OLLI AT VANDERBILT

Osher Lifelong Learning Institute

Nutrition and Health: Issues and Insights

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Assistant Professor, Nutritional Sciences
Vanderbilt University School of Nursing

DATES: Tuesdays and Thursdays, June 18, 20, 25, 27; July 9, 11
TIME: 10:00 a.m.–11:30 a.m.
LOCATION: Scarritt Bennett Center, Laskey Hall, 1008 19th Ave S

Food and Health Survey
IFIC – International Food and Information Council

Source: www.foodinsight.org

HALF OF THOSE POLLED BELIEVE IT IS EASIER TO DO THEIR TAXES THAN TO FIGURE OUT HOW TO EAT HEALTHFULLLY

THE BREAKDOWN:

52%* **OF THOSE POLLED**
Think it is harder to figure out **what you should and shouldn't eat to be healthier.**

VS.

48% **OF THOSE POLLED**
Think it is harder to figure out **how to do your own taxes.**

Those most in need of learning how to eat healthfully, those with high BMI, heart disease or cholesterol issues, or high blood pressure – ARE MORE APT TO FIND IT DIFFICULT.

GROUPS MORE LIKELY TO SAY FIGURING OUT WHAT TO EAT IS HARDER:

MEN (55%) vs. 48% of WOMEN
NO COLLEGE DEGREE (56%) vs. 40% of COLLEGE GRADS
BMI in the OBESE (60%) or OVERWEIGHT (54%) range vs. 42% low BMI
HEART DISEASE (59%) or HIGH CHOLESTEROL (54%) and HIGH BLOOD PRESSURE (57%) vs. 48% NO HEALTH CONDITIONS

https://health.usnews.com/best-diet/best-diets-overall

Best Diets Overall

#1 Mediterranean Diet

#2 DASH Diet

#3 Flexitarian Diet

#4 MIND Diet

#4 Weight Watchers Diet

#6 Mayo Clinic Diet

#6 Volumetrics Diet

#8 TLC Diet

How Eating Plans Evaluated

https://health.usnews.com/wellness/food/articles/how-us-news-ranks-best-diets

- A panel of nationally recognized experts in diet, nutrition, obesity, food psychology, diabetes and heart disease rated each diet considering:
  - how easy to follow
    - https://health.usnews.com/wellness/food/articles/what-makes-a-diet-easy-to-follow
  - ability to produce short-term and long-term weight loss
  - nutritional completeness
    - conformance with 2015 Dietary Guidelines for Americans
  - safety and potential for preventing and managing diabetes and heart disease

Jamie Pope
Vanderbilt University

Steven Nizielski
Grand Valley State University

Nutrition: FOR A CHANGING WORLD

SECOND EDITION

Chapter 2

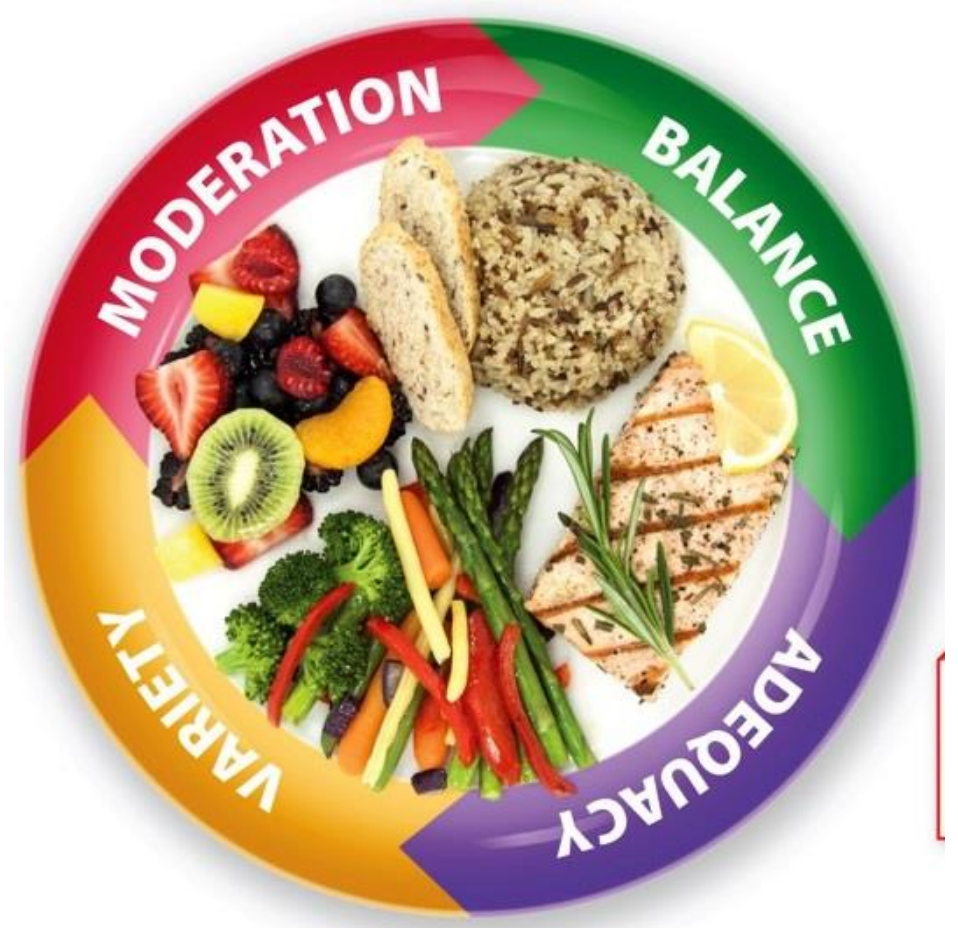
Healthy Diets

What is a Healthy Diet?

- ***A healthy diet should:***
  - ***Meet nutrient and calorie needs at different life stages***
  - ***Help maintain a healthy body weight***
  - ***Help prevent chronic diseases***
  - ***Foster an enjoyment of eating and appreciation of food***

Adequacy, balance, variety and moderation are the core characteristics of healthy diets

- Characteristics….
  - *Adequate* amounts of essential nutrients
  - *Balanced* across food groups and macronutrients
  - *Variety* of foods
  - *Moderation* and not overindulging



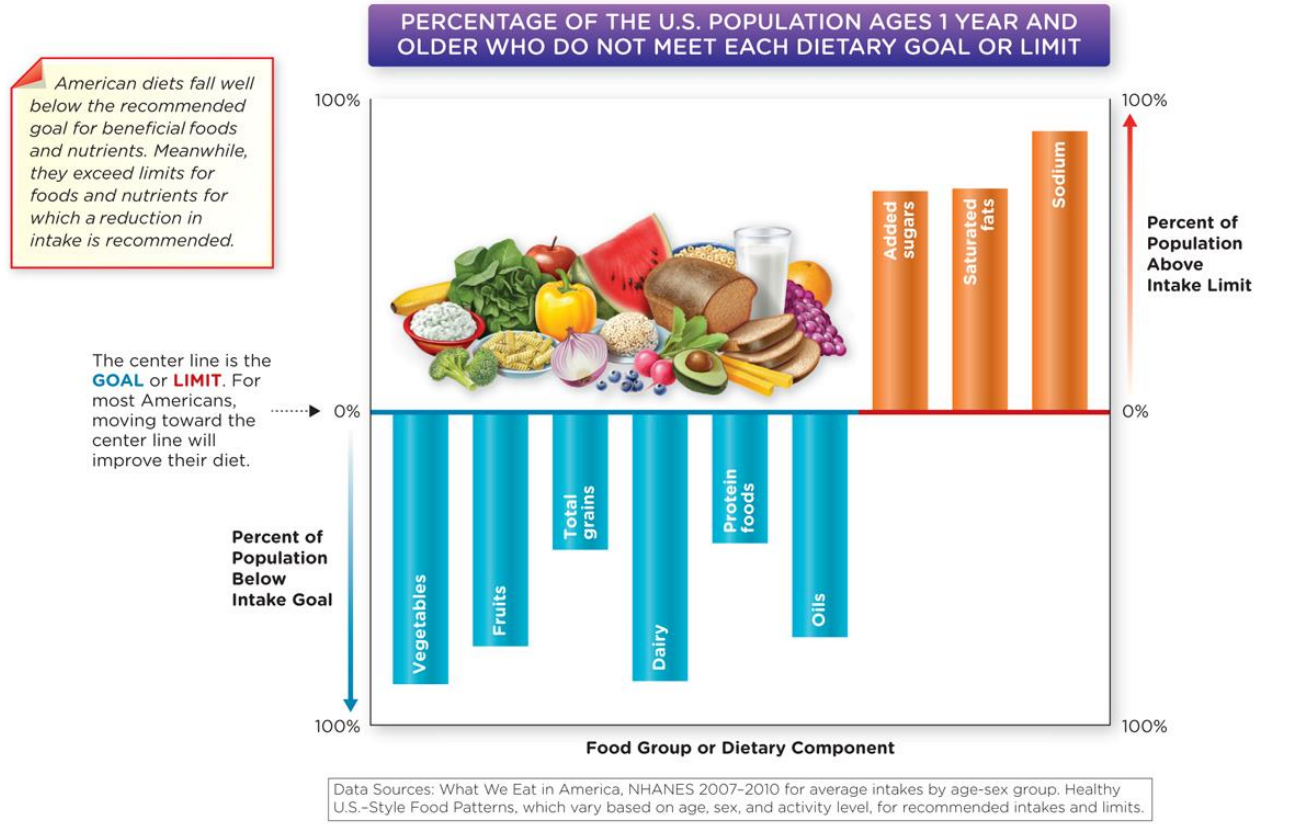
Infographic 2.1
Scientific American: Nutrition for a Changing World

Healthy diets include foods that are good sources of a number of nutrients relative to the amount of calories.

- Nutrient-dense foods
  - Provide healthy nutrients in appreciable amounts relative to calories
- Energy-dense (or empty calorie) foods
  - Provide calories and low amounts of nutrients
- It is easier to build an adequate and healthy diet around nutrient-dense foods than around empty calorie foods.

