Art J Hunghy



Know your Food LABELS!



TABLE FOR ONE:



Better dining choices for you and your patients



Susan Lo, MD Joan Peng, MD Eliza

NO RELEVANT FINANCIAL DISCLOSURES OR CONFLICTS OF INTEREST TO REPORT

Table for One...



- SNACKING WITH A CONSCIENCE
 - Experiential learning (fat, carbs, calories, sodium)
- GUESS THE SODIUM CONTENT
 - Raffle Prize
- FOOD LABEL EXERCISE
 - Match the labels, count the carbs, dose the insulin
- WHAT'S IN A DIET ?
 - Low carb, Paleo, Mediterranean, plant-based, gluten free...
- FOOD DESERTS AND PUBLIC HEALTH
 - Food deserts, swamps, and the obesity epidemic



Images courtesy of Pixabay.com

CHANGES IN THE NEW 2020-2021 FOOD LABEL



SERVINGS → larger, **bold type**

 $NEW \rightarrow$ added sugar

CHANGE \rightarrow in required listing of food nutrients

Nutrition	
8 servings per contair Serving size 2/	
Amount per serving Calories	230
	% Daily Value
Total Fat 8g	109
Saturated Fat 1g	59
Trans Fat 0g	
Cholesterol Omg	09
Sodium 160mg	79
Total Carbohydrate 37	⁷ g 13 9
Dietary Fiber 4g	149
Total Sugars 12g	
Includes 10g Added	Sugars 20%

Protein 3a

Vitamin D 2mcg

Calcium 260mg

Potassium 235mg

Iron 8mg

← Actual amounts

daily values

← Updated

* 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.

10%

20%

45%

6%

- ← Serving size updated
- ← Calories: larger type

← NEW footnote

Nutrition Facts 8 servings per container Serving size 2/3 cup (55g) Amount per serving 230 **Calories** % Daily Value* Total Fat 8q 10% 5% Saturated Fat 1g Trans Fat 0g **Cholesterol** Oma 0% Sodium 160ma 7% Total Carbohydrate 37g 13% Dietary Fiber 4a 14% Total Sugars 12g Includes 10g Added Sugars 20% Protein 3g 10% Vitamin D 2mcg 20% Calcium 260mg 45% Iron 8ma

* 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

Potassium 235mg

When carbohydrate counting needs to get precise... check for dietary fiber

Net Carbs = Total Carbs – Fiber

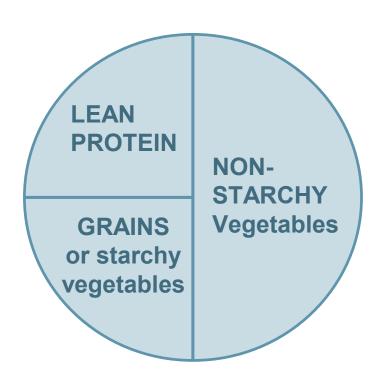
Locate total carbs/serving (37g)

Look below for dietary FIBER (4g)

Subtract it: 1 serving = NET 33g carbs

CARBOHYDRATE & DIETARY FIBER

My Plate recommendations for Diabetes



> Use a 9-inch plate

> HALF: non-starchy veg

> 1/4: lean protein

> 1/4: grain OR starchy veg

> Milk & fruit on the side

Resources: The US Department of Agriculture (USDA, MyPlate) and The American Diabetes Association

MATCH THE FOOD TO ITS LABEL & CALCULATE TOTAL CALORIES

HAMBURGER



SIDE SALAD, no dressing



Ranch dressing adds 200 calories (17g fat, 11g carbohydrates)

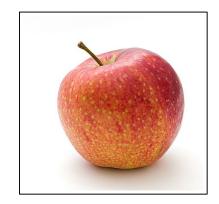
Iced coffee latte



SMALL FRIES



LARGE APPLE



coffee latte/whip cream



Images courtesy of Pixabay.com

You have diabetes, but couldn't resist the hamburger and fries. Your friend got you an iced coffee latte. How much insulin do you need to cover the meal?

your insulin to carb ratio is 1 U / 15 g (e.g. type 1 DM)

your insulin to carb ratio is 1 U / 5 g (e.g. type 2 DM)

You have type 2 diabetes and a BMI of 30 kg/m.²
The nutritionist has placed you on an 1800 calorie diet with no more than 30% carbohydrates

- What is your total daily carbohydrate allowance?
- What is your carb allowance for lunch?
- You decline the beverage but what should you order off the menu for lunch?

