



2018: The Tipping Point?

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Disclosures

No relevant disclosures to this presentation.

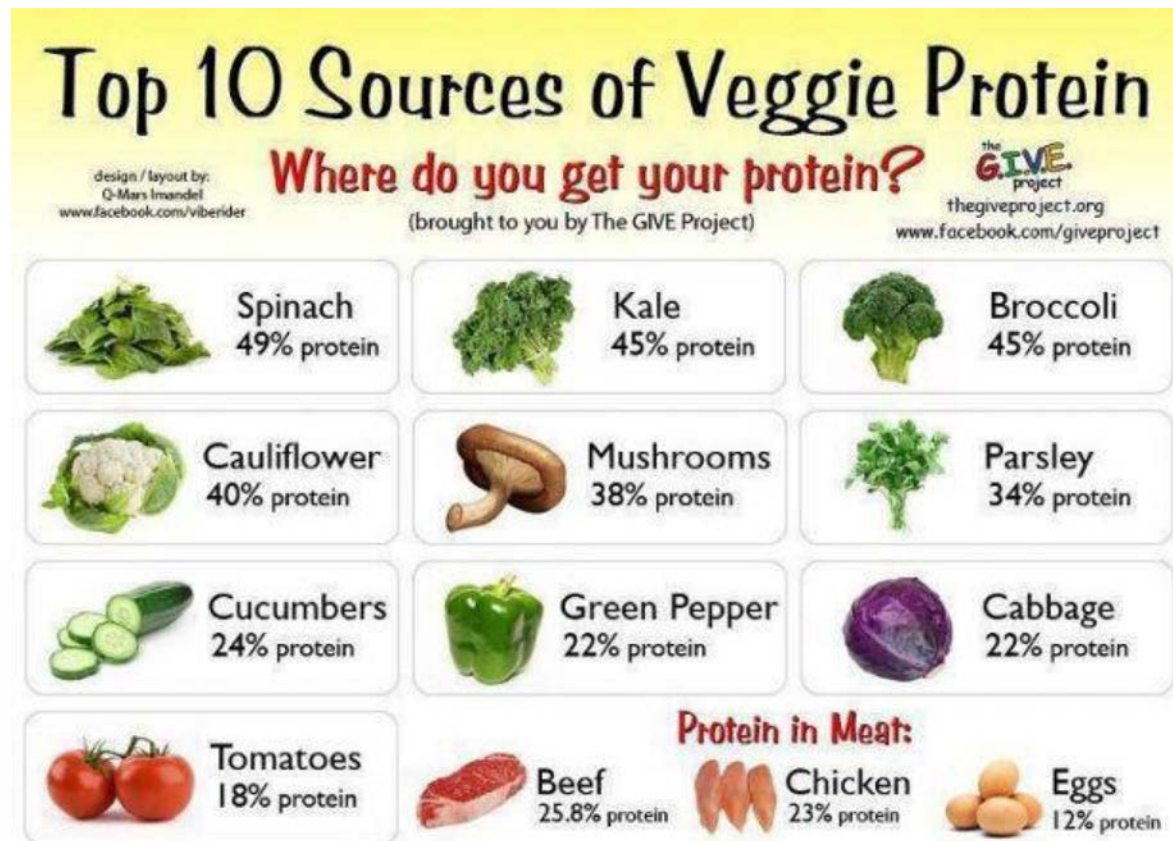
Other disclosures:

Consulting Fees – BI



Getting Enough Protein?

- Yes, yes, yes. Only 30 grams per day needed.



Protein

No one cares about your protein intake until they find out you're vegan.



your  cards
someecards.com



Protein

Person: So you're vegan?

Me: Yes.

Person: But where do you get your protein?

Me: I don't. There are no plant sources of protein. I'll probably die soon.

Person: I know that's not true.

Me: Then why did you ask?

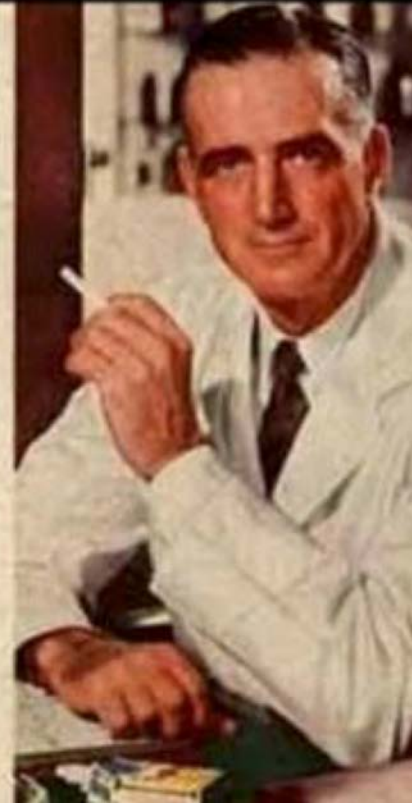


Really?

