

OU-Tulsa Culinary Medicine

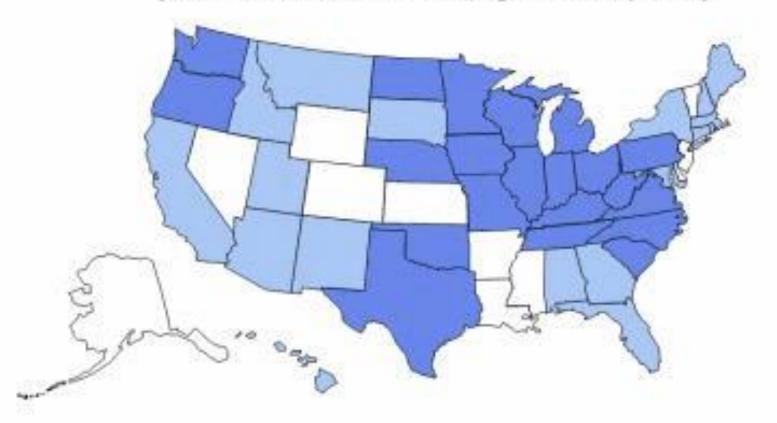
Lori Whelan, MD

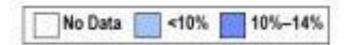
GKFF Chair #2 in Emergency Medicine Vice Chair of Education Associate Professor and Director of Ultrasound **OU-TU School of Community Medicine**

I Have No Disclosures

Obesity Trends* Among U.S. Adults BRFSS, 1989

(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)

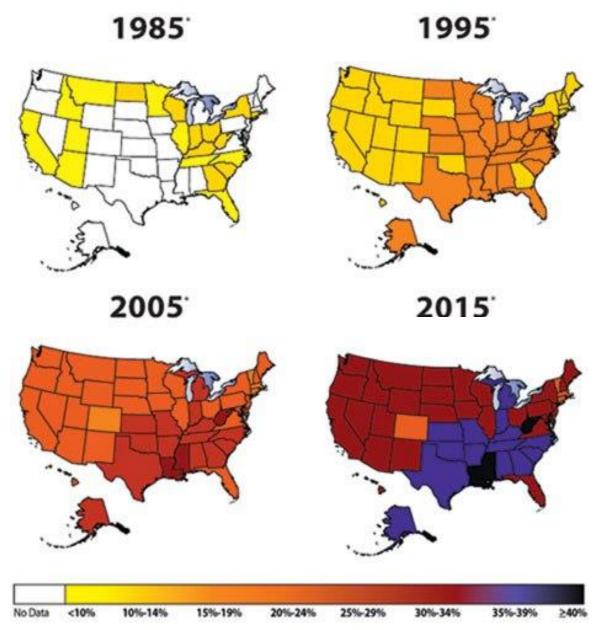






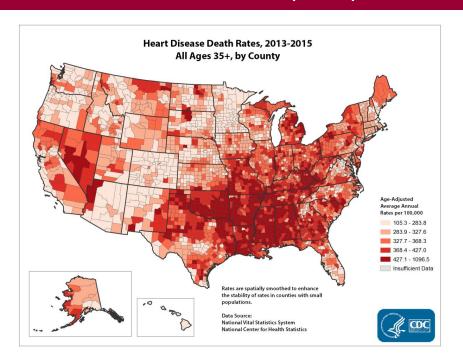
Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends Among US Adults



HEART DISEASE

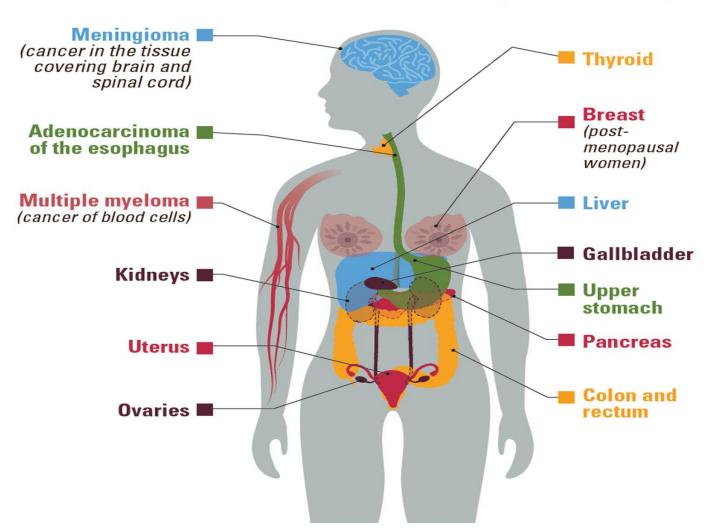
610,000 deaths per year



Leading Cause of Death for both Men and Women

40% of all Cancers are obesity related

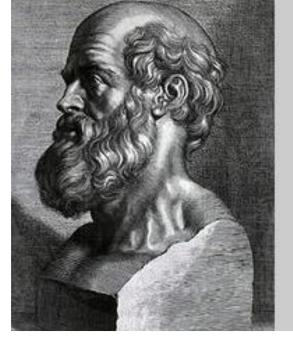
13 cancers are associated with overweight and obesity



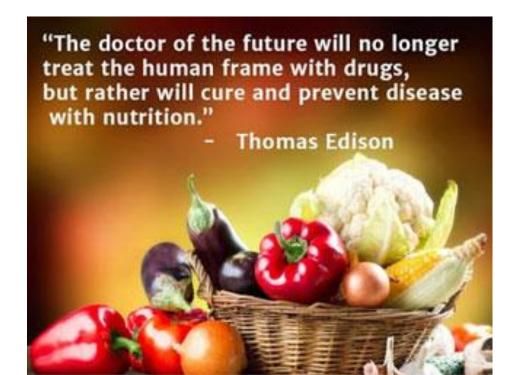


We need a new approach!





