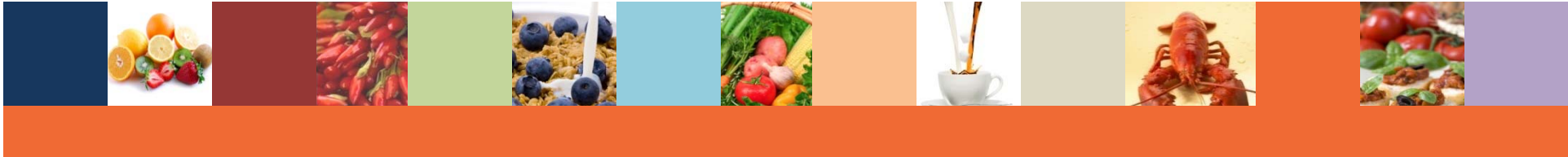
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3174857/?tool=pubmed>



Dietary Fiber Content of Commonly Consumed Fruits and Vegetables

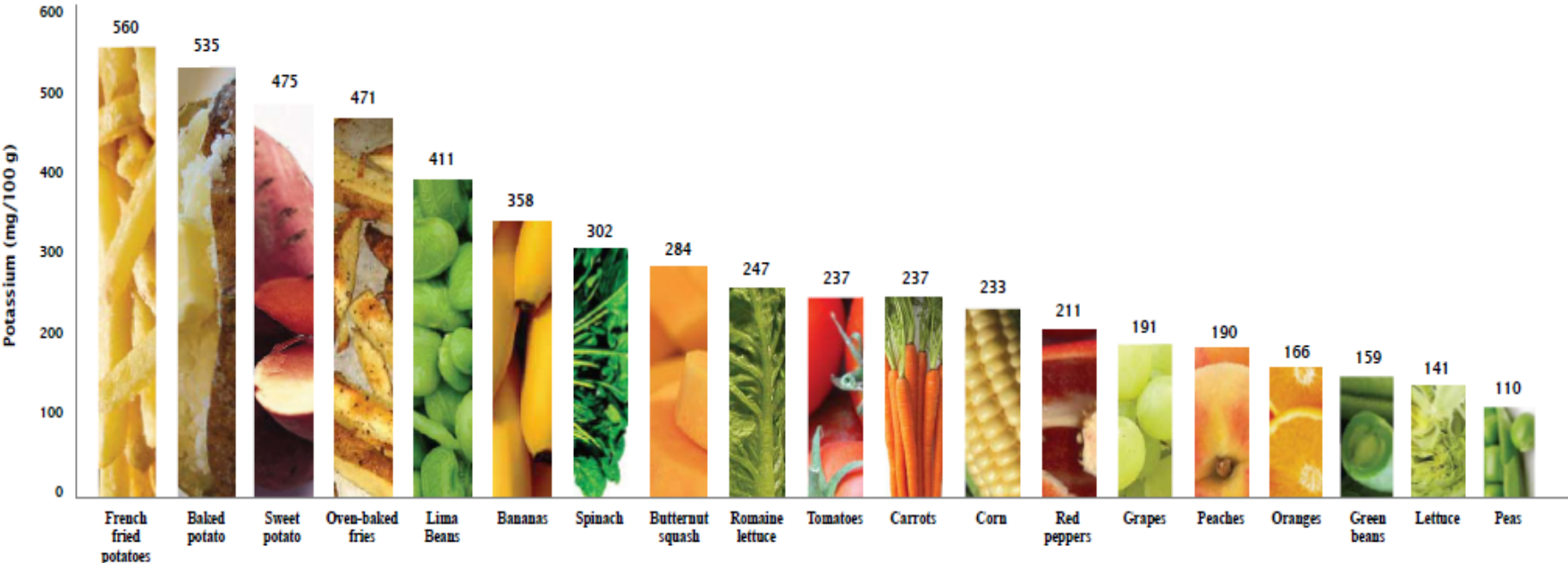
(U.S. Department of Agriculture, Agricultural Research Service, 2011. USDA National Nutrient Database for Standard Reference, Release 24)





Potassium Content of Commonly Consumed Fruits and Vegetables

(U.S. Department of Agriculture, Agricultural Research Service, 2011. USDA National Nutrient Database for Standard Reference, Release 24)





Dietary Fiber and Potassium in Common Fruits and Vegetables

NLEA Servings	Dietary Fiber - g	Potassium - mg
Potato, boiled	3.0	348
Iceberg lettuce	0.7	80
Tomato	1.8	351
Carrot	2.5	201
Sweet corn	1.8	286
Banana	3.1	422
Apple with skin	4.4	195
Orange	3.4	256
Green grapes	1.1	241