**"MY DOCTOR SAID
I NEED TO EAT MEAT"**

According to repeated nationwide surveys,

**More Doctors
Smoke **CAMELS**
than any other
cigarette!**



Doctors in every
branch of medicine

You'll enjoy Camels for the same reasons
so many doctors enjoy them. Camels have
cool, cool mildness, pack after pack, and



Notice

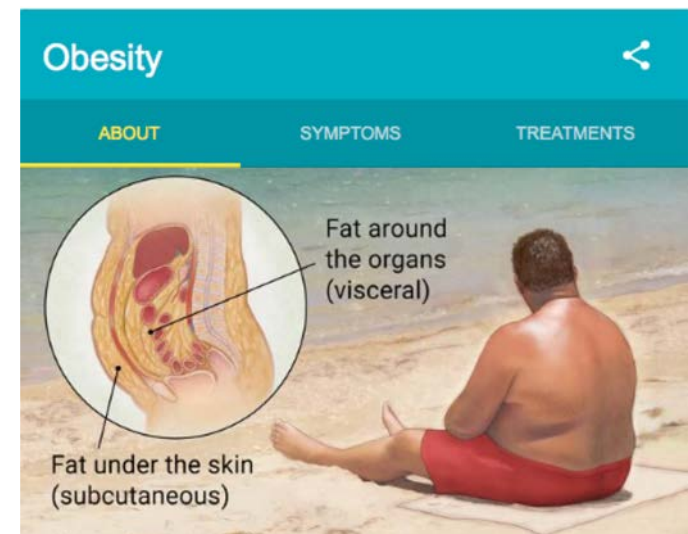
- It is impossible to do a nutrition study purely without imprisoning people and ensuring nutritional intake.
- Many studies are observational, and do not show cause, but show significant relationships.



CDC: No Improvement in Obesity Rates

- BMI data from the National Health and Nutrition Examination Surveys (NHANES) from 1999-2016: 39.8% of adults and 18.5% of children were obese.
- Higher prevalence rates among middle-aged adults (40 to 59 years) and older youth (12 to 19 years).
- Rates remain higher than goals set by the Healthy People 2020 initiative and show no signs toward decline.

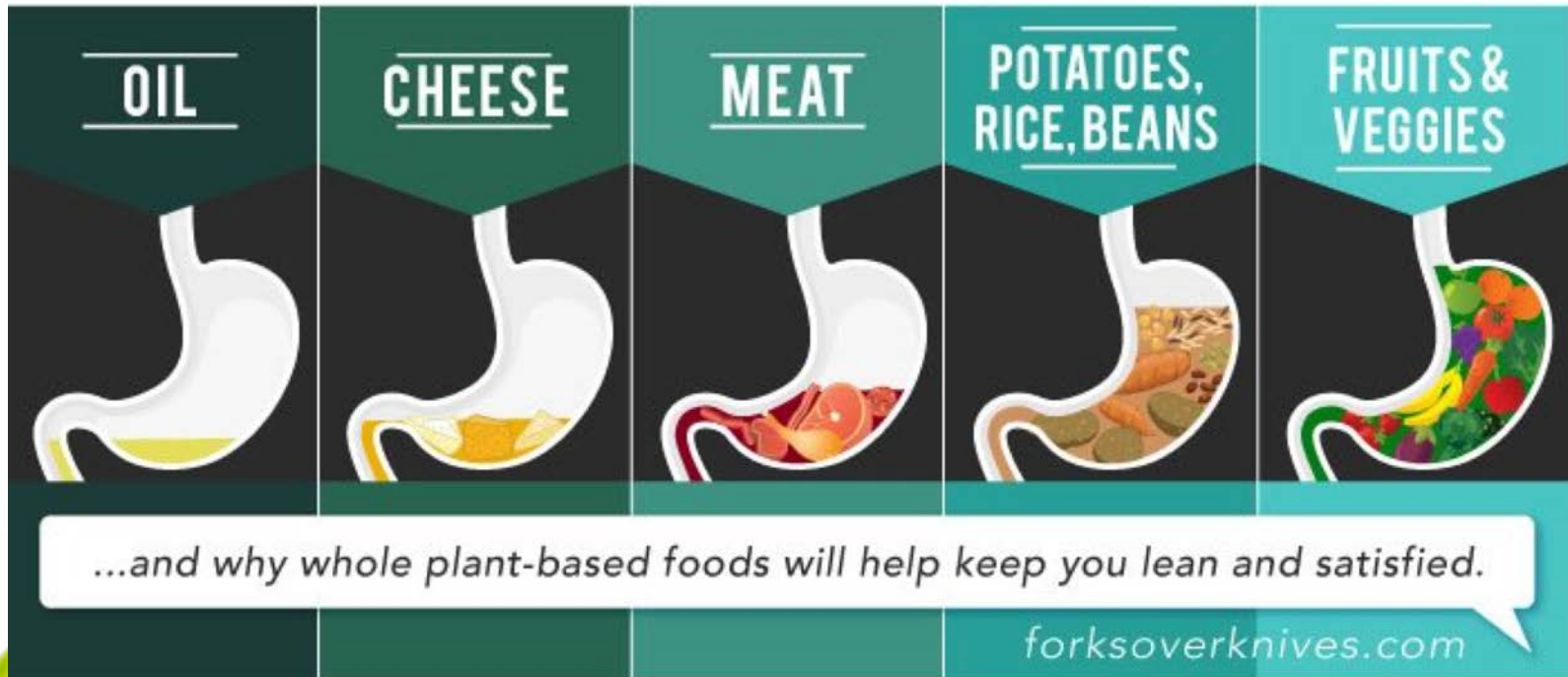
Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of obesity among adults and youth: United States, 2015–2016. Centers for Disease Control and Prevention web site. Available at: <https://www.cdc.gov/nchs/data/databriefs/db288.pdf>. Published October 13, 2017