"Let food be thy medicine and medicine be thy food" - Hippocrates

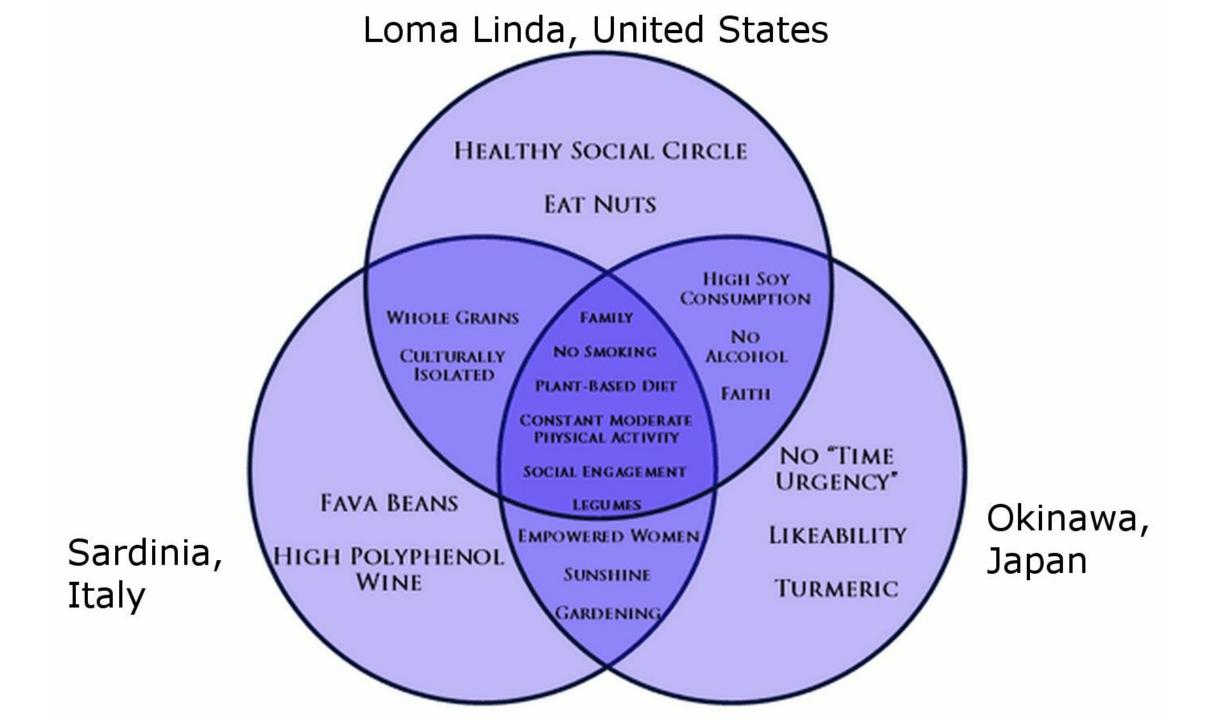














Put less meat & more plants on your plate.



Invest time with family & add up to 6 years to your life.

WINE @ FIVE

Enjoy a glass of wine with

good friends each day.



80% RULE

Eat mindfully & stop when 80% full.



MOVE NATURALLY

Find ways to move more! You'll burn calories without thinking about it.





Wake up with purpose each day to add up to 7 years to your life.

Surround yourself with people who support positive behaviors.



Reverse disease by finding a stress relieving strategy that works for you.

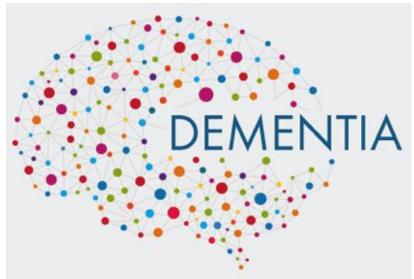


Live longer by applying these principles from the people who have lived longest!



Belong to a faithbased community, & attend services 4 times a month to add 4-14 years to your lifespan.



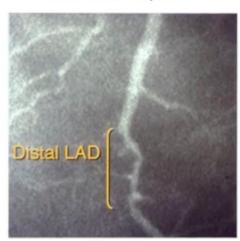


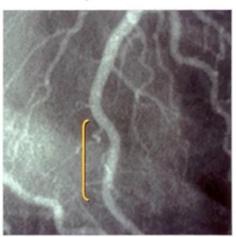


Reversal of Coronary Disease

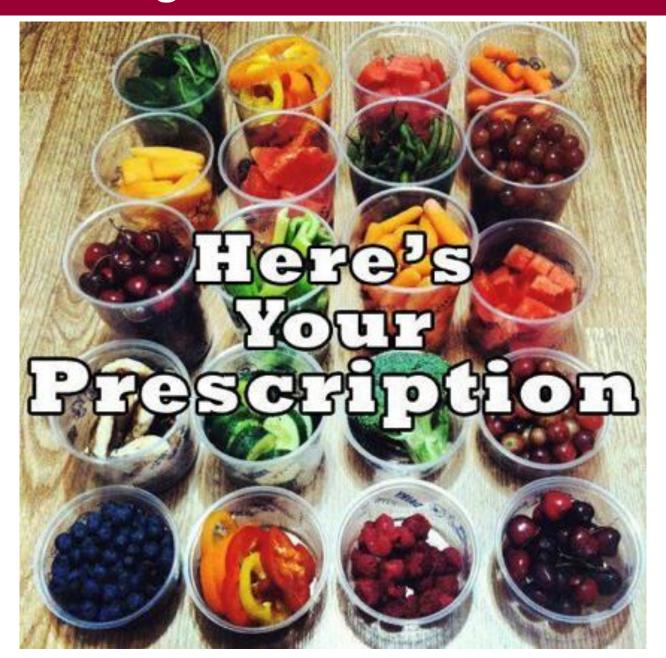
November 27, 1996

July 22, 1999





Using Food... AS MEDICINE



Hypertension



KNOW YOUR BLOOD PRESSURE

-AND WHAT TO DO ABOUT IT

By AMERICAN HEART ASSOCIATION NEWS



The newest guidelines for hypertension:

NORMAL BLOOD PRESSURE

*Recommendations: Healthy lifestyle choices and yearly checks.

ELEVATED BLOOD PRESSURE

*Recommendations: Healthy lifestyle changes, reassessed in 3-6 months.

HIGH BLOOD PRESSURE / STAGE 1

*Recommendations: 10-year heart disease and stroke risk assessment. If less than 10% risk, lifestyle changes, reassessed in 3-6 months. If higher, lifestyle changes and medication with monthly follow-ups until BP controlled.

HIGH BLOOD PRESSURE / STAGE 2

*Recommendations: Lifestyle changes and 2 different classes of medicine, with monthly follow-ups until BP is controlled.

*Individual recommendations need to come from your doctor. Source: American Heart Association's journal Hypertension Published Nov. 13, 2017

We eat <u>WAY</u> to much salt!



To Lower Blood pressure



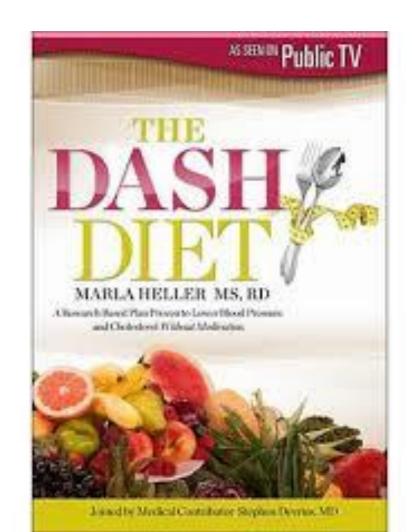
Where does most of our salt come from?







<u>Dietary Approaches to Stop HTN DASH</u> DIET



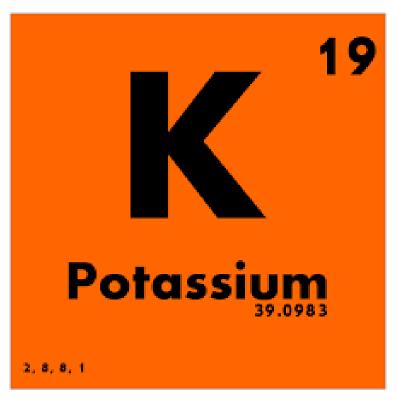


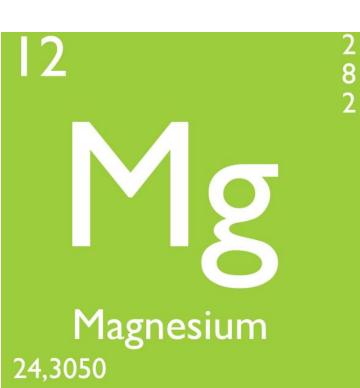


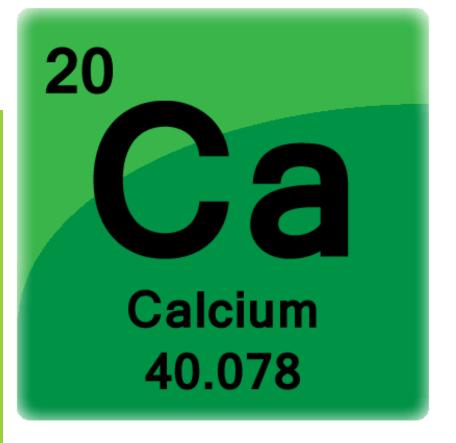
- Fruits and vegetables
- Whole grains
- Lean protein
- Low-fat dairy
- Nuts, seeds and legumes