The typical American diet does not align with recommended limits or goals

- Excessive amounts of **energy-dense foods**
- Insufficient amounts of **nutrient-dense foods**



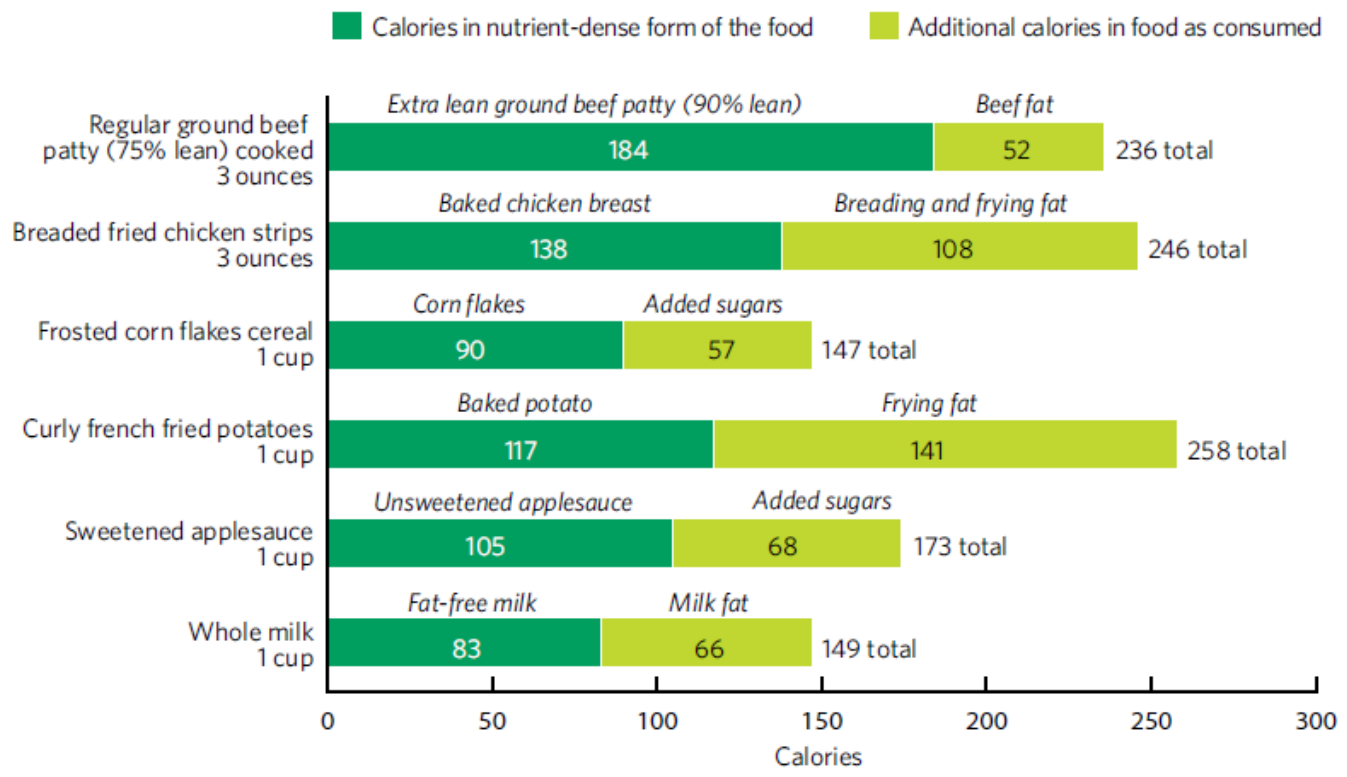
INFOGRAPHIC 2.4

Healthy diets include foods that are good sources of a number of nutrients relative to the amount of calories

- ***Nutrient-dense foods***
  - *provide healthy nutrients in appreciable amounts relative to calories*
- ***Energy dense** (or empty calorie) **foods***
  - *provide calories and low amounts of nutrients*
- It is easier to build an adequate and healthy diet around nutrient-dense foods than around empty calorie foods

Nutrient Dense and Non-Nutrient Dense Forms of Sample Foods

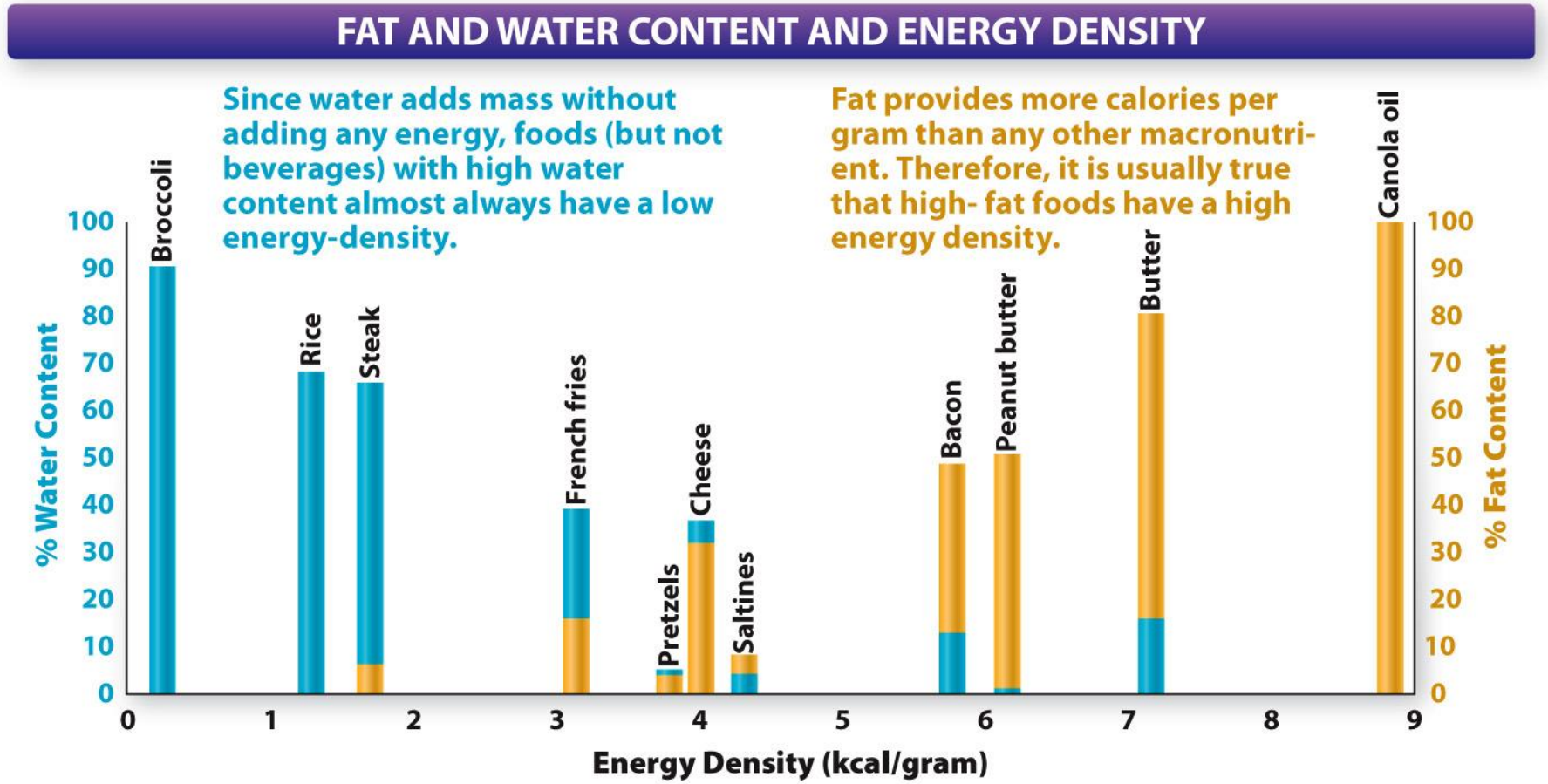
FIGURE 5-2. Examples of the Calories in Food Choices That Are Not in Nutrient Dense Forms and the Calories in Nutrient Dense Forms of These Foods



Energy density is the number of calories in a given volume of food

- ***Energy density*** *(calorie-density)*
  - Number of calories in a portion of food divided by the food's weight in grams
    - Example: 107 calories in 20 grams of potato chips
    - Energy density: 107/20 = 5.4
- *Fat, sugar and alcohol tend to increase energy density*
- *Fluid (water) and fiber tend to decrease energy density*

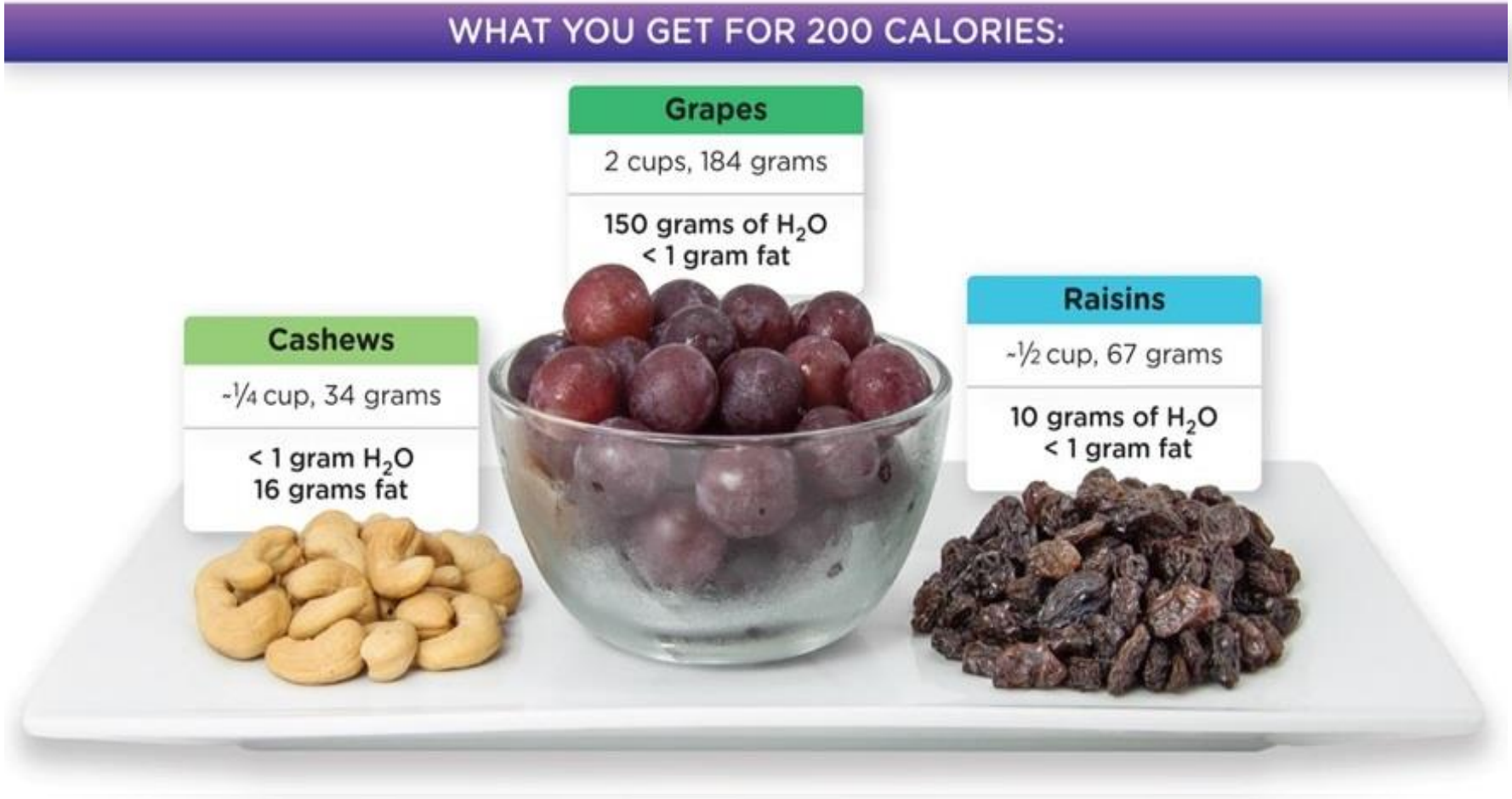
The water, fiber, and fat content of foods is the primary factor that determines energy density