Eating The Right Things...

CALORIE DENSITY

WHAT 500 CALORIES LOOK LIKE



CDC: We Eat Poorly

- 9% of adults eat enough vegetables
- 12% get the recommended amount of fruit daily
- 1 in 10 adults is eating more fruits and vegetables than recommended in the government's 2015-2020 dietary guidelines.
- How much is enough? ~ 5 total servings per day (up to 13)
- Men fare worse than women on the fruits-and-veggies scorecard.
- Young adults, aged 18 to 30, are less inclined to eat their greens, broccoli and bananas than older folks.



Nov. 17, 2017, CDC
*Morbidity and Mortality
Weekly Report*



Healthcare Expenditures

- By 2026, national health spending will **climb to \$5.7 trillion, or nearly a fifth of the economy.**
- Prescription drug spending is expected to grow at 6.3% per year, on average, between 2017 to 2026.
- Health care spending is expected to rise by an average of 5.5 percent annually through 2026, or about 1 percentage point **faster** than economic growth.



<https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2017.1655>

<https://www.bloomberg.com/news/articles/2018-02-14/health-prices-to-outpace-inflation-for-first-time-since-2010>

Start Younger

- Folks in their 20s who closely followed the "Life's Simple 7" guidelines from the American Heart Association had brains in middle age that appeared more than a decade younger than those who didn't follow the guidelines
- 518 people participating in a long-range heart health study.
- Followed 30 years
- They have received follow-up exams every two to five years, and had brain scans 25 years after entering



Cardiovascular health in young adulthood and structural brain MRI in midlife

The CARDIA study

Michael P. Bancks, Norrina B. Allen, Prachi Dubey, Lenore J. Launer, Donald M. Lloyd-Jones, Jared P. Reis, Stephen Sidney, Yuichiro Yano and Pamela J. Schreiner

First published July 19, 2017, DOI:


<https://doi.org/10.1212/WNL.0000000000004222>





Coronary Disease

- Nurses' Health Study (NHS) (1984-2012), Nurses' Health Study 2 (NHS2) (1991-2013), and men in Health Professionals Follow-up Study (HPFS) (1986-2012)
- Healthful PDI (plant diet index) was created and defined by healthy plant foods (whole grains, fruits/vegetables, nuts/legumes, oils, tea/coffee) receiving positive scores, while less-healthy plant foods (juices/sweetened beverages, refined grains, potatoes/fries, sweets) and animal foods received reverse scores.
- 73,710 women, 92,329 women, and 43,259 men with over 4,833,042 person-years of follow-up, 8,631 incident CHD cases were documented.
- Higher adherence to PDI was associated with lower CHD (hazard ratio [HR] comparing extreme deciles, 0.92; 95% confidence interval [CI], 0.83-1.01; p trend = 0.003). = **8% LESS RISK (TREND)**
- A healthful PDI was more strongly associated with lower risk for CHD (HR, 0.75; 95% CI, 0.68-0.83; p trend < 0.001) = **25% LESS RISK**
- In contrast an unhealthy PDI was associated with an increased risk for CHD (HR, 1.32; 95% CI, 1.20-1.46; p trend < 0.001) = **32% MORE RISK**



