



Plant Forward Dining – Why It's All the Rage & How You Can Do It Too

SPEAKERS

- 1. Susan G. Fisher, PhD, RD-** *Professor Emeritus*
- 2. Susan Levin, MS, RD, CSSD-** *Physician's Committee for Responsible Medicine*
- 3. Juliane Steenkamer, MS,RD-** *Feed More, Inc.*

More Grains, Fruits and Veggies???

Who says?



Susan Fisher

Professor Emerita, Meredith College

Meals on Wheels of Wake County

fishers@Meredith.edu

Why Plant-focused Meals?



Program Nutrition Standards

...comply with the most recent **Dietary Guidelines for Americans**, published by the Secretary and the Secretary of Agriculture, and

(ii) provide to each participating older individual—
(I) a minimum of 33 1/3 percent of the dietary reference intakes established by the **Food and Nutrition Board of the Institute of Medicine of the National Academy of Sciences...**

Nutrition Basics

- National Academies- Institute of Medicine
- Dietary Guidelines 2015-2020
- NHANES Healthy Index
- CDC Behavioral Risk Factor Surveillance Survey

Estimated Calorie Needs per Day for those ≤ 61y by Physical Activity Level

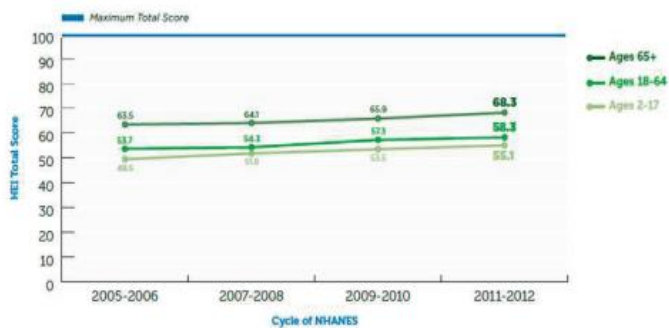
	SEDENTARY	MODERATELY ACTIVE	ACTIVE
MALE	2000	2200	2600*
FEMALE	1600	1800	2000

HEI-2010 Total and Component Scores¹ for Children, Adults, and Older Adults During 2007-2008

HEI-2010 Dietary Component (maximum score)	Children 2-17 years (n=2,839)	Adults 18-64 years (n=4,294)	Older Adults ≥ 65 years (n=1,396)
Mean Score (standard error)			
Total fruit (5)	3.75 (0.23)	2.63 (0.14)	4.33 (0.16)
Whole fruit (5)	4.61 (0.35)	3.52 (0.20)	5.00 (0.00)
Total vegetables (5)	2.17 (0.07)	3.41 (0.11)	4.23 (0.09)
Greens and beans (5)	0.73 (0.12)	2.80 (0.19)	3.14 (0.25)
Whole grains (10)	1.84 (0.12)	1.97 (0.13)	3.26 (0.15)
Dairy (10)	8.49 (0.17)	5.68 (0.18)	6.15 (0.13)
Total protein foods (5)	4.53 (0.10)	5.00 (0.00)	5.00 (0.00)
Seafood and plant proteins (5)	2.44 (0.12)	3.55 (0.19)	4.13 (0.29)
Fatty acids (10)	2.95 (0.14)	4.19 (0.15)	4.54 (0.23)
Refined grains (10)	5.11 (0.24)	6.35 (0.12)	6.68 (0.20)
Sodium (10)	4.95 (0.23)	4.20 (0.13)	4.13 (0.24)
Empty calories (20)	10.23 (0.27)	11.00 (0.41)	13.53 (0.26)
Total HEI score (100)	51.82 (1.14)	54.30 (1.16)	64.12 (1.03)

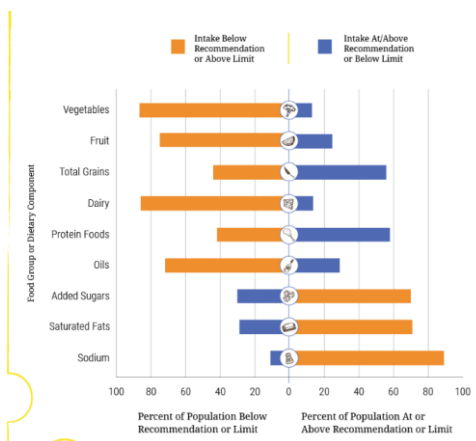
¹Calculated using the population ratio method.