Infographic 2.3 part 1

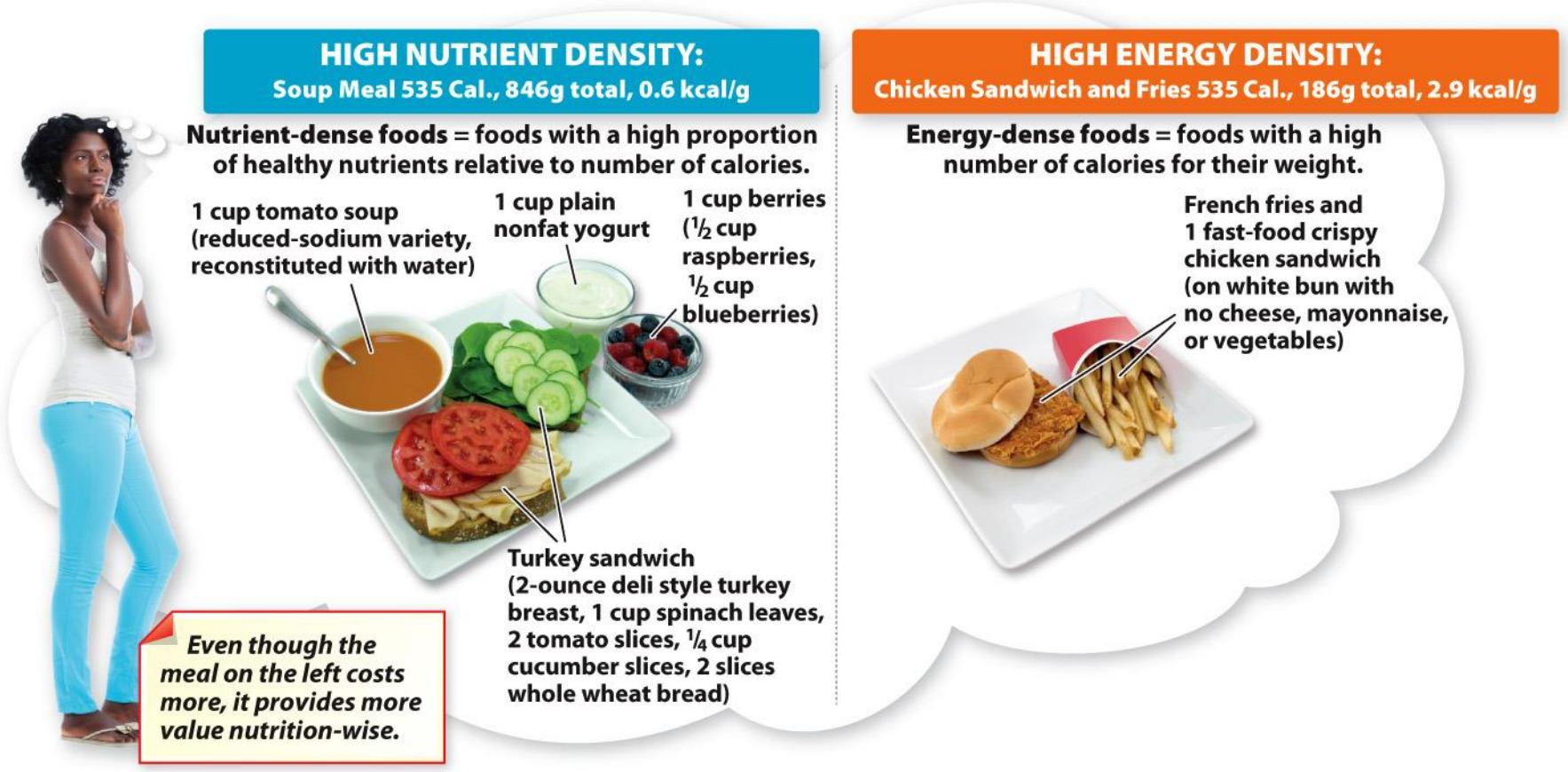
Scientific American: Nutrition for a Changing World

For an equal number of calories, portion size decreases as energy-density increases



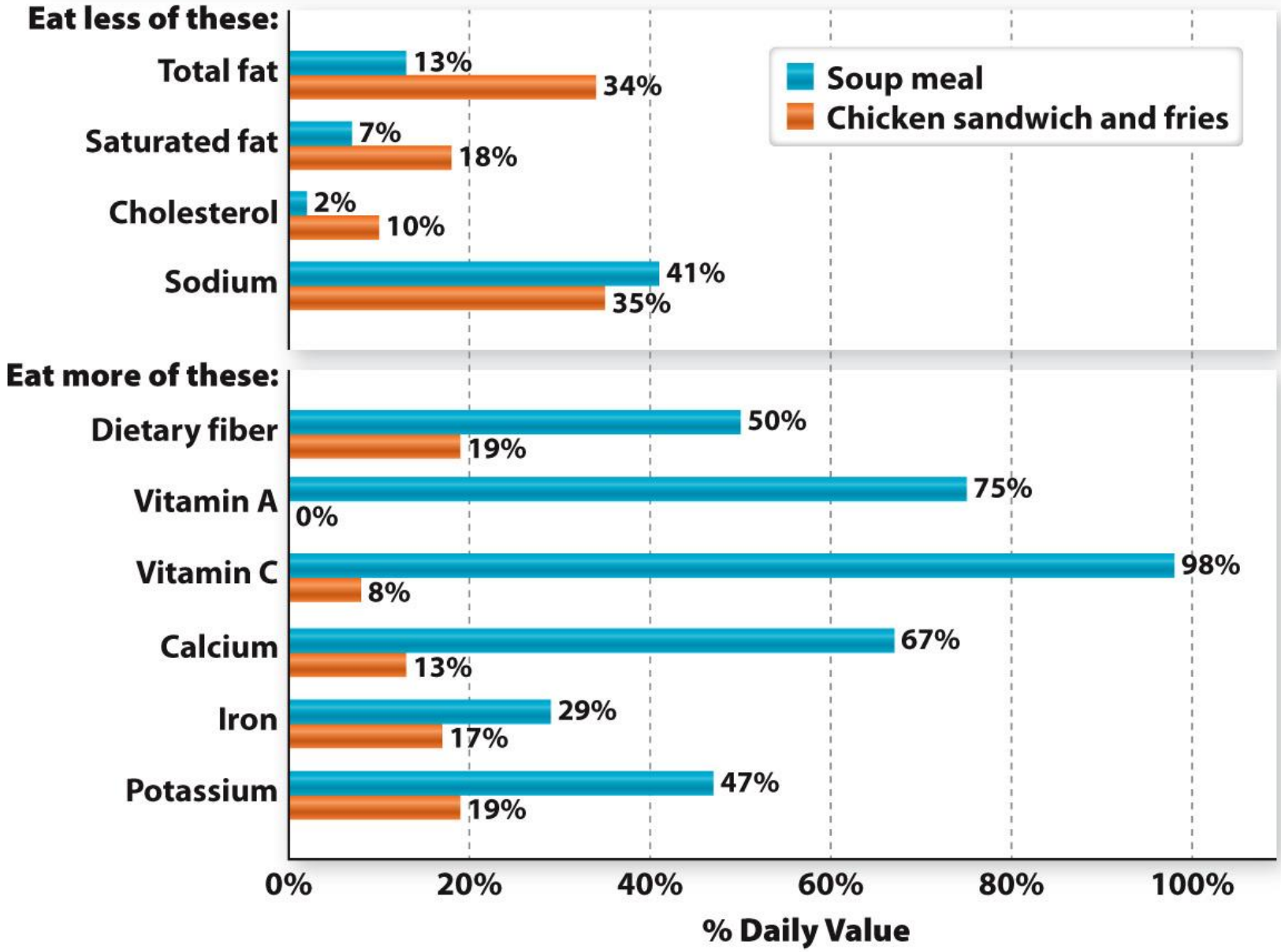
Infographic 2.3 part 2
Scientific American: Nutrition for a Changing World

Eating a low energy-dense diet allows you to eat a larger volume of food, all while maintaining energy balance



Infographic 2.2 part 1
Scientific American: Nutrition for a Changing World

NUTRITION FACTS: SOUP MEAL VERSUS CHICKEN SANDWICH AND FRIES



Infographic 2.2 part 2

Scientific American: Nutrition for a Changing World

Energy Density of Common Foods

Higher energy-dense food	calories/g	Lower energy-dense food	calories/g
Taco shell	4.7	Corn tortilla	2.2
Bologna	3.1	Sliced turkey breast	0.9
Fried chicken	2.8	Grilled chicken	1.7
Fried pork chop	2.8	Broiled pork chop	2.0
Cheeseburger	2.7	Bean burrito	1.9
Hash brown potatoes	2.2	Boiled potato	0.9
Fried fish	2.2	Broiled fish	1.2
Fried rice	1.6	Rice	1.3
Potato salad	1.4	Tossed salad with salad dressing	1.1
Frozen, sweetened strawberries	1.1	Fresh strawberries	0.3

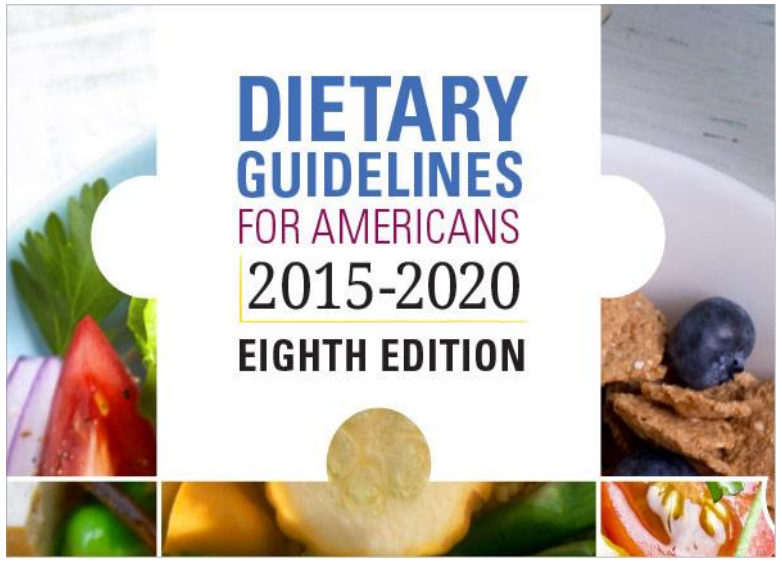
https://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/r2p_energy_density.pdf