- Fats and oil
- Sweets and added sugar
- Alcoholic beverages

Potassium, Magnesium and Calcium can Lower BP







Potassium Rich Foods (% DV)



Low-Sodium V8, 8 oz. 26%



White potato, 1 medium 17%



Lentils, 1 cup cooked 21%



Sweet potato, 1 medium 15%



Kidney Beans, 1 cup cooked 17%



Dried apricots, ¼ cup

15%

Sonia F Shenoy, The use of a commercial vegetable juice as a practical means to increase vegetable intake: a randomized controlled trial. Nutr J. 2010; 9: 38. PMCID: PMC2949782 PMID: 20849620

Magnesium-Rich Foods (% DV)



Nuts (almonds or cashews), 1 oz. 20%



Black Beans, ½ cup

15%



Spinach, boiled, ½ cup

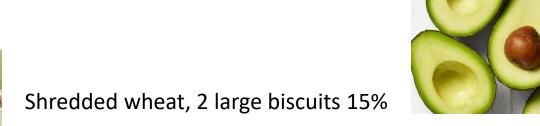
20%



Soy Milk, plain or vanilla, 1 cup 15%



Peanuts, ¼ cup or natural peanut butter, 2 Tbsp. 16-12%



Avocado, 1 medium 12%



Calcium-Rich Foods (% DV)



Enriched Almond Milk, 8 oz. 45%



Canned sardines, w/bones, 3 oz. 33%



Yogurt, plain, low fat, 8 oz. 42%



Canned salmon, w/bones, 3 oz. 18%



Fortified soy yogurt, 1 cup 40%



Navy beans, 1 cup 12%



Milk, fat-free, 8 oz. 30%



Turnip greens, boiled, ½ cup 10%



Soymilk, fortified, 8 oz. 30%



Black-eyed peas, 1 cup 9%



Sesame Seeds, 1 tsp

8%



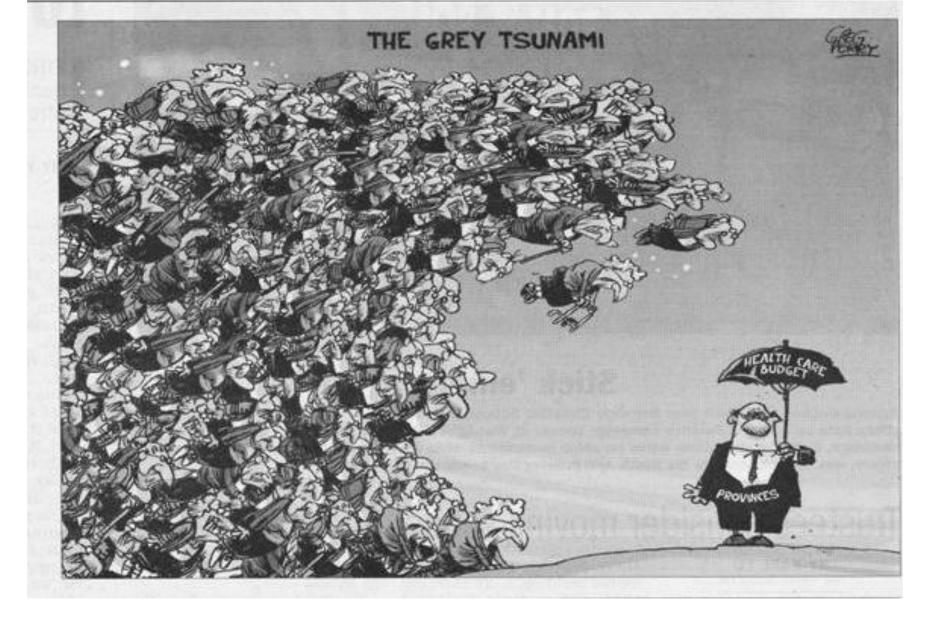


2050

Estimated 100 million people with DM

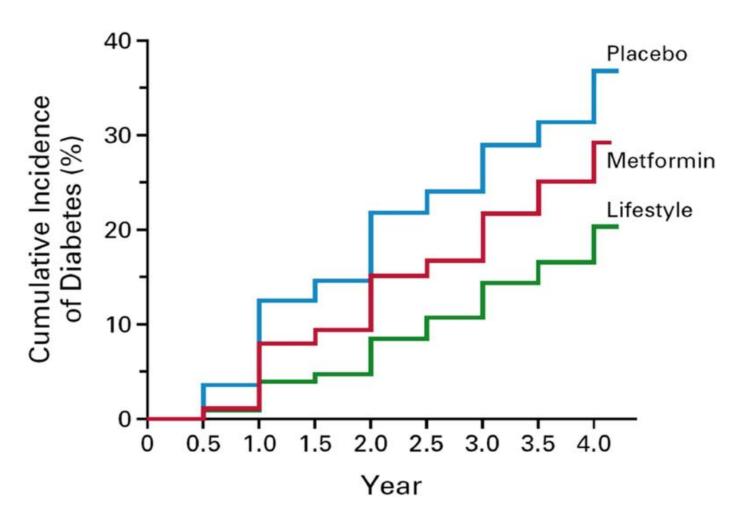
1/3 of the US population

½ of all Black and Hispanic patients



 The fact that Type II diabetes, a largely preventable disorder, has reached epidemic proportions is a public health humiliation. A strong, integrated and imaginative response is required..."The Lancet (Editors), 2010;375:2193