Satija A, Bhupathiraju SN, Spiegelman D, et al. [Healthful and Unhealthy Plant-Based Diets and the Risk of Coronary Heart Disease in U.S. Adults. *J Am Coll Cardiol* 2017;70:411-422.](#)

Nuts for CVD

- 76,364 women from the Nurses' Health Study (1980 to 2012), 92,946 women from the Nurses' Health Study II (1991 to 2013), and 41,526 men from the Health Professionals Follow-Up Study (1986 to 2012)
- 1 serving of nuts (28 g) 5 or more times per week:
 - **14% less CVD and 20% less coronary disease**
- Consumption of peanuts and tree nuts (2 or more times/week) and walnuts (1 or more times/week):
 - **13% to 19% lower risk of total cardiovascular disease and 15% to 23% lower risk of coronary heart disease.**



Nut Consumption and Risk of Cardiovascular Disease

Marta Guasch-Ferré, Xiaoran Liu, Vasanti S. Malik, Qi Sun, Walter C. Willett, JoAnn E. Manson, Kathryn M. Rexrode, Yanping Li, Frank B. Hu, Shilpa N. Bhupathiraju
Journal of the American College of Cardiology Nov 2017, 70 (20) 2519-2532; DOI: 10.1016/j.jacc.2017.09.035

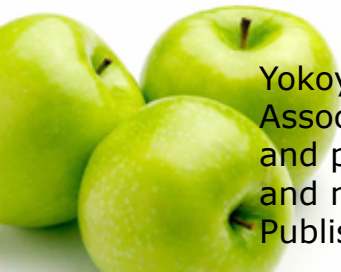


Cholesterol

- 49 observational and intervention studies compared vegetarian and vegan diets with omnivorous diets and their effects on plasma lipids.
- Consumption of vegetarian diets was associated with lower mean concentrations of total cholesterol (-29.2 and -12.5 mg/dL, $P < 0.001$), low-density lipoprotein cholesterol (-22.9 and -12.2 mg/dL, $P < 0.001$) [looking at pooled result and clinical trials]
- Effect more pronounced with vegan diets



Yokoyama Y, Levin SM, Barnard ND.
Association between plant-based diets
and plasma lipids: a systematic review
and meta-analysis. *Nutr Rev.*
Published online August 21, 2017.



Osteoarthritis

- A **fiber-rich diet** lowers the risk for knee osteoarthritis, according to findings published in the *Annals of the Rheumatic Diseases*.
- Researchers reviewed and compared x-ray evidence and arthritic symptom reports with fiber intake and lifestyle data from Osteoarthritis Initiative (OAI) and the Framingham Offspring cohort study.
- Those who consumed the highest amounts of fiber from the OAI and Framingham studies had a 30% and 61% lower risk for knee arthritis, respectively, compared with those who consumed the least.



Dai Z, Niu J, Zhang Y, Jacques P, Felson DT. Dietary intake of fibre and risk of knee osteoarthritis in two US prospective cohorts. *Ann Rheum Dis*. Published online May 23, 2017.



The Environment Needs Us

- Swapping beef for **beans** would help the United States reach targeted greenhouse gas emission reductions, according to a report published in *Climatic Change*.
- Researchers compared simulated net emissions of legume production, subtracted those from average beef production rates, and used U.S. reduction goals for 2020 as a reference.
- Based on the results, legume substitution could account for 46-74% percent of the required reductions.
- 42% less cropland would be needed as well.