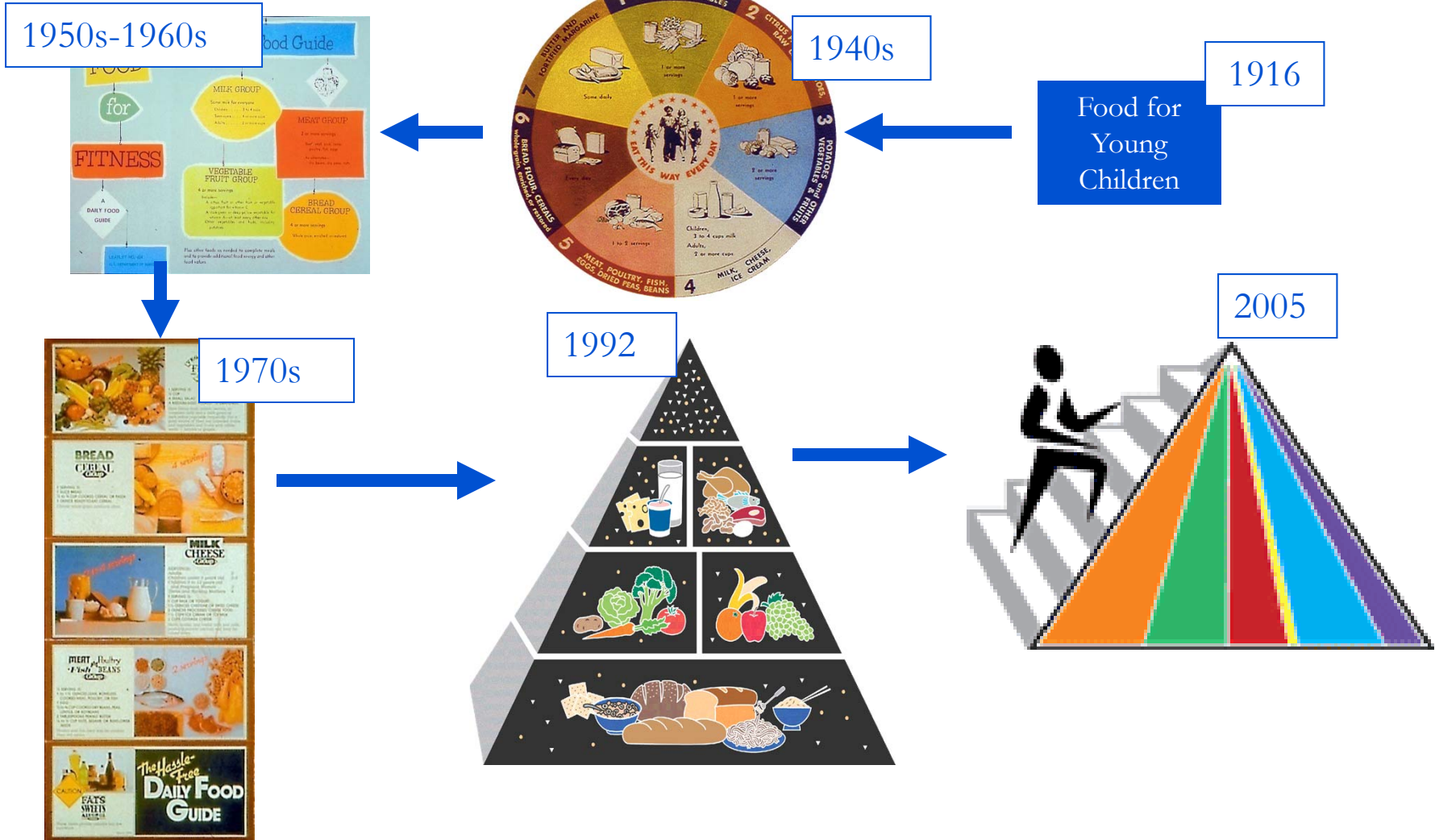
Slide 26

LTM4

Frances - I will fill in this this slide and sort by fiber per 100 grams if you agree with the format. I included top consumed fruits/veg and only one example of potatoes to be consistent.