Comparison of three methods to reduce energy density: effects on daily energy intake (Appetite) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3666187/

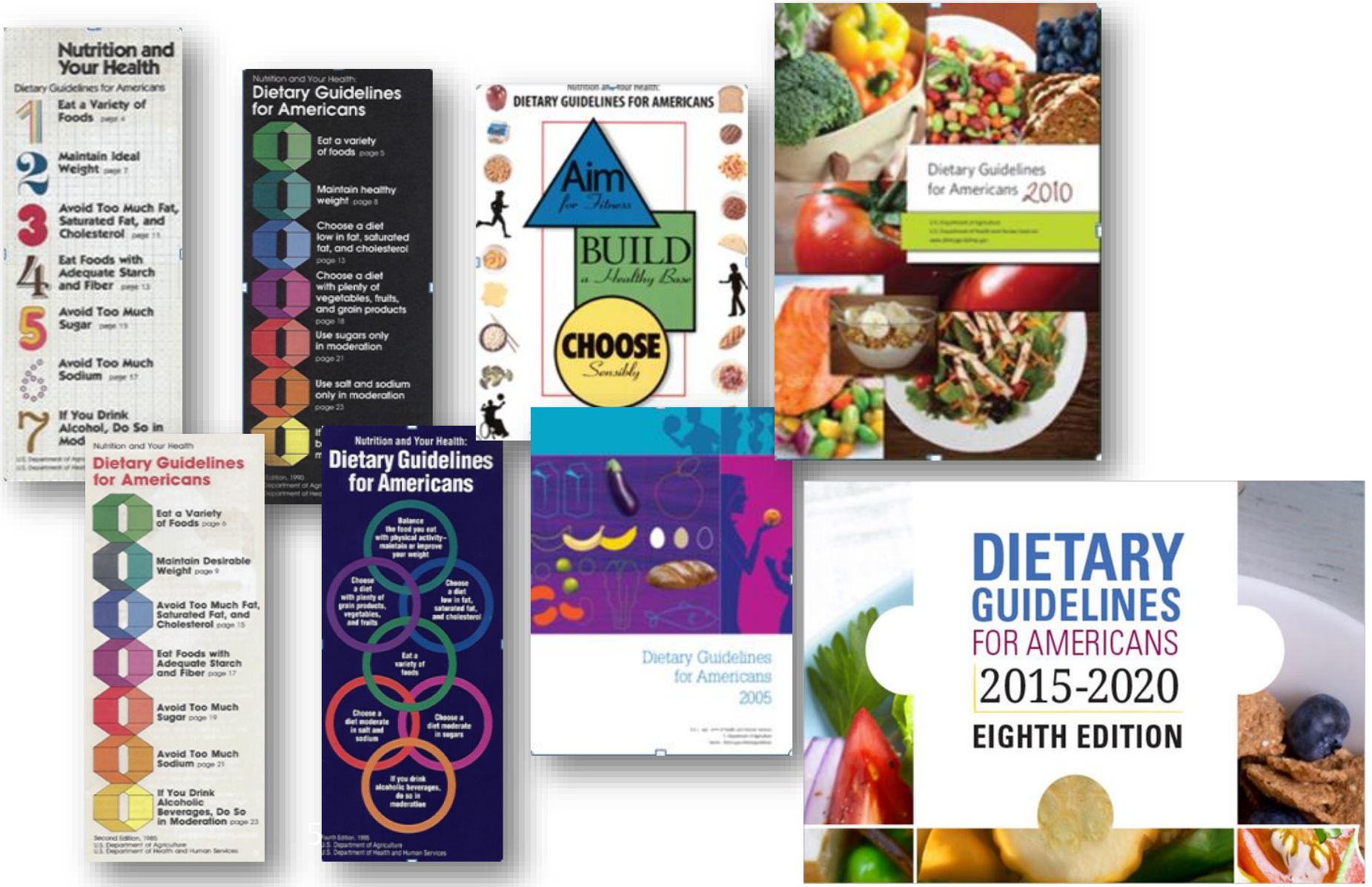
Processed foods exist along a continuum

Dietary Guidelines for Americans are updated every five years

- *Issued by the US Department of Agriculture (USDA) and US Department of Health and Human Services (HHS)*
  - *http://health.gov/dietaryguidelines/2015/guidelines/*
- *Evidence-based guidelines to promote health and reduce risk for major chronic disease*
  - *Intended for health professionals to help people age 2 and over consume a healthy diet and prevent chronic disease*
  - *basis for Federal food and nutrition policies, programs, and education*



Dietary Guidelines for Americans over the years….



2015 Dietary Guidelines for Americans
Overview

- Five overarching guidelines to steer population towards a healthy eating pattern
  - *2015 edition focuses more on eating patterns than individual food groups or dietary components*
- Followed by key recommendations which:
  - Specify foods that a healthy eating pattern includes
  - Nutrients that a healthy eating pattern limits

2015 Dietary Guidelines for Americans

1. *Follow a healthy eating pattern across the lifespan*
2. *Focus on variety, nutrient density, and amount*
3. *Limit calories from added sugars and saturated fats and reduce sodium intake*
4. *Shift to healthier food and beverage choices*
5. *Support healthy eating patterns for all*

INFOGRAPHIC 2.5
Credits: U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 – 2020 Dietary Guidelines for Americans. 8th Edition. December 2015. http://health.gov/dietaryguidelines/2015/guidelines/.

2015 Dietary Guidelines for Americans

Healthy Eating Patterns

- Adaptable framework in which individuals can enjoy foods that meet their personal, cultural, and traditional preferences and fit within their budget
- Healthy U.S. Style Eating Pattern
  - Based on the types and proportions of foods Americans typically consume, but in nutrient-dense forms and appropriate amounts
  - Provided at 12 different calorie levels
- Other examples of healthy eating patterns that translate and integrate the recommendations
- http://health.gov/dietaryguidelines/2015/guidelines/chapter-1/examples-of-other-healthy-eating-patterns/
  - Healthy Mediterranean-Style Eating Pattern
  - Healthy Vegetarian Eating Pattern

2015 Dietary Guidelines for Americans

Shifts in food choices

- Emphasize the need to make substitutions
  - Choosing nutrient-dense foods and beverages in place of less healthy choices—rather than increasing intake overall
  - Most individuals would benefit from shifting food choices both within and across food groups

2015 Dietary Guidelines for Americans

2015 Dietary Guidelines for Americans
Cholesterol

- …."the Key Recommendation from the 2010 DGAs to limit consumption of dietary cholesterol to 300 mg per day is not included in the 2015 edition, but this change does not suggest that dietary cholesterol is no longer important to consider when building healthy eating patterns.“
- Average U.S. intake of cholesterol 270 mg per day
- Recommendation included to “consume as little as possible….”

2015 Dietary Guidelines for Americans

Sodium

- 2010:
  - General population reduce daily sodium intake to < 2,300 mg
  - Persons who are aged 51 and older, African American or have hypertension, diabetes or chronic kidney disease were encouraged to further limit sodium to 1,500 mg per day
- 2015:
  - *Recommendation to reduce daily sodium intake to < 2,300 mg* was maintained
  - The 1,500-mg recommendation limited to adults with hypertension or prehypertension
- Average U.S. intake of sodium is 3,400 mg per day
- Tolerable Upper Intake Limit (UL) from the IOM Dietary Reference Intakes is 2,300 mg
  - Age specific DGA sodium recommendations align with the UL for age

2015 Dietary Guidelines for Americans

Added Sugars

- General messaging to reduce intake of added sugars was maintained from 2010 to 2015 with the addition of a specified energy limit
- *2015: Americans encouraged to "consume < 10 percent of calories per day from added sugars"*

2015 Dietary Guidelines for Americans
Protein

- 2010: “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"
- 2015: changed to recommend a healthy eating pattern including "a variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products.“
  - *The overconsumption of protein by teen boys and adult men in particular prompted the 2015 DGAs to recommend that they specifically reduce consumption of protein foods by decreasing intake of meats, poultry and eggs.*

2015 Dietary Guidelines for Americans

Fats

- Saturated fats
  - *Key recommendation to consume < 10 percent of calories from saturated fatty acids* was maintained from the 2010 to 2015 DGAs
- Trans fatty acids
  - Advice to keep trans fat intake as low as possible is consistent from 2010 to 2015
  - June 2015: FDA bans trans fatty acids from U.S. food supply
    - No longer “generally recognized as safe” (GRAS)
    - Food manufacturers have 3 years to remove PHOs (partially hydrogenated oils)
- Solid fats
  - 2010: Use of term "solid fat" and acronym “SoFAS” (Solid Fats and Added Sugars)
  - 2015: Term and acronym no longer used. The overall messaging was similar, with Americans encouraged to limit solid fat intake and to replace solid fats with oils.