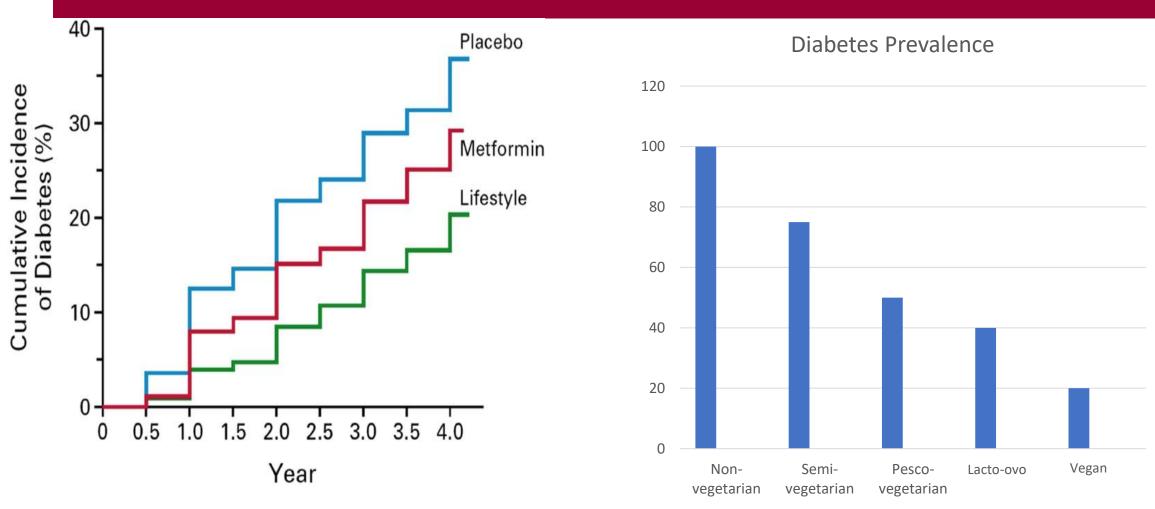
Lifestyle Changes Work



Summary of Diabetes Data

- 5-7% weight loss is the goal
 - Diabetes Prevention Program (DPP) Research Group. The Diabetes Prevention Program (DPP): description of lifestyle intervention. *Diabetes Care*. 2002;25(12):2165–2171. doi:10.2337/diacare.25.12.2165
- Any diet achieving that will work
 - Snowden, D.A. and R.L. Phillips. Does a vegetarian diet reduce the occurrence of diabetes? AM J Public Health. 1985. 75(5): p 507-12
 - Diabetes Prevention Program (DPP) Research Group. The Diabetes Prevention Program (DPP): description of lifestyle intervention. *Diabetes Care*. 2002;25(12):2165–2171. doi:10.2337/diacare.25.12.2165
- Low fat vegan performed better than ADA
 - Barnard, N.D., et al., A low-fat vegan diet and a conventional diabetes diet in the treatment of type 2 diabetes: a randomized, controlled, 74 week clinical trial. Am J Clin Nutr, 2009. 89(5): p. 1588s-1596s
- High fiber seems to work even without significant weight loss
 - Anderson, J.w. and K. Ward, High carbohydrate, high fiber diets for insulin-treated men with diabetes mellitus. Am J Clin Nutr, 1979. 32(11): p. 2312-21
- Numerous studies show meat to increase risk
 - Sluijs, I., et al. Dietary intake of total, animal and be protein and the risk of type 2 diabetes in the European prospective investigation into Cancer and Nutrition(EPIC)-NL study. Diabetes Care. 2010. 33(1): p.43-8
 - Zelber-sagi, S., et all. High Red and processed meat consumption is associated with non-alcoholic fatty liver disease and insulin resistance. J hepatic, 2018. 68(6):p.1239-1246.

Diabetes Prevention Program

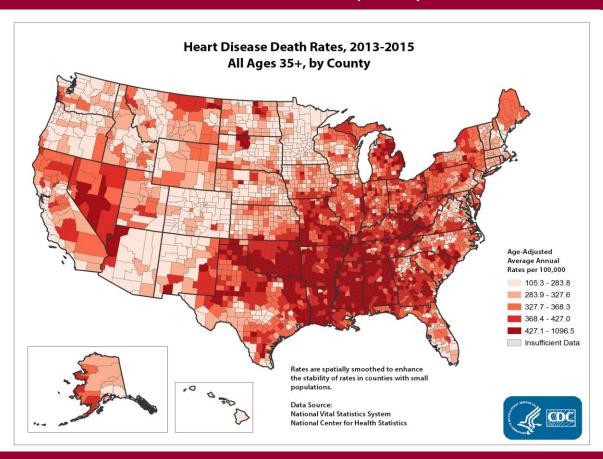


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HEART DISEASE

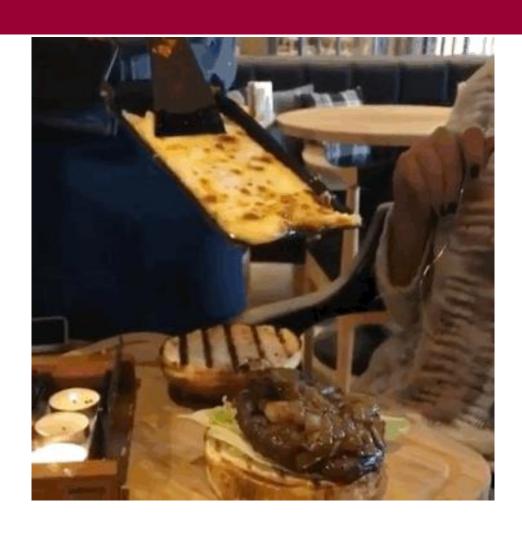
610,000 deaths per year

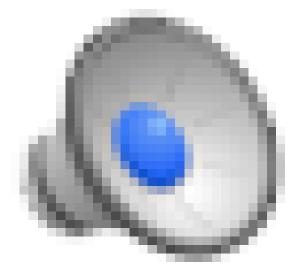


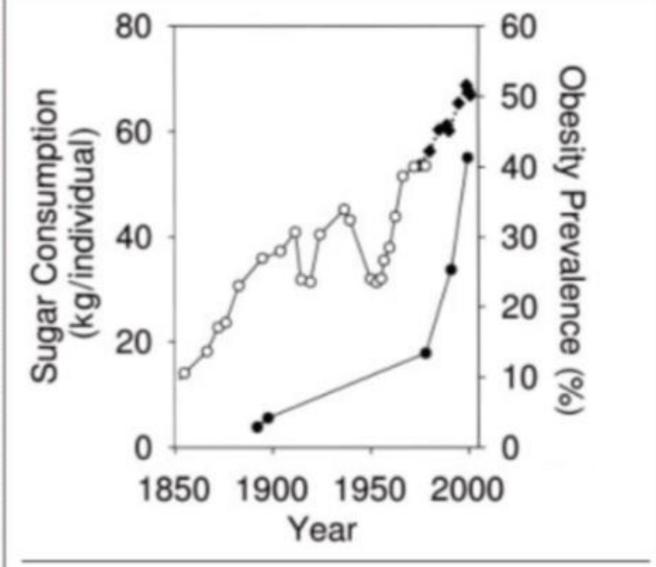
Leading Cause of Death for both Men and Women

#1 Source of Saturated Fat?