What's in a Diet?

Susan Peng, MD

Low-Carb Diet

- Low carbohydrate, high fat, moderate protein
- Includes Atkins and Keto diets
- Atkins: carb intake starts low at 20 gm daily with gradual increase to 100 gm daily when reach goal weight
- Keto diet: carb intake remains low at 20-50 gm daily to maintain ketosis, ratio 1 gm carb:1 gm protein:3-4 gm fat
- Side effects: constipation, dehydration, kidney stones, gout, nutrient deficiencies

Stafstrom CE and Rho JM. Front Pharmacol. 2012; 3: 59. https://www.healthline.com/nutrition/atkins-vs-keto

Paleo Diet

- Mimics human diet during Paleolithic era of hunter-gatherers, prior to farming
- Low in carbohydrate, moderate fat, moderate to high in protein
- No dairy, cereal grains, legumes, potatoes, processed foods, refined sugar, salt, alcohol, coffee
- Whole30 is a more restrictive variation for 30 days

https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/paleo-diet/art-20111182

Mediterranean Diet

- Greece, Italy (spans Portugal/Spain to Turkey)
- Moderate carbs, moderate fat, lower protein
- Plant-based, whole foods
- Includes seafood, dairy, and red wine
- Low on red meat, eggs, and refined sugars
- Associated with decrease in CV disease

Martinez-Gonzalez MA, Gea A, Ruiz-Canela M. Circ Res. 2019; 124(5): 779-798.

Whole Foods Plant-Based Diet

- High carbohydrate, low fat, and lower protein
- Emphasis on complex carbohydrate/high fiber and vegetable protein diet
- Dietary fiber is exclusively found in plant-based foods
- No meat, dairy, eggs, oils, processed foods (protein isolates, refined grains, refined sugar), soda/fruit juice

T. Colin Campbell Center for Nutrition Studies (nutritionstudies.org)

Campbell TC and Campbell TM (2016). The China Study. Dallas, TX: BenBella Books, Inc.

Whole-Food Plant-Based Diet

- Side effect: vitamin B12 deficiency as found mostly in meat, fish, milk, and eggs
- Can check B12 and methylmalonic acid (MMA) levels in strict vegans

T. Colin Campbell Center for Nutrition Studies (nutritionstudies.org)

Further information can also be found in documentary "Forks Over Knives" (Swank Motion Pictures, Inc.)

Gluten-Free Diet

- Excludes protein gluten
- Celiac disease
 - Autoimmune disease reaction to gluten → inflammation and damage to small intestine → malabsorption
- Gluten intolerance
 - GI symptoms (bloating, abdominal pain) with normal small intestine on biopsy
 - Differentiate from allergy

Intermittent Fasting

- Strong evidence in animal models
 - Activation of cellular pathways that improve mitochondrial health,
 DNA repair, and autophagy
 - Show benefit in diabetes, CV disease, cancer, neurological disorders
 - Increased lifespan
 - Humans?

Mattson MP, Longo VD, Harvie M. Ageing Res Rev. 2017; 39: 46-58.

Patterson RE, Laughlin GA, LaCroix AZ, et al. J Acad Nutr Diet. 2015; 115(8): 1203-1212

Intermittent Fasting

- Whole-day fasting (5:2 diet), alternate-day fasting, time-restricted feeding
- vs continuous caloric restriction:
 - No significant difference in weight loss or body composition
 - Higher dropout rate
- Consider the patient (avoid in diabetes, eating disorder, medications with food, adolescents/pregnant/breastfeeding)

https://www.hsph.harvard.edu/nutritionsource/healthy-weight/diet-reviews/intermittent-fasting/

The Michael Pollan Diet

"Eat food.

Not too much.

Mostly plants."