2015 Dietary Guidelines for Americans

Dietary Fiber

- 2015 DGAs maintain recommendation to *consume at least half of grains as whole grains* (limit refined grains)
- Although no longer mentioned in the key recommendations, the language to choose foods rich in dietary fiber was consistent between 2010 and 2015

2015 Dietary Guidelines for Americans
Alcohol

- While alcohol was no longer mentioned in the key recommendations, the language remained the same in the 2015 Dietary Guidelines:
  - "If alcohol is consumed, it should be in moderation — up to one drink per day for women and up to two drinks per day for men — and only by adults of legal drinking age.“
    - “Drink” defined as: 12 oz. beer, 5 oz. wine, or 1.5 oz. 80 proof liquor

2015 Dietary Guidelines for Americans

Caffeine

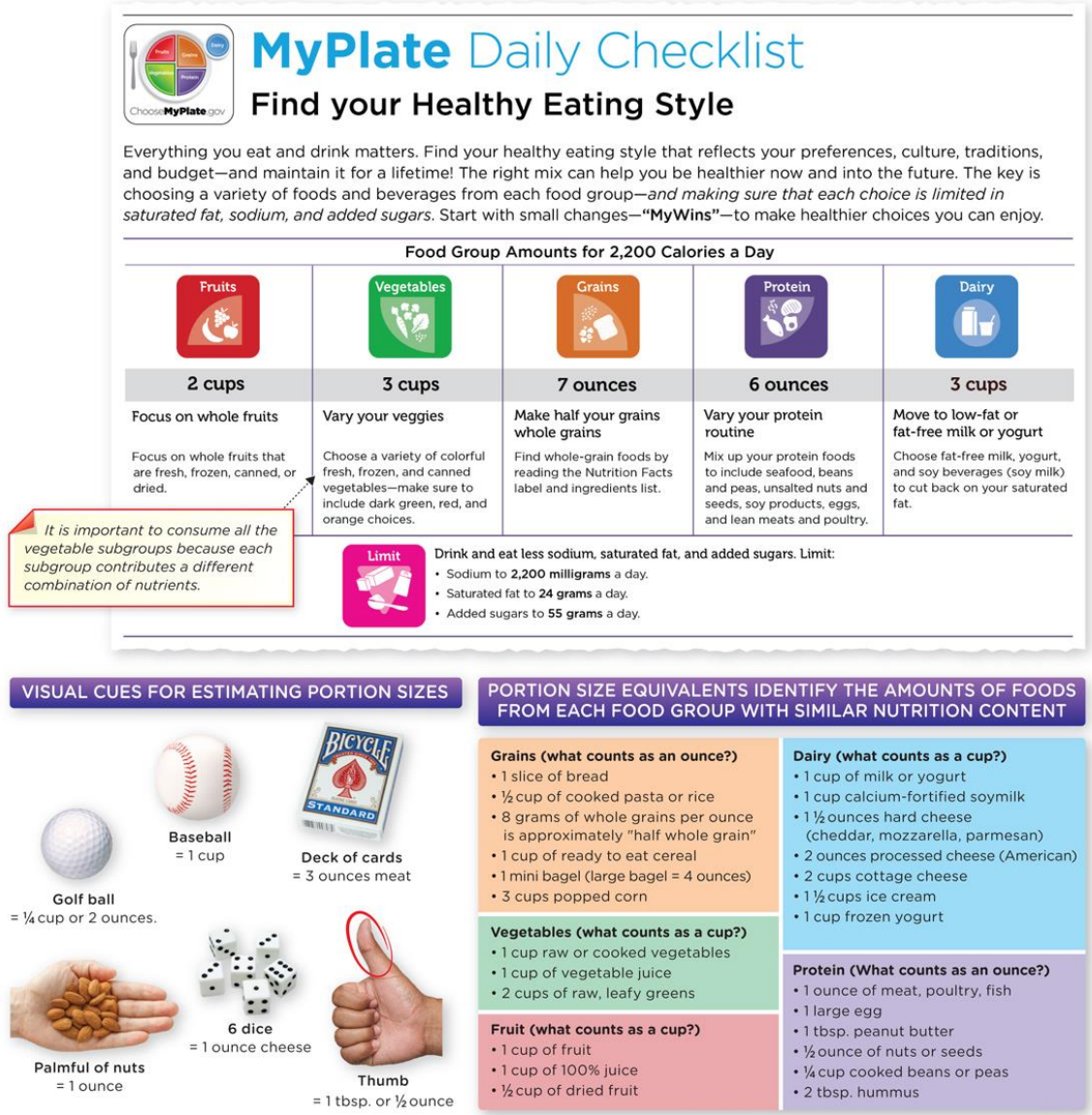
- Caffeine was not mentioned in the 2010 DGAs, but was thoroughly discussed in the 2015 guidelines. While caffeine is not a nutrient and does not have a daily requirement, guidance on coffee consumption was provided:
- "Moderate coffee consumption (three to five 8-oz cups/day or providing up to 400 mg/day of caffeine) can be incorporated into healthy eating patterns."
- This included cautions concerning drinks with added sugars, mixing alcohol and caffeine, individuals who do not already consume caffeinated beverages and women who are pregnant, trying to become pregnant or who are breast-feeding.

The USDA updates tools to implement dietary advice

INFOGRAPHIC 2.7

Nutrition for a Changing World, 1e © 2016 by W. H. Freeman and Company

Photo credits (left to right): National Archives/Records of the Office of Government Reports, USDA/National Agricultural Library, USDA/National Agricultural Library, USDA/Center for Nutrition Policy and Promotion, USDA/Center for Nutrition Policy and Promotion



INFOGRAPHIC 2.8

Nutrition for a Changing World, 1e © 2016 by W. H. Freeman and Company

Photo credits (top—all): Center for Nutrition Policy and Promotion/USDA; (bottom—baseball): Pavel Hlystov/Shutterstock; (bottom—thumb): foto76/Shutterstock; (bottom—all others): Eli Ensor

PORTION SIZE EQUIVALENT

Grains (what counts as an ounce?)
- 1 slice of bread
- ½ cup of cooked pasta or rice
- ½ cup of cooked cereal
- 1 cup of ready to eat cereal
- 3 cups popped corn
- 1 mini bagel (large bagel = 4 ounces)
- 1 pancake or waffle (size of a CD)

Vegetables (what counts as a cup?)
- 1 cup raw or cooked vegetables
- 1 cup of vegetable juice
- 2 cups of raw, leafy greens

Fruit (what counts as a cup?)
- 1 cup of fruit
- 1 cup of 100% juice
- ½ cup of dried fruit

Dairy (what counts as a cup?)
- 1 cup of milk or yogurt
- 1 cup calcium-fortified soymilk
- 1 ½ ounces hard cheese (cheddar, mozzarella, parmesan)
- 2 ounces processed cheese (American)
- 2 cups cottage cheese
- 1½ cups ice cream
- 1 cup frozen yogurt

Protein (What counts as an ounce?)
- 1 ounce of meat, poultry, fish
- 1 egg
- 1 tbsp. peanut butter
- ½ ounce of nuts or seeds
- ¼ cup cooked beans or peas
- 2 tbsp. hummus

Infographic 2.7 part 3
Scientific American: Nutrition for a Changing World

VISUAL CUES FOR ESTIMATING PORTION SIZES

Baseball
= 1 cup

Deck of cards
= 3 ounces meat

Golf ball
= ¼ cup or 2 ounces.