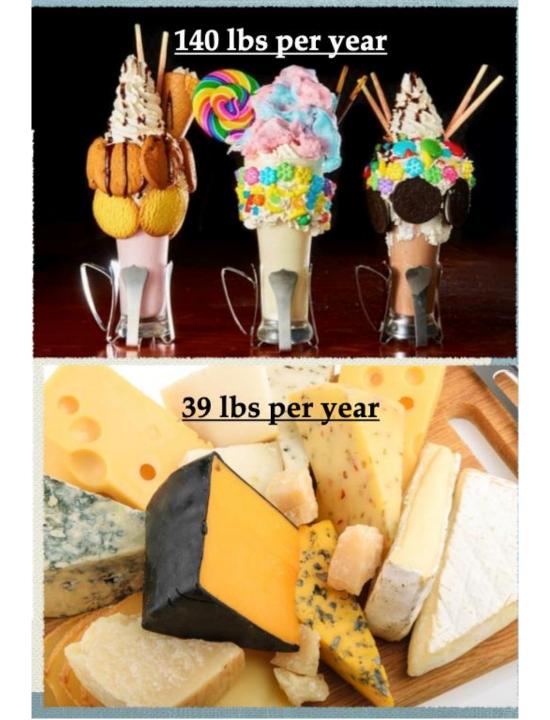
#1 Source of Saturated Fat



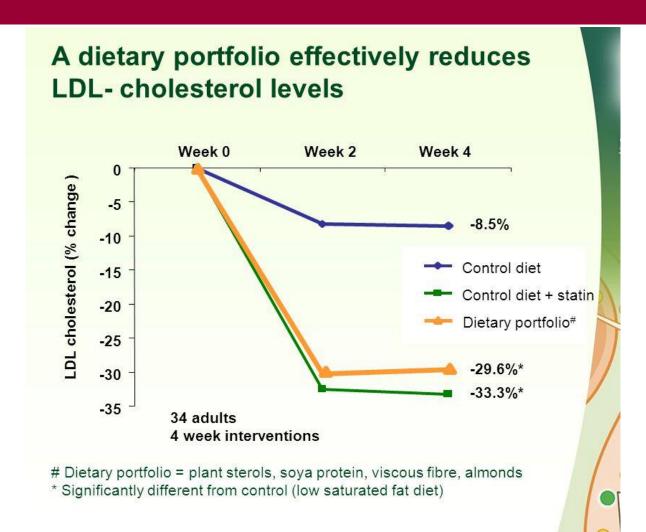


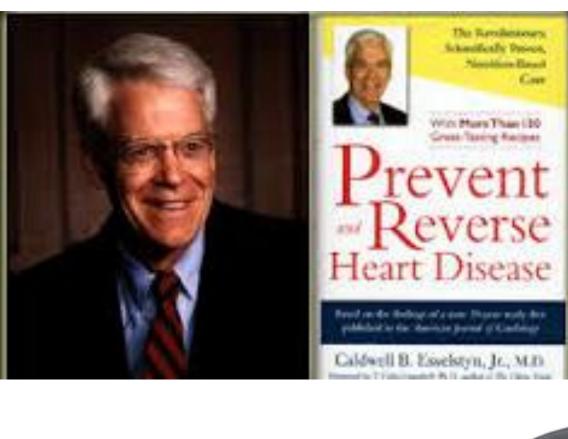


Sugar intake per capita in the United Kingdom (○) and in the United States (◆) compared with obesity rates in the United States in non-Hispanic white men aged 60–69 y (●).



Portfolio diet as good as Lovastatin



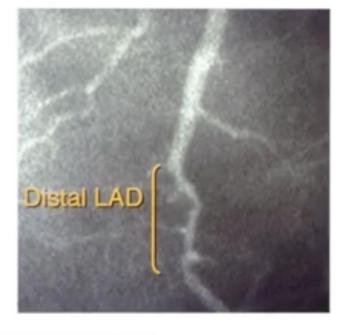


Caldwell Esselsytn MD

03:26

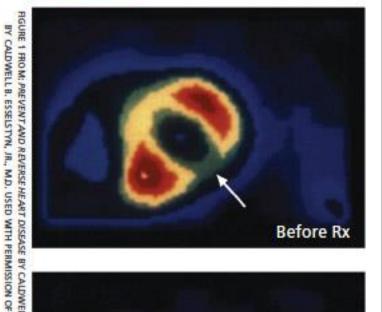


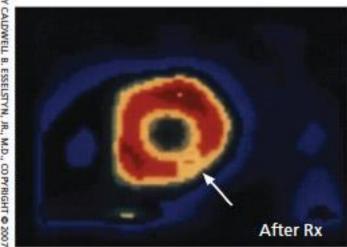
November 27, 1996



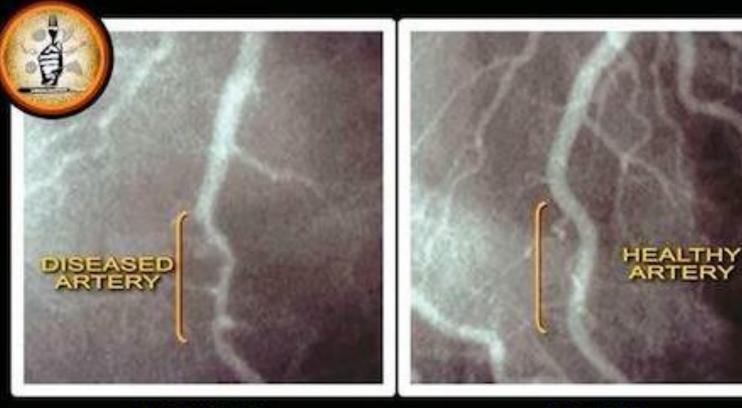
Z IIIII CO HD

Restoration of myocardial perfusion²





Positron emission tomography performed on a patient with coronary artery disease shows an area of myocardium with insufficient blood flow (top). Following only 3 weeks of plant-based nutritional intervention, normal blood flow was restored (bottom).



BEFORE AFTER

Heart disease reversal on a low-fat, whole-food, plant-based diet. Virtually all of Dr. Caldwell Esselstyn's patients have reversed or halted their coronary artery disease by following the diet he recommends.



Caldwell B. Esselstyn Jr, MD; Gina Gendy, MD; Jonathan Doyle, MCS; Mladen Golubic, MD, PhD; Michael F. Roizen, MD

The Wellness Institute of the Cleveland Clinic, Lyndhurst, Ohio

⇒ aesselstyn@aol.com

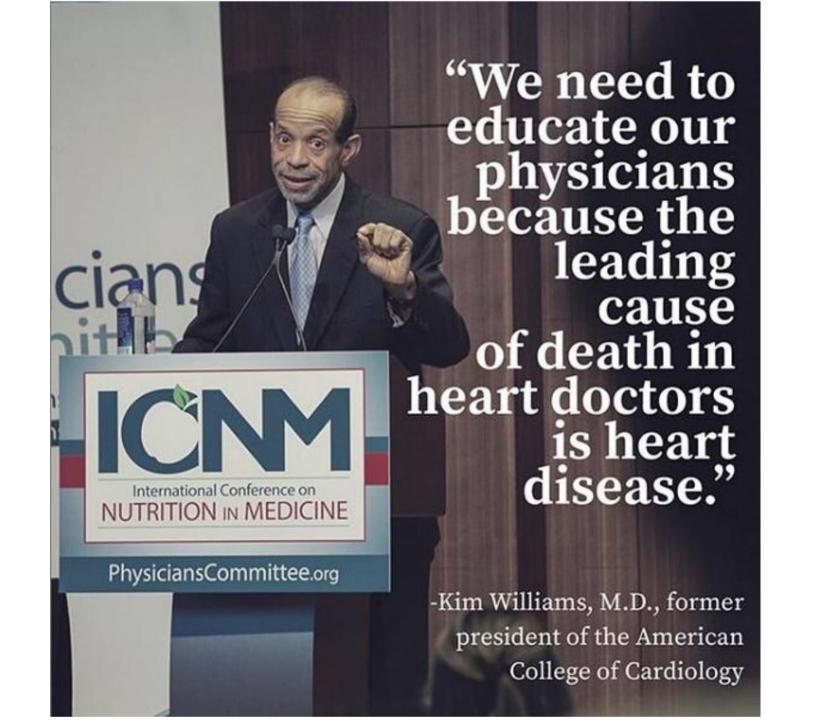
The authors reported no potential conflict of interest relevant to this article.

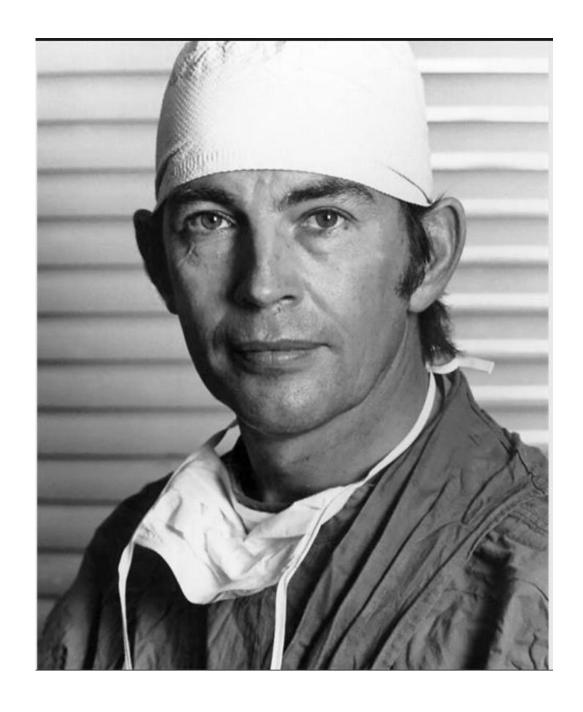
ORIGINAL RESEARCH

A way to reverse CAD?