Data source: National Health and Nutrition Examination Survey, 2007-2008.



Average Healthy Eating Index (HEI) scores of the U.S. population as a function of the National Health and Nutrition Examination Survey (NHANES) cycle, 2005-2006 to 2011-2012, by age group. SOURCES: Presented by E. Stoody, September 14, 2016. USDA, 2017.

Dietary Intakes Compared to Recommendations



<http://nationalacademies.org/hmd/reports/2017/nutrition-across-the-lifespan-for-a-healthy-aging-proceedings.aspx>

What are the recommendations?

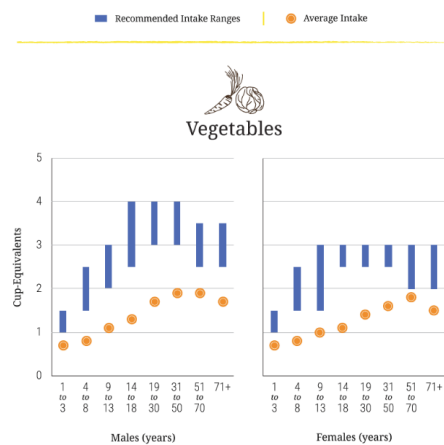
Adult women need at least **1 ½ cups of fruit** and **2 ½ cups of vegetables**

Adult men need at least **2 cups of fruit** and **3 ½ cups of vegetables**

Men Meeting Recommendations		Women Meeting Recommendations	
Fruits	Vegetables	Fruits	Vegetables
9.2%	7.6%	15.1%	10.9%

<https://www.cdc.gov/nutrition/downloads/fruits-vegetables/2018/2018-fruit-vegetable-report-508.pdf>

Average Daily Food Group Intakes by Age-Sex Groups, Compared to Ranges of Recommended Intake

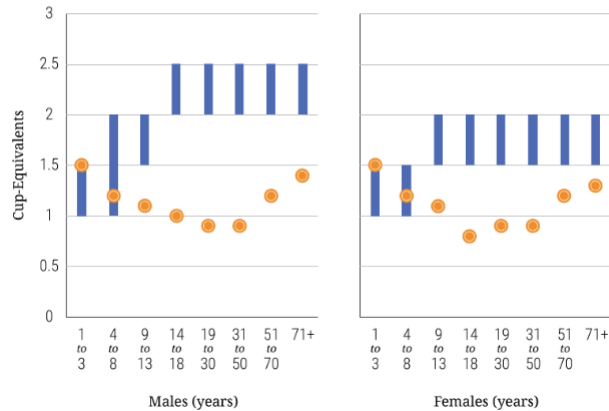


<https://health.gov/dietaryguidelines/2015/guidelines/chapter-2/a-closer-look-at-current-intakes-and-recommended-shifts/>

Average Daily Food Group Intakes by Age-Sex Groups, Compared to Ranges of Recommended Intake



Fruits



<https://health.gov/dietaryguidelines/2015/guidelines/chapter-2/a-closer-look-at-current-intakes-and-recommended-shifts/>

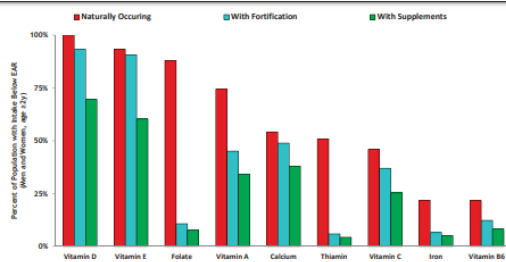


FIGURE 5-6 Percentage of the U.S. population aged 2 years and older with nutrient intakes below Estimated Average Requirements (EARs), taking into account either (1) only intake of foods with naturally occurring nutrients ("naturally occurring"); (2) intake of all foods, including fortified foods ("with fortification"); or (3) intake of all foods plus dietary supplements ("with supplements").

SOURCES: Presented by D. MacKay, September 14, 2016. Adapted with permission of the *Journal of Nutrition*, American Society for Nutrition, from Fulgoni et al., 2011.