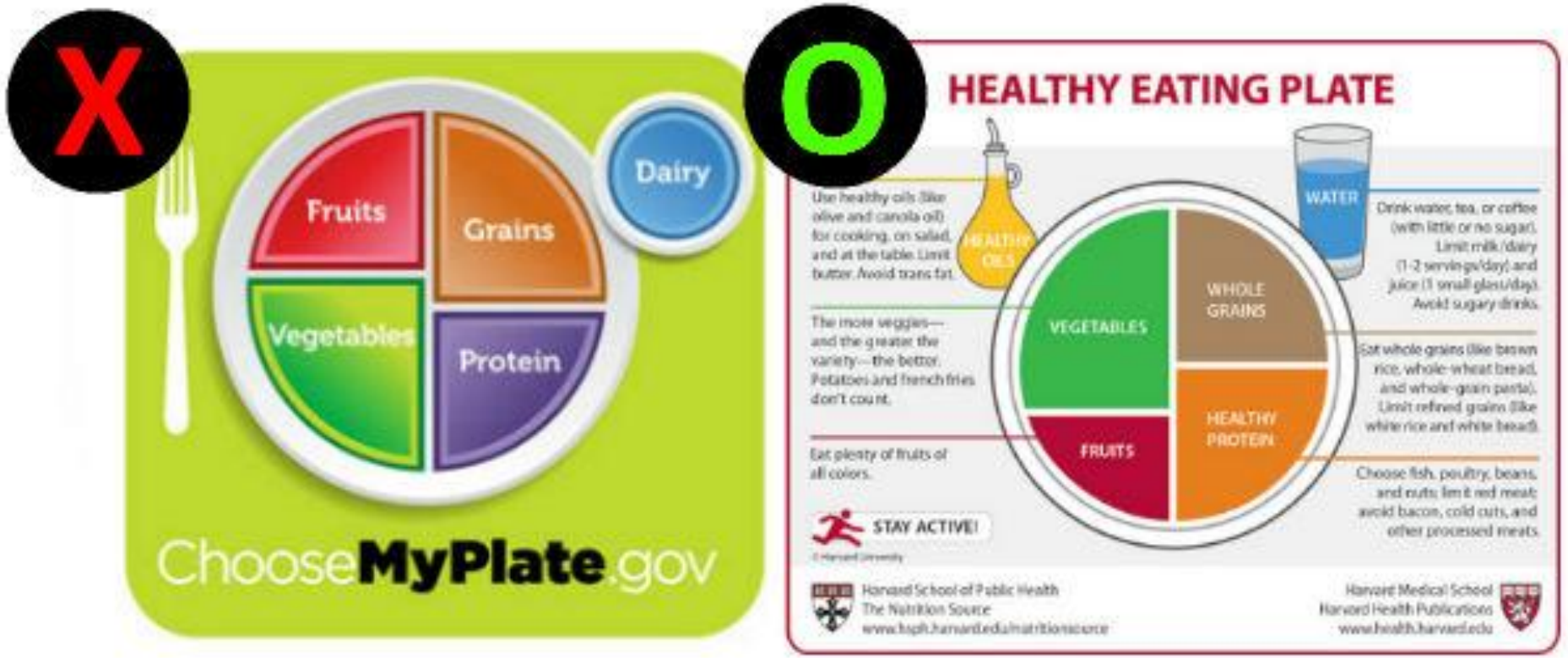
6 dice
= 1 ounce cheese

Palmful of nuts
= 1 ounce

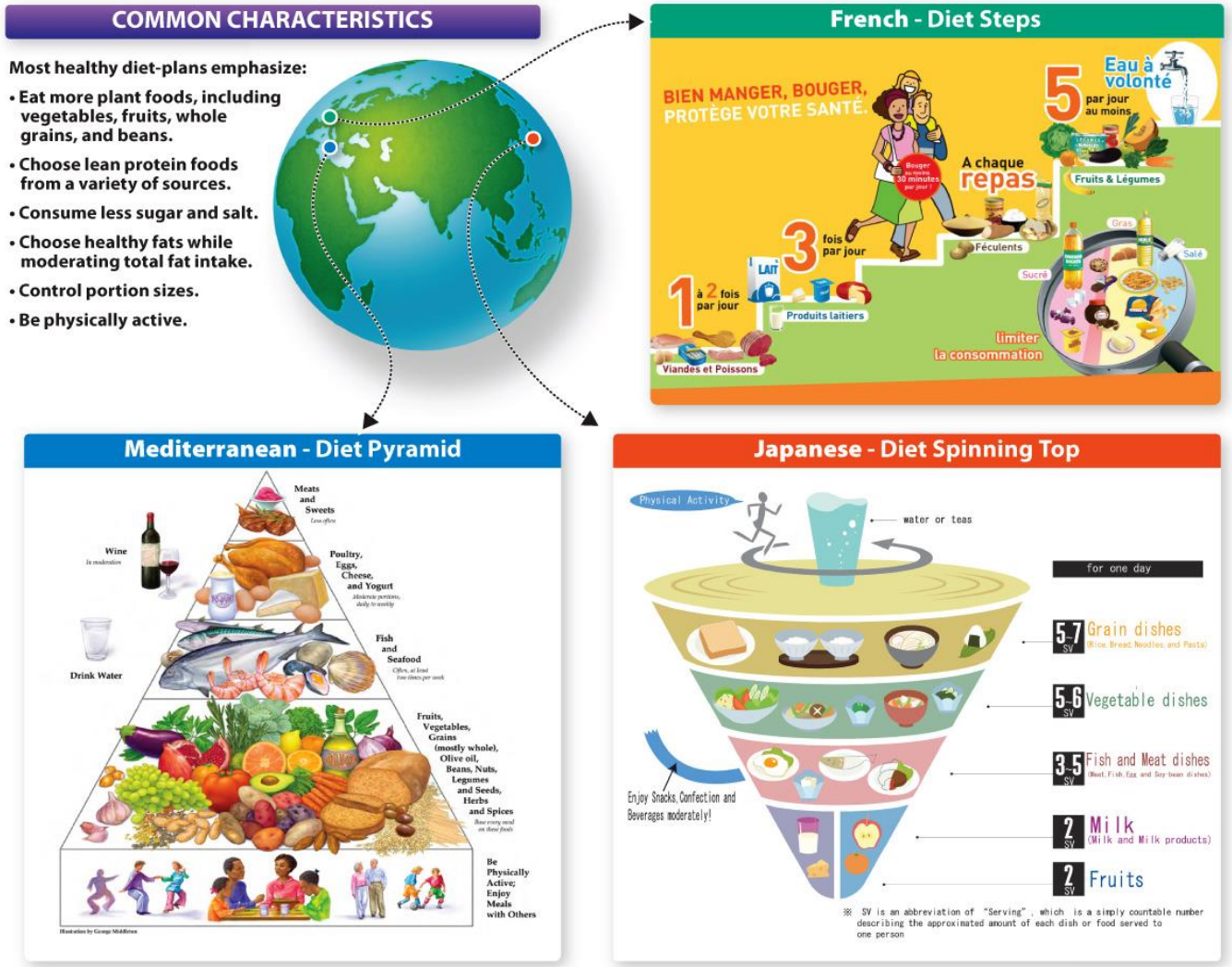
Thumb
= 1 tbsp. or ½ ounce

Infographic 2.7 part 2
Scientific American: Nutrition for a Changing World

Alternative “plates” have been proposed by other health organizations

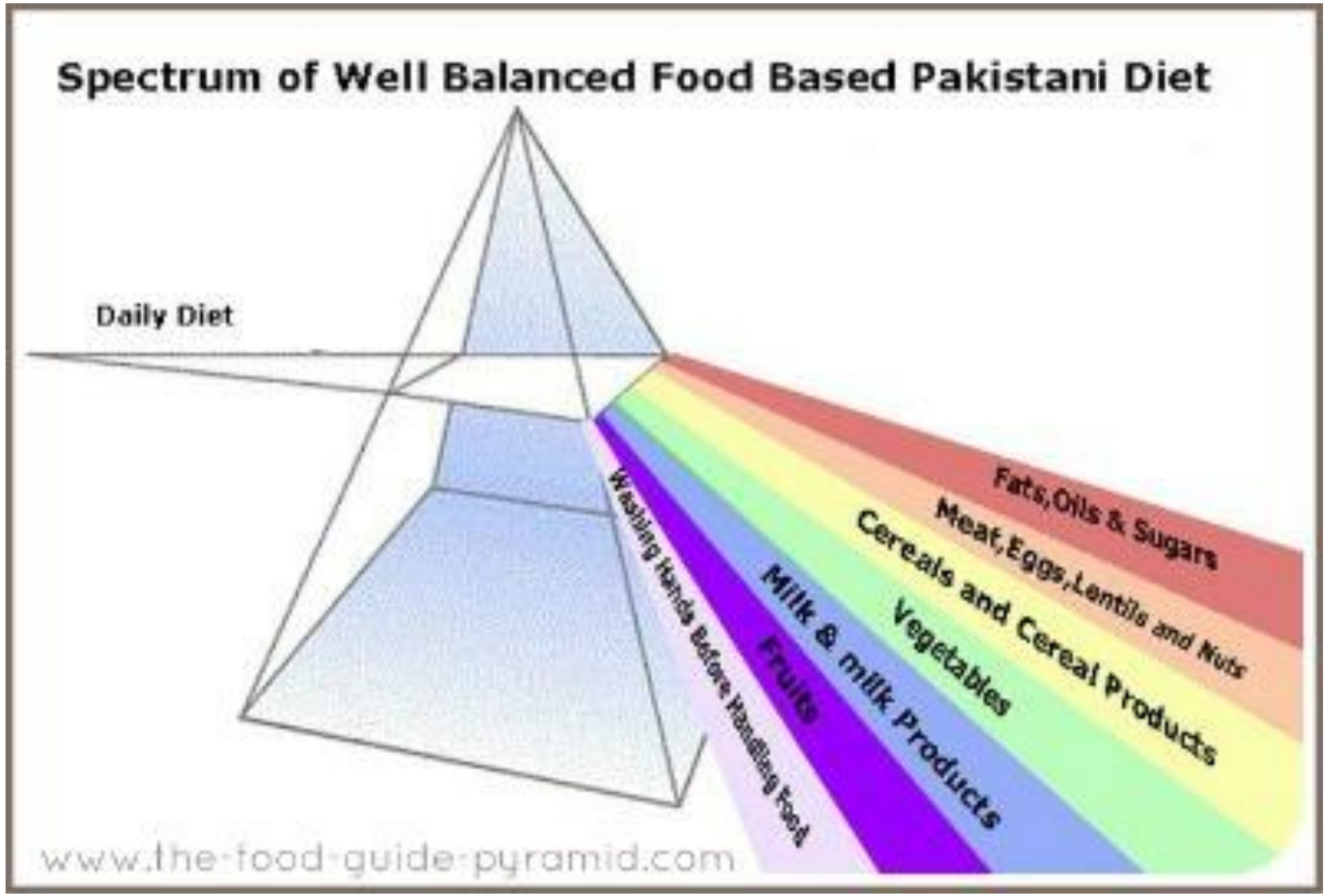


Food Guides from around the world have common recommendations

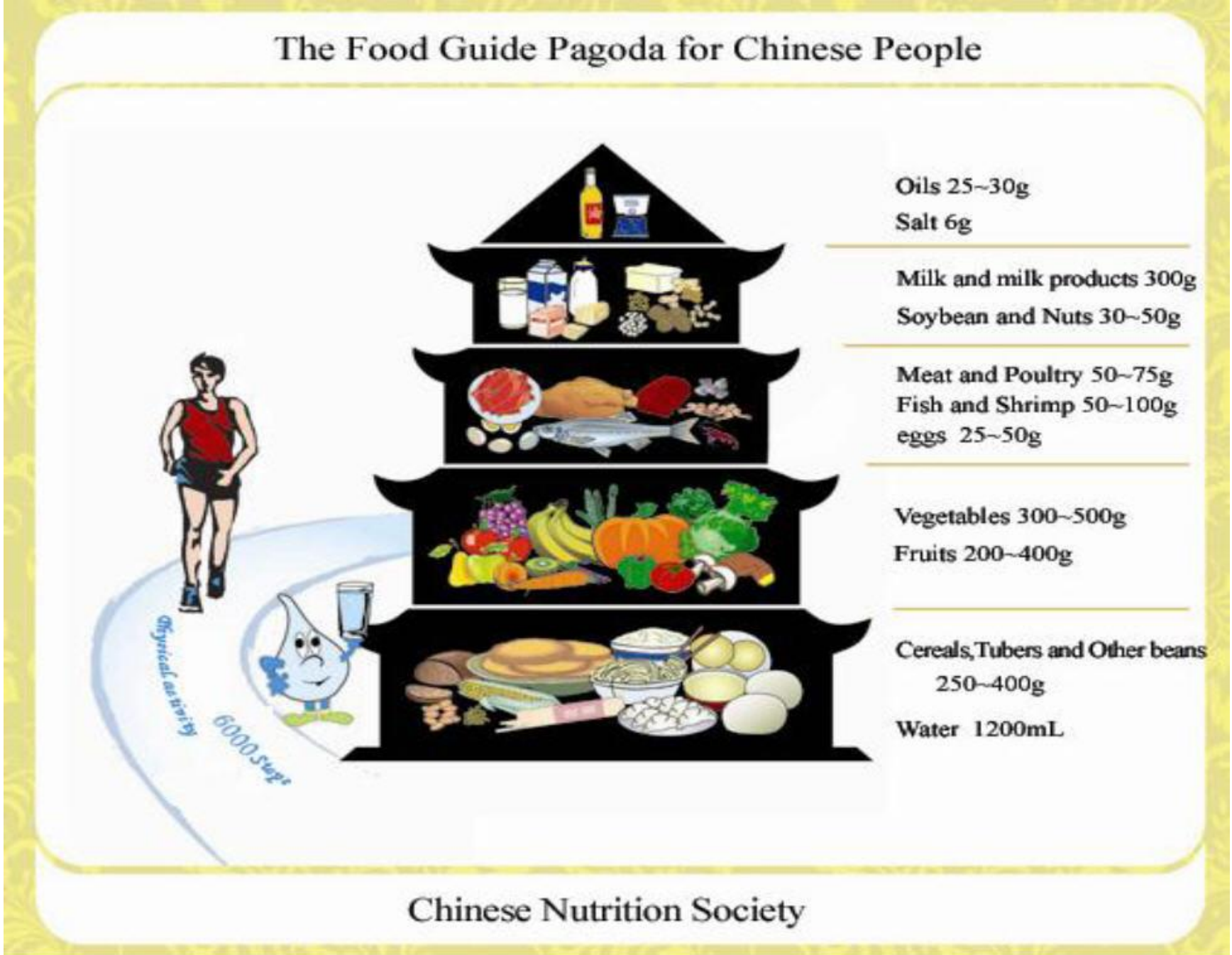


Infographic 2.9

Scientific American: Nutrition for a Changing World


Spectrum of Well Balanced Food Based Pakistani Diet
Daily Diet
Fats,Oils & Sugars
Meat,Eggs,Lentils and Nuts
Cereals and Cereal Products
Vegetables
Milk & milk Products
Fruits
Washing Hands Before Handling Food
www.the-food-guide-pyramid.com