Though current medical and surgical treatments manage coronary artery disease, they do little to prevent or stop it. Nutritional intervention, as shown in our study and others, has halted and even reversed CAD.

Esselstyn CB Jr, et al. A way to reverse CAD? J Fam Pract. 2014 Jul:63(7):356-364b.





"I have saved the lives of 150 patients by heart transplant but had I focused on preventative medicine earlier, I might have saved 150 million."

Christiaan Barnard Heart Transplant Surgeon

If Food is Medicine....

We are the experts in Medicine...

We <u>MUST</u> be Experts in Food!!







POUNDS
DAYS

The Martha's Vineyard Diet Detox

RONI DeLUZ, RN, ND Founder of the Martha's Vineyard Holistic Retreat with JAMES HESTER











The 30-DAY Guide to TOTAL HEALTH and FOOD FREEDOM

From the best-selling outhors of IT STARTS WITH FOOD

Melissa Hartwig and Dallas Hartwig





What is Lifestyle Medicine?

SLEEP



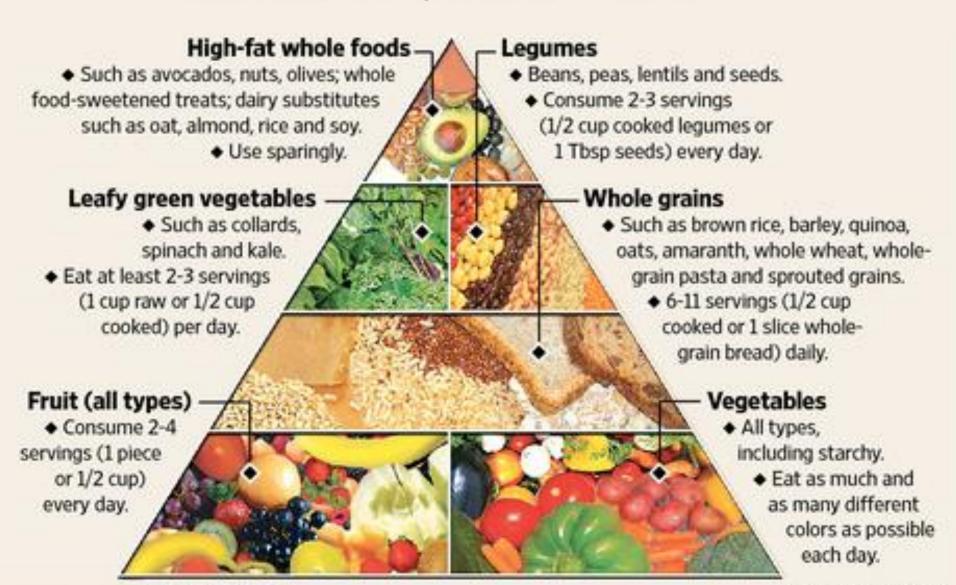
STRESS

MANAGEMENT

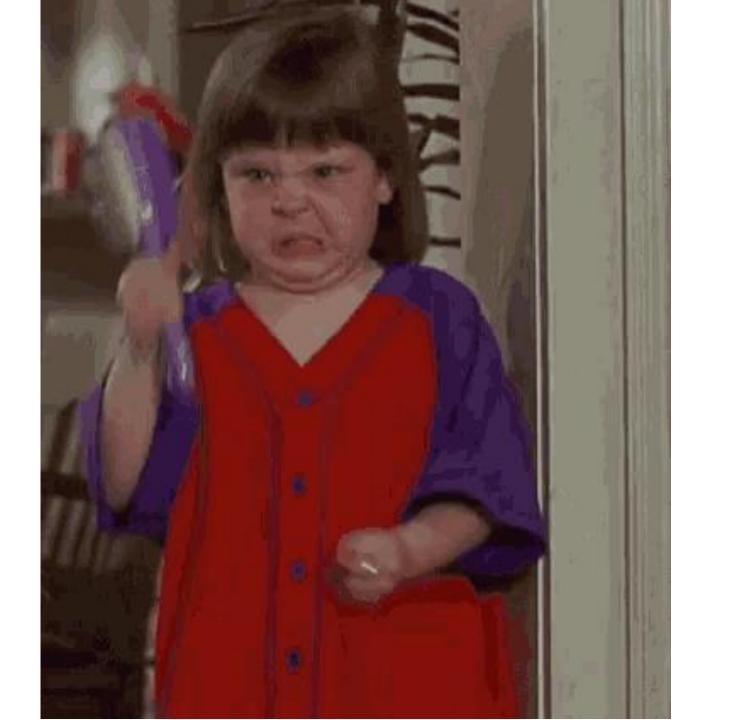


RELATIONSHIPS

A Whole-Food, Plant-Based Diet

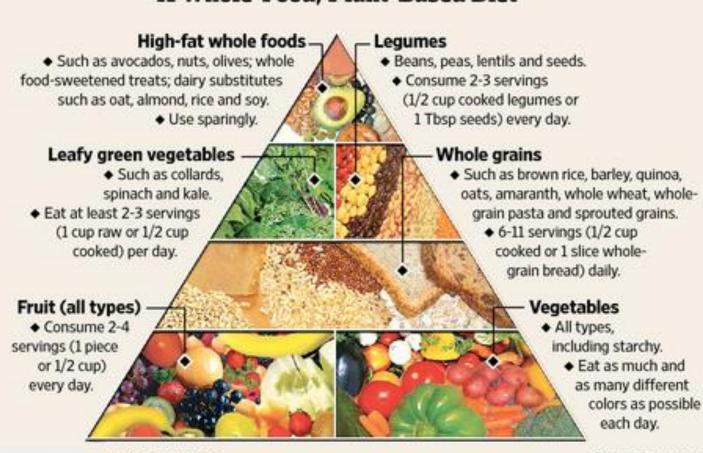


lever: Sherri Nestorowich The Wall Street Journal





A Whole-Food, Plant-Based Diet



Toyor: Shorri Nostorowich

The Wall Street Journal



Growth of PLANT-BASED MILKS vs. Cow's Milk in Retail



3% PLANT-BASED MILKS 2017*



-6% cow's MILK 2018**



- * 52 weeks dollar sales ending August 2017
- ** 52 weeks dollar sales ending June 2018 PBFA-commissioned data from Nielsen