In Defense of Food: An Eater's Manifesto (2008)

London: Penguin Books

Current Events

- Plant-based meat substitutes, most recently:
 - Beyond (pea protein)
 - Impossible (GMO soy)
- Generally less calories and fat, significantly more sodium
- Ultra-processed with ~20 ingredients
- ~10% of global greenhouse emissions are from beef/dairy cattle
- 1 lb almonds : 370 gallons water; 1 lb beef : 1700 gallons water

https://www.cnbc.com/2019/09/02/beyond-meat-uses-climate-change-to-market-fake-meat-substitutes-scientists-are-cautious.html https://www.huffpost.com/entry/avocados-california-drought_n_7127666

Current Events

PACP

Annals of Internal Medicine®

LATEST

ISSUES

CHANNELS

CME/MO

IN THE CLINIC

JOURNAL CLU

WEB EXCLUSIVES

AUTHOR INFO

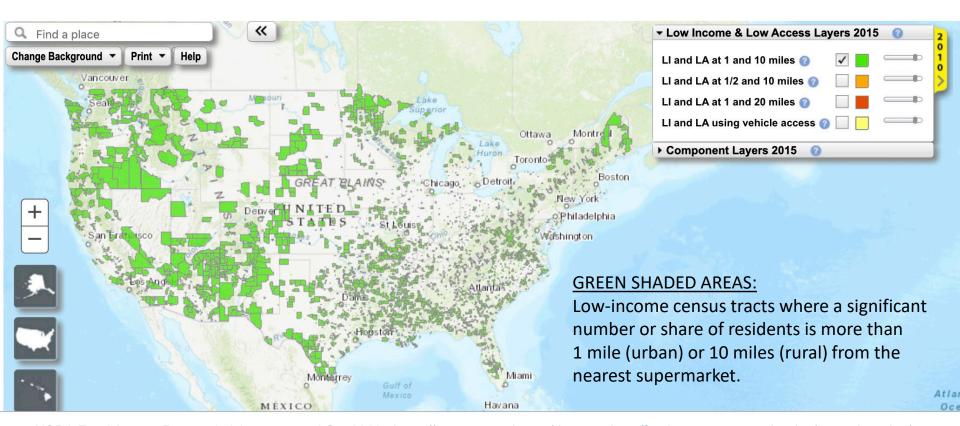
CLINICAL GUIDELINES | 1 OCTOBER 2019

Unprocessed Red Meat and Processed Meat Consumption: Dietary Guideline Recommendations From the Nutritional Recommendations (NutriRECS) Consortium

Bradley C. Johnston, PhD; Dena Zeraatkar, MSc; Mi Ah Han, PhD; Robin W.M. Vernooij, PhD; Claudia Valli, MSc; Regina El Dib, PhD; Catherine Marshall; Patrick J. Stover, PhD; Susan Fairweather-Taitt, PhD; Grzegorz Wójcik, PhD; Faiz Bhatia, PEng; Russell de Souza, ScD; Carlos Brotons, MD, PhD; Joerg J. Meerpohl, MD; Chirag J. Patel, PhD; Benjamin Djulbegovic, MD, PhD; Pablo Alonso-Coello, MD, PhD; Malqorzata M. Bala, MD, PhD; Gordon H. Guyatt, MD

Johnston BC, et al. Ann Intern Med. October 2019 [Epub ahead of print]

USDA Food Access Map





- Food Desert neighborhoods that lack healthy food sources (USDA)
- First Lady Michelle Obama's *Let's Move* initiative
- Food Swamp places where unhealthy foods are more readily available than healthy foods Maryland Food System Map, Johns Hopkins
- 2017 Study "Food Swamps Predict Obesity Rates Better Than Food Deserts in the United States."

Rudd Center for Food Policy and Obesity, University of Connecticut Sanford School of Public Policy, Duke University

Cooksey-Stowers, et al. Int J Environ Res Public Health 2017; 14(11)

Innovations to improve nutrition

EXAMPLE: Nutrition Prescription Program

- A nutrition prescription program for fruits & vegetables was implemented in a pediatric medical facility in Flint, MI, in partnership with local farmers' markets
- Directed by Dr. Mona Hanna-Attisha through the Michigan State University and Hurley Children's Hospital Pediatric Public Health Initiative
- This local program subsequently inspired a national nutrition prescription program in the US Farm Bill

Other Strategies to change dietary habits



Use of artificial intelligence to examine food consumption among low income residents to power the development of solutions



Policy – regulations or taxes on certain foods

Good Food is Good Business. Report from Institute for the Future, 2018. http://www.iftf.org/fileadmin/user_upload/images/ourwork/Food_Futures_ Lab/IFTF Good Food is Good Business.pdf

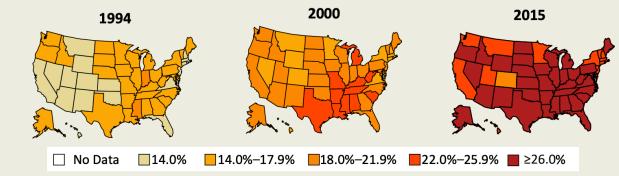
Incorporate nutrition counseling in the patient visit

- Start the conversation Questionnaires
- Structure the encounter 5A's (assess, advise, agree, assist, arrange)
- Focus on small steps Use available resources many on-line
- Don't do it all at once Focus on long-term behavioral change
- Collaborate Use assistants, nurses, dieticians, etc.