The Philippines

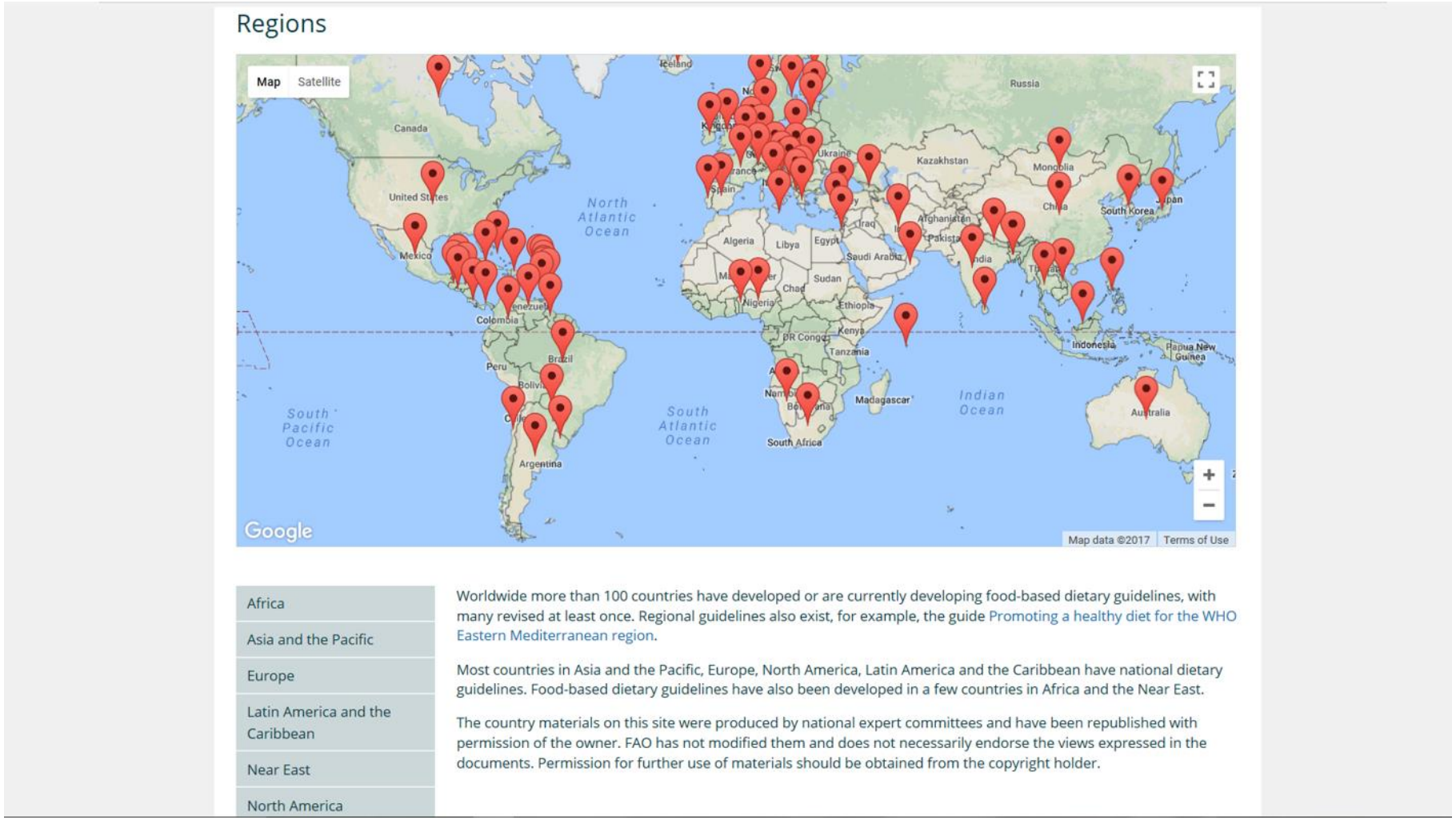


http://dg.en.cnsoc.org/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5018612/

Food-based Dietary Guidelines

Food and Agriculture Organization (FAO) of the United Nations

- http://www.fao.org/nutrition/education/food-dietary-guidelines/home/en/



International Dietary Guidelines have similar characteristics

- http://fnic.nal.usda.gov/dietary-guidance/myplatefood-pyramid-resources/ethniccultural-food-pyramids
- https://www.nal.usda.gov/fnic/dietary-guidelines-around-world
- http://www.mayoclinic.com/health/healthy-diet/NU00190
- *Most healthy-diet plans emphasize the following:*
  - *Eat more plant foods, including fruits, vegetables and whole grains.*
  - *Choose lean protein from a variety of sources.*
  - *Limit sweets and salt.*
  - *Control portion sizes.*
  - *Be physically active.*

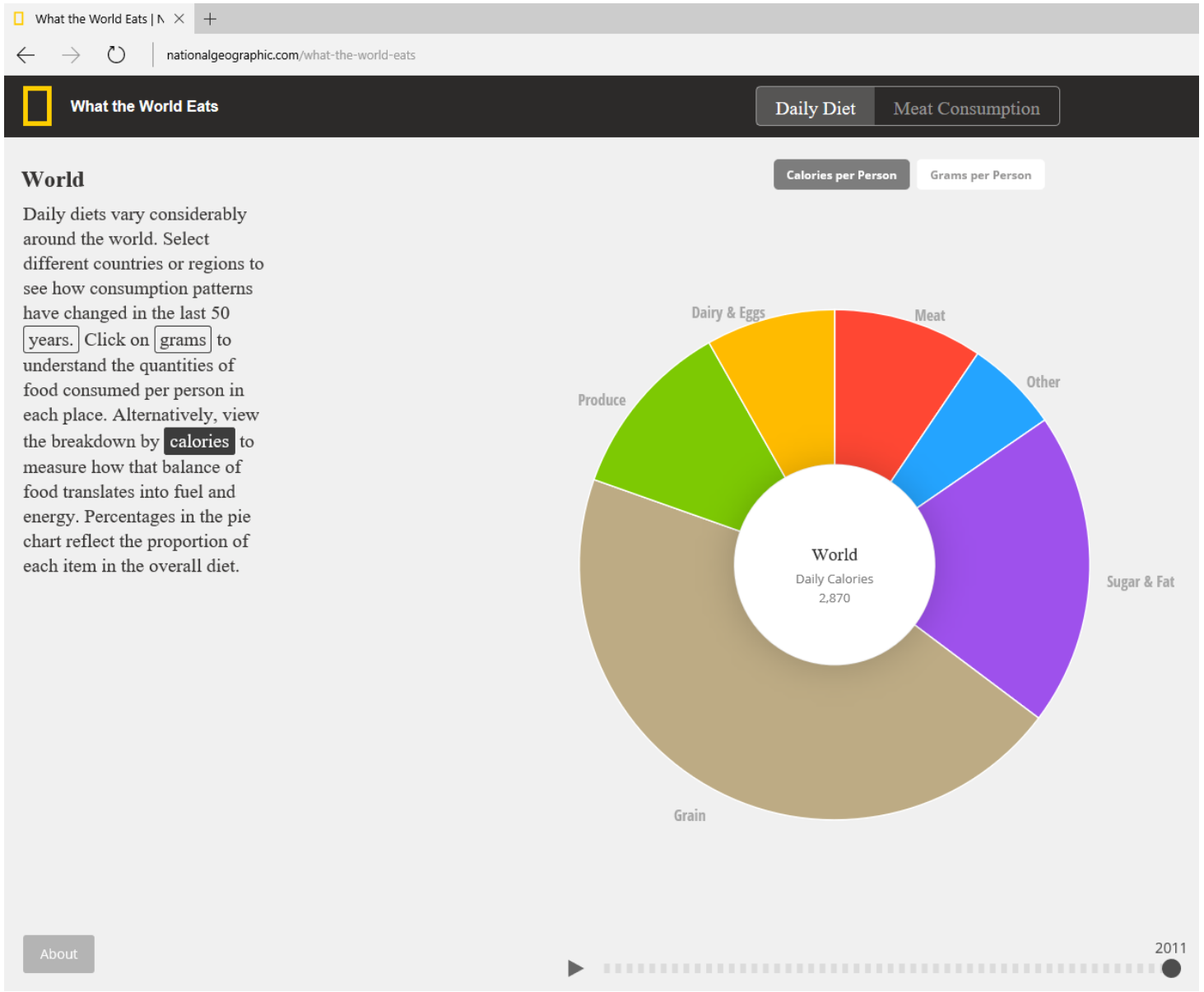
World Health Organization (WHO)

http://www.who.int/dietphysicalactivity/diet/en/index.html

- “Improving dietary habits is a societal, not just an individual problem. Therefore it demands a population-based, multisectorial, multi-disciplinary, and culturally relevant approach. These recommendations need to be considered when preparing national policies and dietary guidelines, taking into account the local situation.”
  - achieve energy balance and a healthy weight
  - limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats and towards the elimination of trans-fatty acids
  - increase consumption of fruits and vegetables, and legumes, whole grains and nuts
  - limit the intake of free sugars
  - limit salt (sodium) consumption from all sources and ensure that salt is iodized

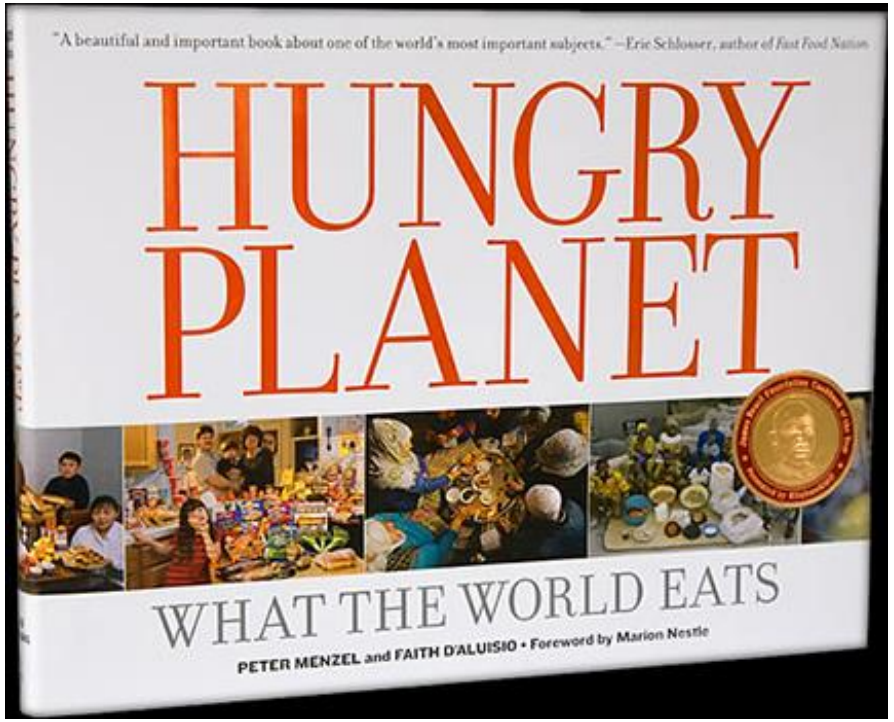
HOW THE WORLD EATS

http://www.nationalgeographic.com/what-the-world-eats/



“Hungry Planet” by Peter Menzel

- Video interviews by Jamie Pope with Peter Menzel with sampling of photographs from around the world on what people eat in a week….
- Links on YouTube:
  - https://youtu.be/I_XzZFkKQsc
  - https://youtu.be/v_xGT5LmByk



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NORTH CAROLINA

UNITED STATES

CALIFORNIA

Food and nutrition labeling guide consumers towards more healthful diets

- Helps consumers…
  - see how individual foods contribute to daily nutritional needs
- Incentive for food companies to improve the nutritional qualities of their products

Links – DGA also FDA guidelines on terms Healthy and Natural….