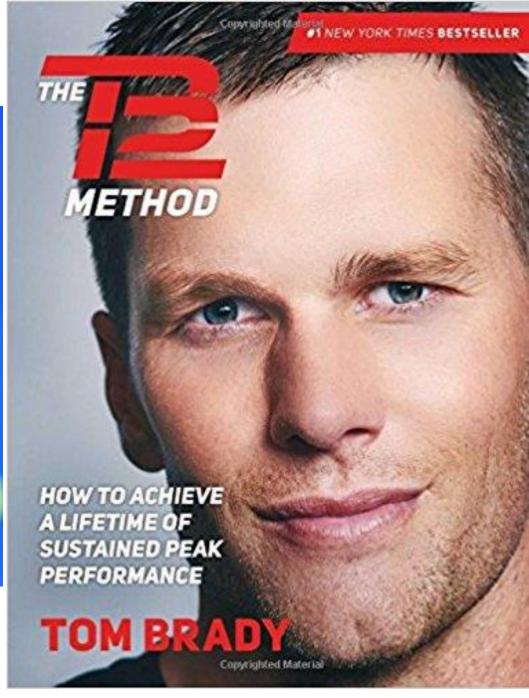


plantbasedfoods.org









Long Term Success



Tandy YMCA Healthy Table



















ORIGINAL RESEARCH



Development and Evaluation of a Nutrition-Centered Lifestyle Medicine Curriculum for Physician Assistant Students

Marianna S. Wetherill ^{1,2} • Gracen C. Davis ² • Krista Kezbers ² • Valarie Carter ¹ • Elizabeth Wells ² • Mary B. Williams ^{1,2} • Shannon D. Ijams ² • Dominique Monlezun ³ • Timothy Harlan ³ • Lori J. Whelan ²

The Author(s) 2018

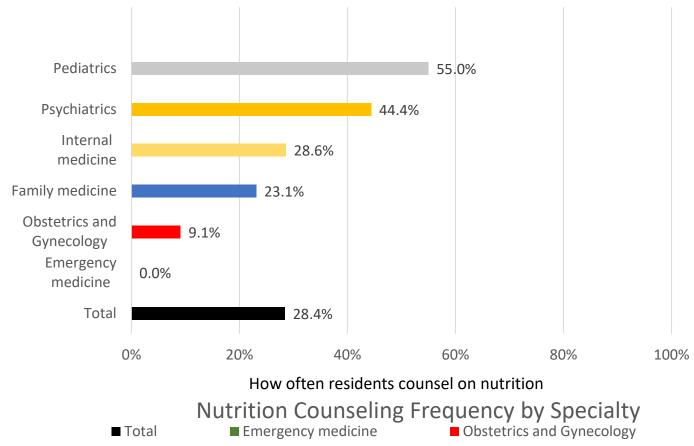
Abstract

Background US medical schools are increasingly integrating lifestyle medicine competencies into their academic programs. Yet, physician assistant (PA) academic programs have been slower to respond.

Methods We developed, implemented, and evaluated a nutrition-centered lifestyle medicine curriculum for 2nd-year PA students (*n* = 24). The 4-week hybrid, 2-credit hour course activities aligned with the American College of Lifestyle Medicine competencies for primary care providers and reinforced four of the Accreditation Standards for PA Education. We combined didactic lectures with weekly hands-on cooking modules from the "Health meets Food" courseware for medical students. We employed a pre-post evaluation design including a comparison group of 2nd-year PA students in a separate program. We assessed changes in personal nutrition behaviors and knowledge and confidence for counseling in nutrition, exercise/physical activity, weight, smoking, and alcohol, using the modified 5A's framework (assess, advise, agree, assist, and arrange) for lifestyle counseling. **Results** Students receiving the intervention demonstrated significantly higher gains in both knowledge and confidence for the 5A's of nutrition counseling compared to the control group. Self-reported knowledge and confidence for the 5A's of counseling for the other lifestyle behaviors similarly improved among the intervention group compared to the control group, but to a lesser extent.

Conclusion A nutrition-centered lifestyle medicine course can demonstrate PA academic program adherence to accreditation standards, while also introducing students to nutrition and lifestyle medicine competencies. Hands-on experiences that reinforce didactic instruction may maximize student knowledge and self-efficacy for implementing lifestyle medicine into their practice.

Keywords Physician assistant students · Medical nutrition education · Culinary medicine · Lifestyle medicine





2017-2018	28 classes	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY
week 1							MS Mod 1	MS Mod 3	MS Mod 5	MS Mod 7	MS Mod 9	PA Mod 1	PA Mod 5
week 2							MS Mod 2	MS Mod 4	MS Mod 6	MS Mod 8	Peds Res	PA Mod 2	PA Mod 6
week 3							community	community	community	EM Res	FM Res	PA Mod 3	PA Mod 7
week 4							OU staff	OU staff	OU staff	OB Res	IM Res	PA Mod 4	PA Mod 8
2018-2019	56 classes	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY
week 1		OU staff	OU staff	OBGYN Res	IM Resident		MS1 Mod 1	MS1 Mod 3	MS1 Mod 5	MS1 Mod 7	OBGYN Res	PA Mod 1	PA Mod 5
		OU staff	OU staff	EM Res	FM Resident		MS1 Mod 1	MS1 Mod 3	MS1 Mod 5	MS1 Mod 7	EM Res	PA Mod 2	PA Mod 6
week 2		OU staff	OU staff	Peds Res	Psych Res		MS1 Mod 2	MS1 Mod 4	MS1 Mod 6	MS1 Mod 8	Peds Res	PA Mod 3	PA Mod 7
		CME	CME	Bootcamp	fom dinner		MS1 Mod 2	MS1 Mod 4	MS1 Mod 6	MS1 Mod 8	IM Resident	PA Mod 4	PA Mod 8
week 3							community	community	community	community	FM Resident	Psych Res	Bootcamp
		3 afternoon	YMCA intro cl	asses									
week 4		6 healthy cod	oking basics r	ecruit at vegf	est								
2019-2020		AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY
week 1		pat ref HTN	pat ref DM	OBGYN Res	IM Resident	нсв	MS1 Mod 1	MS1 Mod 2	MS1 Mod 3	MS1 Mod 4	STUDENT ACADEM	PA Mod 1	PA Mod 5
		pat ref HTN	pat ref DM	EM Res	FM Resident	нсв	MS1 Mod 1	MS1 Mod 2	MS1 Mod 3	MS1 Mod 4	STUDENT ACADEM	PA Mod 2	PA Mod 6
week 2		pat ref HTN	pat ref DM	Peds Res	Psych Res	нсв	MS2 Mod 5	MS2 Mod 6	MS2 Mod 7	MS2 Mod 8	STUDENT ACADEM	PA Mod 3	PA Mod 7
		pat ref HTN	pat ref DM	MPH studen	нсв	нсв	MS2 Mod 5	MS2 Mod 6	MS2 Mod 7	MS2 Mod 8	STUDENT ACADEM	PA Mod 4	PA Mod 8
week 3		YMCA	YMCA	YMCA	YMCA	FOM dinner	OBGYN Res	EM Res	Peds Res	IM Resident	FM Resident	Psych Res	нсв
		community	community	community	community	community	community	CME	CME	CME	CME	CME	