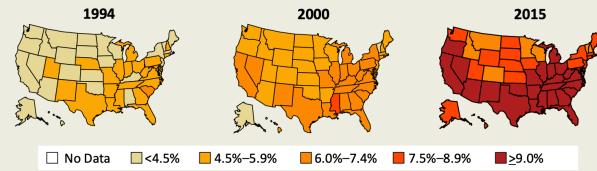
"Nutrition Counseling in Clinical Practice" (Kahan and Manson, JAMA 2017)

Prevalence of Obesity and Diagnosed Diabetes in U.S. Adults 1994, 2000, 2015

Obesity (BMI ≥30 kg/m²)



Diabetes

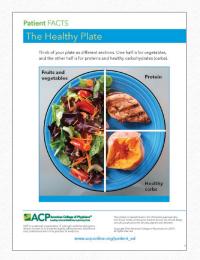












www.acponline.org/system/files/documents/practiceresources/patient-resources/healthy-plate-facts.pdf



www.nhlbi.nih.gov/health/educational/healthdisp/pdf/tipsheets/Tips-for-Eating-Out.pdf



https://www.cdc.gov/diabetes/ndep/pdfs/NDEP_Buffet_Table_Tips_General.pdf

Accessed 10/12/19

RESOURCES FOR YOUR PATIENTS









PRE-MED

MED STUDENT

RESIDENT

PHYSICIAN

RETIRED

Current membership includes women (and men) from all levels of training and career, all fields of medicine, and both physicians and non-physicians

INITIATIVES

Gender Equity, Advancement Women's Health, Public Health



LITERARY AMWA STUDIO AMWA

FILMWomen
in WWI







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Where We Stand

ACP advocates on behalf on internists and their patients on a number of timely issues. Learn about where ACP stands on the following areas:

Medicare and the Quality Payment Program

Medicaid Reform

Public Health

Physician Workforce and Team Based Ca

Women in Medicine

Health Information Technology

Medical Liability Reform

- Gender Bias & Advancing Equity
- **Leadership & Mentoring**
- Addressing Sexual Harassment
- **Comprehensive Toolkit**

In this Section

Where We Stand

Achieving Gender Equity in Physician Compensation + Career Advancement

It is important to recognize the progress that has been made to ensure gender diversity in the physician workforce. However, despite this progress, gender inequities have contributed to the disproportionately low number of women achieving academic advancement and serving in leadership positions.

Find full Position Paper published at Annals.org on 17 April 2018.

(F) = Female, (M) = Male

Pipeline Stats

- 34% of active physicians (F)
- . 46% of physicians-in-training (F)



Leadership in Medicine

- 38% of medical school faculty (F)
- . 21% of full professors of medicine (F)
- . 15% of Dept. Chairs (F)
- . 16% of Deans of medical schools (F)

Compensation Inequity

- · Females are paid 16% less than their male counterparts in primary care (\$197k vs. \$229k)
- . Females are paid 37% less than males in subspecialties of medicine (\$251k vs. \$345k)
- 57.1% (F) versus 33.7% (M) academic physicians are paid less than \$200,000.

Me Too movement for Physicians (F)

- 51.3% of physicians (F) reported discrimination vs. 31.2% (M)
- 30.4% of physicians (E) have filed sexual harassment charge vs. 4.2% (M)
- 59% of females who filed harrassment charges perceived negative effect on their professional self-confidence, 47% reported that it negatively affected their career advancement
- 69.6% of physicians (F) report gender bias vs. 21.8% (M)
- On 3:1 scale, females more likely to experience disrespectful or punitive actions than males
- · Females more likely to be described as judgemental, rude or unfriendly by patients in online reviews

Parenthood

- Only 28.9% of physician contracts.
- provide maternity coverage · \$10k lost income while out for
- maternity leave







ACKNOWLEDGEMENTS

- American College of Physicians (ACP) Northern California Chapter
- American Medical Women's Association (AMWA)

AMWA Preventive Medicine Task Force
AMWA Graduate Medical Education Committee

Internal Medicine Residency Program at Kaiser Permanente Oakland