Liz Marr, 10/16/2011

Food advice: Evolution of USDA's Food Guidance – Moderation and Variety





MyPlate.gov





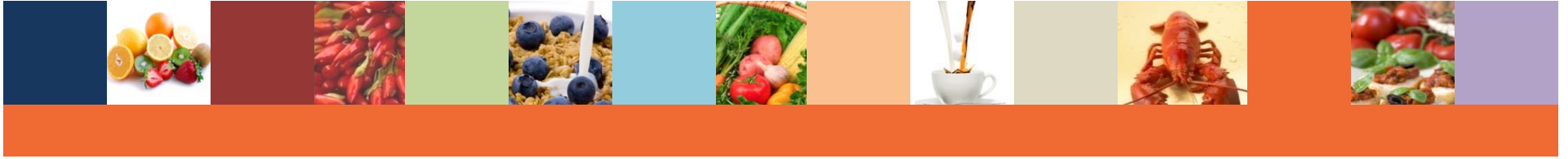
Key Consumer Messages

- **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.



Fruit Group

- Any fruit or 100% fruit juice counts as part of the Fruit Group.
- Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed.
- For the best nutritional value:
 - Make most of your choices whole or cut-up fruit rather than juice, for the benefits dietary fiber provides.
 - Select fruits with more potassium often, such as bananas....and orange juice.
 - When choosing canned fruits, select fruit canned in 100% fruit juice or water rather than syrup.
 - Vary your fruit choices. Fruits differ in nutrient content.



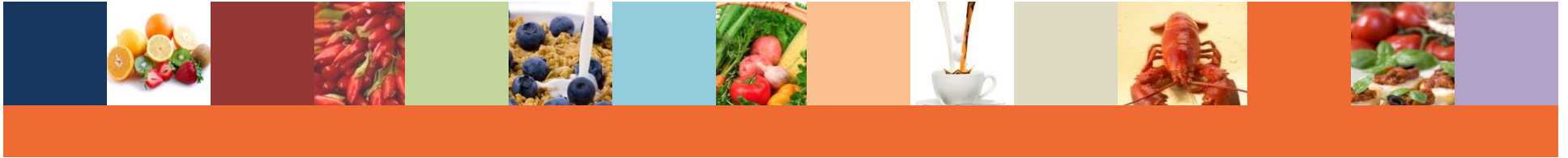
Vegetable Group

- Any vegetable or 100% vegetable juice counts as a member of the Vegetable Group.
- Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed.
- Vegetables are organized into 5 subgroups, based on their nutrient content
 - Dark green vegetables
 - Red and orange vegetables
 - Starchy vegetables
 - Other vegetables
 - Beans and peas



Vegetable Group

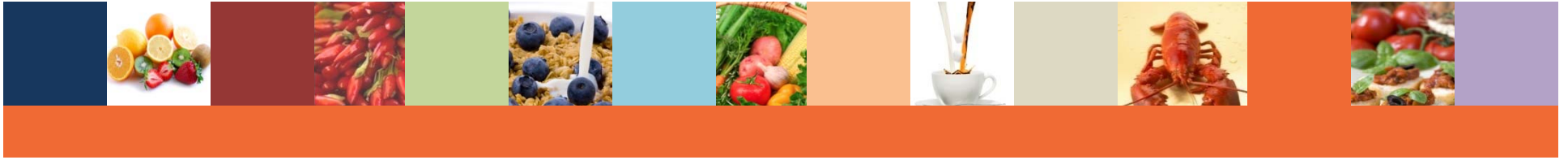
- For the best nutritional value:
 - Select vegetables with more potassium often, such as sweet potatoes, white potatoes, white beans, tomato products....
 - Sauces or seasonings can add calories, saturated fat, and sodium to vegetables. Use the Nutrition Facts label to compare....
 - Prepare more foods from fresh ingredients to lower sodium intake.
 - Buy canned vegetables labeled "reduced sodium," "low sodium," or "no salt added."



USDA MyPlate

How Many Vegetables Are Needed Weekly?

		Dark green vegetables	Red and orange vegetables	Beans and peas	Starchy vegetables	Other vegetables
	AGE IN YEARS	CUPS PER WEEK				
Children	2–3	½	2½	½	2	1½
	4–8	1	3	½	3½	2½
Girls	9–13	1½	4	1	4	3½
	14–18	1½	5½	1½	5	4
Boys	9–13	1½	5½	1½	5	4
	14–18	2	6	2	6	5
Women	19–30	1½	5½	1½	5	4
	31–50	1½	5½	1½	5	4
	51+	1½	4	1	4	3½
Men	19–30	2	6	2	6	5
	31–50	2	6	2	6	5
	51+	1½	5½	1½	5	4



Conclusions

- Vegetables and fruits vary greatly in nutrient content.
- Eat and enjoy a variety of fruits and vegetables because all really do fit on *MyPlate*.