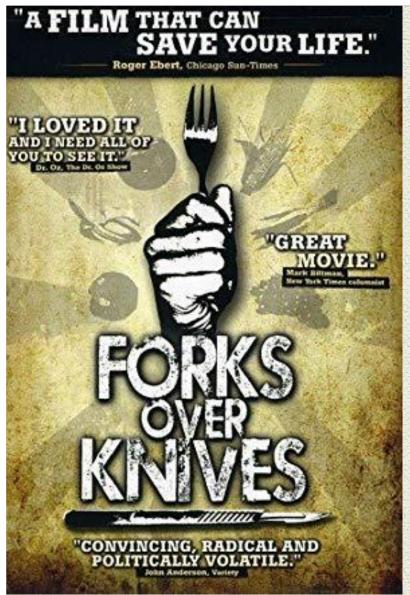
Ellen Ochoa Elementary School

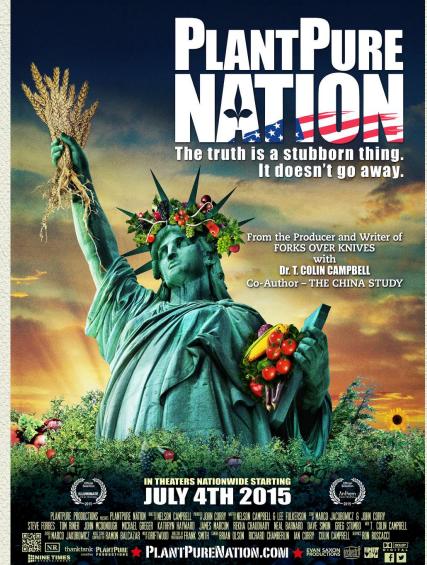




Lifestyle Medicine & Health Promotion I (INDT 8162) Fall 2019 - Spring 2020 37 Clock Hours

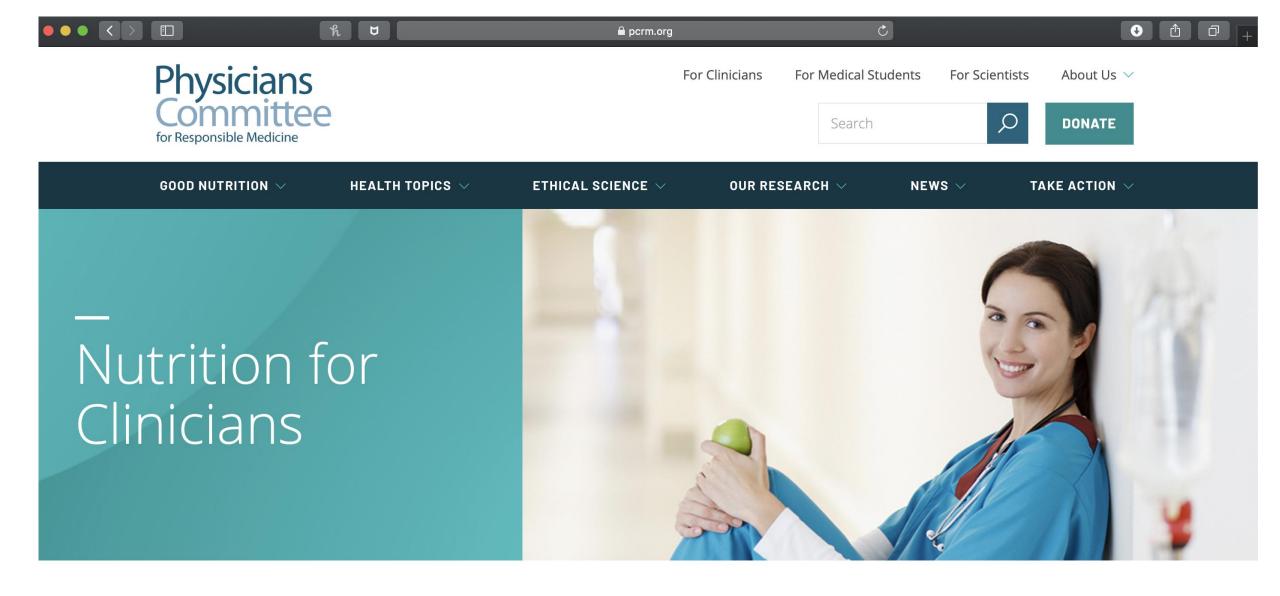
MS1 Fall Semester		MS1 Spring Semester	
7 hours Didactic	7 hours Application	11 hours Didactic	13 hours Application
2h Nutrition (intro, allergy) 1h Intro to lifestyle medicine 3h Emotional/Mental well- being 1h Role of physician	2h Cooking Class 2h Cooking Class 3h Self-care Skills(meditation, etc.)	2h Nutrition (GI, Diabetes) 3h Sleep Science 1h Connectedness Positive Psych 2h Physical Activity Science 3h Fund of Health Behavior Change	2h Cooking Class 2h cooking Class 9h Bedlam*
MS2 Fall Semester		MS2 Spring Semester	
9 hours Didactic	10 hours Application	3 hours Didactic	9 hours Application
2h Nutrition (CV, Mental Health) 2h Tobacco and Toxic Exposures 2h Key Clinical processes in LM 3h Physical Activity Science	2h Cooking Class 2h Cooking Class 6h Bedlam*	2h Nutrition (pregnancy, arthritis) 1h Connectedness and positive psych	2h Cooking class 2h Cooking class 6 Bedlam*
MS3 Fall Semester		MS3 Spring Semester	
1 hour Didactic	8 Application hours	1 hour Didactic	8 Application hours
1h Nutrition Student Academy	Bedlam L Student Academy small group discussions: Fundamentals of health behavior change Role of Connectedness and positive psychology	1h Physical Activity Student Academy	Bedlam L Student Academy small group discussions: Fundamentals of health behavior change Role of Connectedness and positive psychology





The Health Film That Health Organizations Don't Want You To See. WHAT THE FROM THE CREATORS OF THE ANNALO MINIMUMS FILM "CONSPIRACY"

www.WhatIheHealthFilm.com



The Physicians Committee offers tools to help you bring **nutrition** into your practice.

SHOP



P









Forks Over Knives Magazine – Winter 2019

\$9.99

This gorgeous "bookazine" dedicated to the plant-based lifestyle is filled with 100 pages of expert tips, practical advice, beautiful photos and illustrations, inspiring success stories, and 78 healthy, satisfying recipes that put the pleasure in plant-based eating. Featured recipes include:

- Tasty Buddha bowls for two
- Essential homemade sauces, from a guilt-free mayo to the ultimate marinara
- Incredible 30-minute weeknight dinners
- Cozy winter soups and stews
- Inspired noodle dishes from around the world

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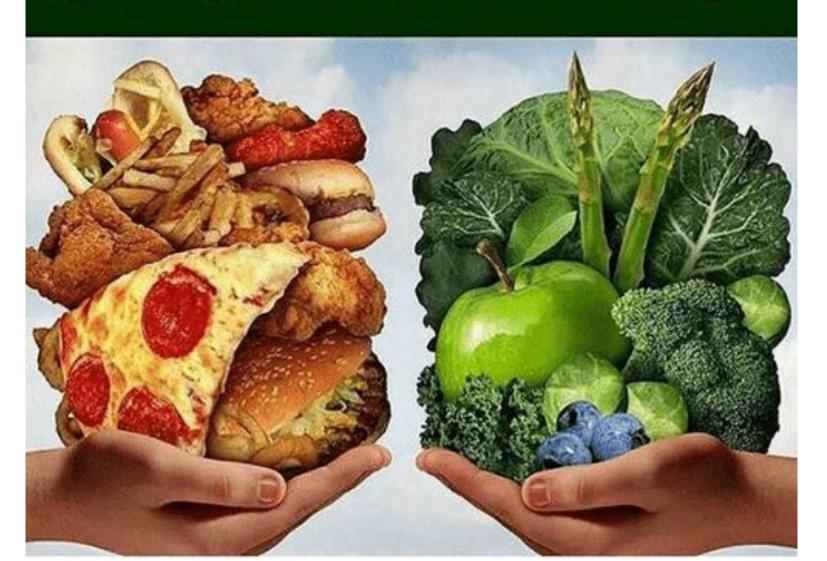




New on the blog



Every bite you take is either fighting disease or feeding it



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