- http://www.cnn.com/2016/01/11/health/dietary-guidelines-mediterranean-vegetarian-diet/index.html
- https://www.nbcnews.com/nightly-news/video/fda-is-seeking-to-redefine-healthy-and-natural-foods-683942979848
- FDA guidance on term “natural”
- https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm456090.htm
- FDA Guidance on term “healthy” https://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/labelingnutrition/ucm520695.htm

1990 Nutrition Labeling and Education Act (NLEA)

- *Amendment to the 1938 Federal Food, Drug and Cosmetic Act*
- *FDA oversees food and nutrition labeling*
- *Made nutrition labeling :*
  - *<u>mandatory</u> for most processed foods*
  - *<u>voluntary</u> for fresh meat, poultry, fish, milk, eggs, and produce*

1990 Nutrition Labeling and Education Act (NLEA)

- *Established standardized "Nutrition Facts" panel*
- *Established standard portion sizes*
- *Provides details of nutrient content and ingredients*
- *Simplifies comparison of similar foods*

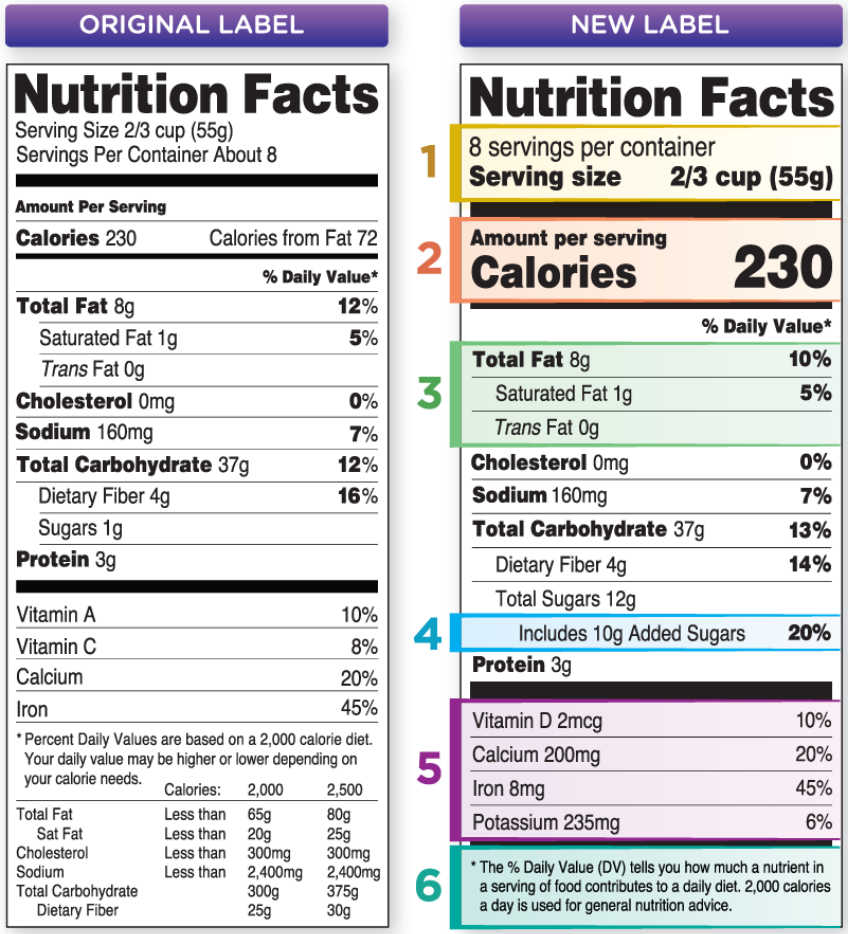
What’s on the Food Label?

- Product name
- Manufacturer’s name and address
- Uniform serving size
- Amount in the package
- Ingredients in descending order by weight
- Nutrient components
- Percent Daily Value

Daily Values are levels for nutrients developed specifically for nutrition labels

Food Component	%DV based on 2000 kcal
Fat	<65 g
Saturated fat	<20 g
Protein	50 g
Cholesterol	<300 mg
Carbohydrate	300 g
Fiber	25 g
Sodium	<2400 mg
Potassium	3500 mg

Food Labels Are Changing



1. SERVINGS: The number of "Servings Per Container" and the "Serving Size" are now in larger and/or bolder type. In many cases, servings sizes have been increased to better reflect what people actually consume today. Packaging size determines whether the nutrition information reflects a single serving and/or the whole package.

2. "CALORIES" is now larger and in bold type.

3. FATS: "Calories from Fat" has been removed because research show that the type of fat consumed is more important than the amount.

4. ADDED SUGARS: Sugars that have been added during food processing or packaging must be indicated on the label in grams and as a percent Daily Value (%DV).

5. NUTRIENTS: The list of nutrients that are required on the label have been changed. Vitamin D and potassium are now required, and Vitamins A and C are not. For the four nutrients listed here, the actual amount (in milligrams or micrograms) as well as the %DV must be listed. In addition, the daily values for nutrients have been updated to reflect current scientific evidence. The daily values are the reference amounts of nutrients that are used to calculate the %DV.

6. FOOTNOTE: The footnote at the bottom of the label has been changed to better explain the meaning of %DV.

The original date of July 2018 for the mandatory implementation of the new label has been delayed until January 1, 2020. Consequently, you will see both the old and new labels on products until that time.

Navigating the Nutrition Facts Panel

SERVING SIZE: The information that appears on the label will differ for certain size packages. As shown here, packages that contain two to three servings are required to use dual-column labeling that shows information for a single serving as well as for the whole package. For packages that contain more than one standard serving but less than two, the information on the label will be for the whole package only. Compare the quantity you usually eat to the size of the serving on the label.

Nutrition Facts

About 2 servings per container

Servings size **About 17 crisps (28g)**

	Per serving	Per package
Calories	**120**	**260**

CALORIES (kcal): This is the amount of the total energy in one standard serving of the food and/or the whole package, depending on the package size.

LIMIT THESE NUTRIENTS: The goal is to stay below 100% of these nutrients per day. Most Americans eat enough or too much of these nutrients. Excess consumption of these nutrients can increase the risk of several chronic diseases.

		% DV*		% DV*
Total Fat	3.5g	**4%**	7g	**9%**
Saturated Fat	0g	**2%**	1g	**5%**
Trans Fat	0g		0g	
Polyunsaturated Fat	2g		4g	
Monounsaturated Fat	1g		2g	
Cholesterol	0mg	**0%**	0mg	**0%**
Sodium	160mg	**7%**	340mg	**5%**

% DAILY VALUE: The %DVs are based on a 2,000-calorie (kcal) diet and indicate how much one serving contributes to the total daily diet (Daily Value) of these nutrients. The %DVs make it easy to compare similar products in order to choose healthier options. Just be certain that the serving sizes and calorie contents are similar.

Daily Value Quick Guide
- 5% or less is low
- 20% or more is high

GET ENOUGH OF THESE NUTRIENTS: Getting enough of these nutrients can improve overall health and may reduce the risk of several chronic diseases.

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Total Carb.	22g	**8%**	46g	**17%**
Dietary Fiber	1g	**5%**	3g	**11%**
Total Sugars	2g		5g	
Incl. Added Sugars	2g	**3%**	3g	**6%**
Protein	2g		4g	
Vitamin D	0mcg	0%	0mcg	0%
Calcium	6mg	0%	12mg	0%
Iron	0mg	0%	1mg	2%
Potassium	226mg	4%	479mg	10%

The %DV for protein is not required unless the product makes a protein claim, or the product is used for children or infants less than 4 years of age.

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

FOOTNOTE: This explains that the %DVs are to help consumers understand the nutrition information in the context of a total daily diet. This may be omitted if the label is too small.

Ingredients: Dried Potatoes, Corn Starch, Corn Oil Sugar, Sea Salt, Soy Lecithin, Dextrose, and Annatto Extracts.
CONTAINS SOY INGREDIENTS.

INGREDIENTS LIST: Ingredients are listed in descending order by weight. Major food allergens (such as soy) must be identified by name somewhere in the ingredients list.

Claims Made on Foods and Supplements

Pope/Nizielski, *Nutrition for a Changing World*, 2e © 2019 W. H. Freeman and Company

LABELING REGULATIONS FOR SPECIFIC TYPES OF CLAIMS

Nutrient Content Claims

- Most nutrient content claims apply only to nutrients with a DV.
- Exceptions are relative claims that compare content of other foods (i.e., "reduced," or "light").
- The word "healthy" may only be used for foods that provide healthy levels of fat, cholesterol, and sodium.

Health Claims

- Must be approved by the FDA.
- Must always use "may" or "might" to describe the ability of the product to reduce the risk of the disease.
- Not allowed on products containing high amounts of sodium, total or saturated fat, or cholesterol.
- Not allowed on foods with little natural nutritional value (the "jelly bean rule").

Structure/Function Claims

- Must not make any link (directly or implied) to a disease or health-related condition.
- They are supposed to be truthful and not misleading.
- Not reviewed or authorized by the FDA.
- When on a dietary supplement label:
  - the manufacturer must have evidence that the claim is truthful.
  - a disclaimer must state that the FDA has not evaluated the claim, and that the product is not intended to diagnose, treat, cure, or prevent any disease.

Infographic 2.11 part 2
Scientific American: Nutrition for a Changing World

FDA Approved Food Label Health Claims

http://www.fda.gov/food/labelingnutrition/labelclaims/healthclaimsmeetingsignificantscientificagreementssa/default.htm

• High in calcium, vitamin D	Osteoporosis
• High in fiber-containing grain products, fruits & vegetables	Cancer
• High in fruits & vegetables	Cancer
• High in fiber	Heart disease
• Low in fat	Cancer
• Low in saturated fat & cholesterol	Heart disease
• Low in sodium	High blood pressure
• High in folate (folic acid)	Neural tube defects
• High in soluble fiber	Heart disease
• Soy protein	Heart disease
• Carbohydrate sweeteners	Dental caries
• Plant sterols/stanols	Heart disease