Potassium

	portion	Cal/portion	Potassium/ portion (mg)
Potato, baked, flesh and skin	1 medium	163	941
White beans, canned	½ cup	149	595
Sweet potato, baked in skin	1 medium	103	542
Soybeans, green, cooked	½ cup	127	485
Lima beans, cooked	½ cup	108	478

<https://health.gov/dietaryguidelines/2015/guidelines/appendix-10/>

Potassium

	portion	Cal/portion	Potassium/ portion (mg)
Banana	1 medium	105	422
Tomato sauce, canned	½ cup	30	364
Kidney beans, cooked	½ cup	113	357
Navy beans,	½ cup	128	354

<https://health.gov/dietaryguidelines/2015/guidelines/appendix-10/>

Fiber

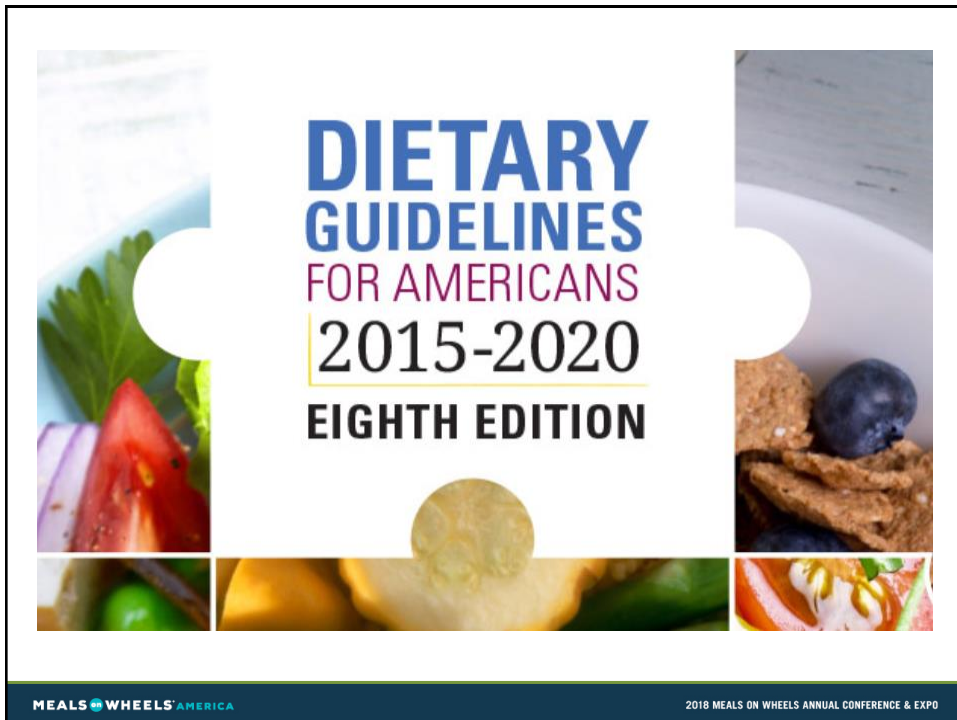
	portion	Cal/portion	Fiber / portion (g)
Navy beans, cooked	½ cup	127	9.6
Split peas, cooked	½ cup	114	8.1
Chickpeas, canned	½ cup	176	8.1
Baked beans, canned, plain	½ cup	119	5.2

<https://health.gov/dietaryguidelines/2015/guidelines/appendix-13/>

Fiber

	portion	Cal/portion	Fiber / portion (g)
Apple, with skin	1 medium	95	4.4
Refried beans, canned	½ cup	107	4.4
Collards, cooked	½ cup	32	3.8
Prunes, stewed	½ cup	133	3.8
Quinoa, cooked	½ cup	111	2.6

<https://health.gov/dietaryguidelines/2015/guidelines/appendix-13/>



The Guidelines

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.

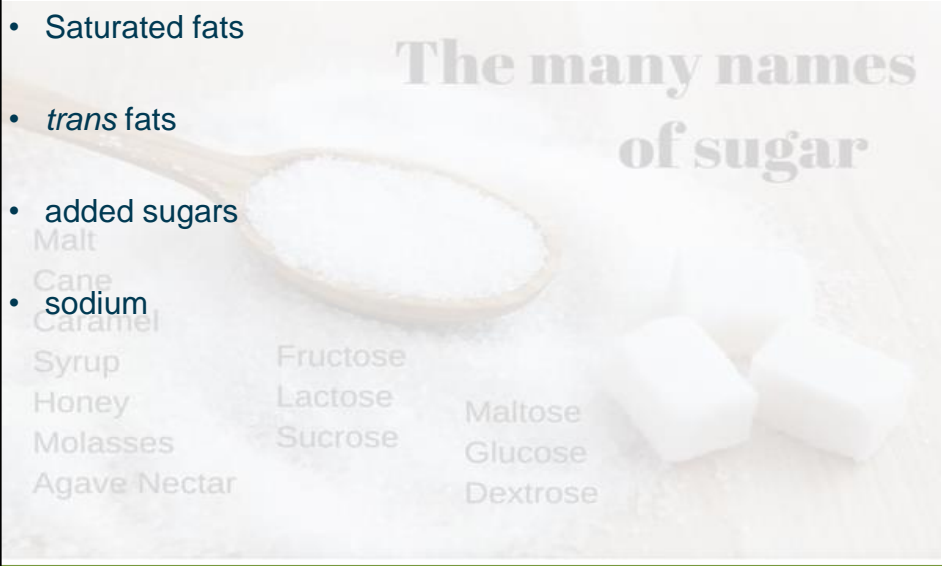
A healthy eating pattern includes:

- A variety of vegetables
- Fruits
- Grains
- Fat-free or low-fat dairy
- A variety of protein foods
 - including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

A healthy eating pattern limits:

- Saturated fats
- *trans* fats
- added sugars
- sodium

The many names of sugar



Malt
Cane
Caramel
Syrup
Honey
Molasses
Agave Nectar
Fructose
Lactose
Sucrose
Maltose
Glucose
Dextrose

TAKE A MOMENT

Describe these healthful meal patterns...

- Mediterranean Diet
- DASH
- MIND Diet
- Lacto-ovo-vegetarian



Plant focused Eating Patterns

- Mediterranean Diet
- DASH
- MIND Diet
- Lacto-ovo-vegetarian

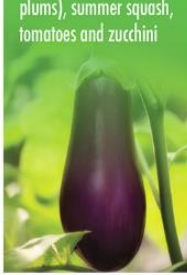


SPRING SUMMER FALL WINTER

artichokes, asparagus, carrots, chives, fava beans, green onions, leeks, lettuce, parsnips, peas, radishes, rhubarb and Swiss chard



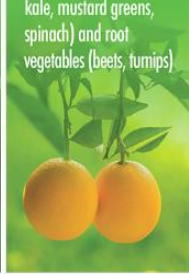
berries, corn, cucumbers, eggplant, figs, garlic, grapes, green beans, melons, peppers (sweet and hot), stone fruit (apricots, cherries, nectarines, peaches, plums), summer squash, tomatoes and zucchini



apples, brussels sprouts, dates, hard squash (acorn, butternut, spaghetti), pears, pumpkins and sweet potatoes



bok choy, broccoli, cauliflower, celery, citrus fruit (dementines, grapefruit, lemons, limes, oranges, tangerines), collard greens, endive, leafy greens (collards, kale, mustard greens, spinach) and root vegetables (beets, turnips)



<https://recipes.heart.org/Articles/1034/Infographic-Seasons-of-Eating>

References

Nutrition Across the Lifespan for Healthy Aging: Proceedings of a Workshop
<http://nap.edu/24735>

U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 – 2020 *Dietary Guidelines for Americans*. 8th Edition. December 2015. Available at <https://health.gov/dietaryguidelines/2015/guidelines/>.

Nutrient Sources:

U.S Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. 2014. USDA National Nutrient Database for Standard Reference, Release 27. Available at: <http://www.ars.usda.gov/nutrientdata>.

NHANES Healthy Eating Index (HEI)

<https://www.cnpp.usda.gov/healthyeatingindex>

References

CDC Science-in-Brief

Fruit and Vegetable Consumption: <https://www.cdc.gov/obesity/downloads/adult-fruit-vegetable-consumption-2015-508.pdf>fruit and Vegetable Intake 2015

CDC 2018 State Indicator Report on Fruit and Vegetable Consumption

<https://www.cdc.gov/nutrition/downloads/fruits-vegetables/2018/2018-fruit-vegetable-report-508.pdf>

Dietary Guidelines 2015-2020 Resources:

Healthy Vegetarian Eating Pattern:

<https://health.gov/dietaryguidelines/2015/guidelines/appendix-5/>

Healthy Mediterranean-Style Eating Pattern:

<https://health.gov/dietaryguidelines/2015/guidelines/appendix-4/>