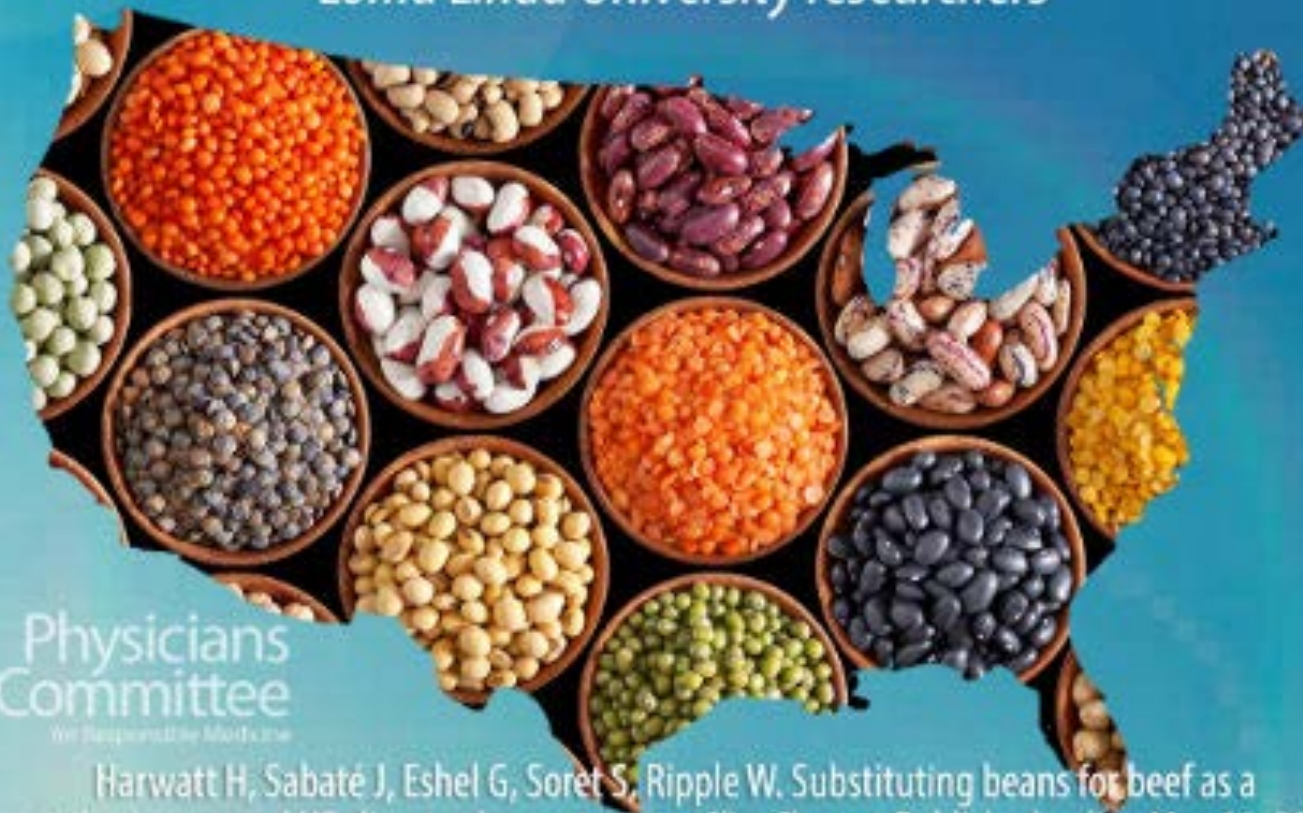


Harwatt H, Sabaté J, Eshel G, Soret S, Ripple W. Substituting beans for beef as a contribution toward US climate change targets. *Clim Change*. Published online May 11, 2017.



“If Americans would eat beans instead of beef, the United States would immediately realize approximately 50 to 75% of its greenhouse gas reduction targets for the year 2020.”

—Loma Linda University researchers



Physicians
Committee
We Respect the Medicine

Harwatt H, Sabaté J, Eshel G, Soret S, Ripple W. Substituting beans for beef as a contribution toward US climate change targets. *Clim Change*. Published online May 11, 2017.

And What About Lifestyle Recommendations for Lipids?

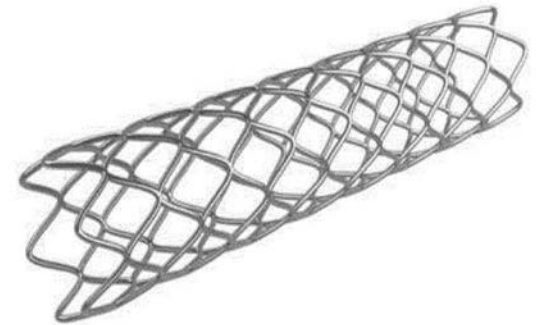
Dietary Modification	Recommendation	~LDL-C Reduction
Saturated fat	<7% calories	8%-10%
Dietary cholesterol	<200 mg/d	3%-5%
Plant stanols/sterols	Up to 2 g/d	6%-10%
Viscous dietary fiber	5-10 g/d	3%-5%
Soy protein	20-30 g/d	5%-7%
Almonds	>10 g/d	1%/10 g
Weight reduction	Lose 10 lb (4.5 kg)	5%-8%
Total		30%-45%



Ripsin CM, et al. *JAMA*. 1992;267:3317-3325.
 Rambjor GS, et al. *Lipids*. 1996;31:S45-S49.
 Jones PJH. *Curr Atheroscler Rep*. 1999;1:230-235.
 Lichtenstein AH. *Curr Atheroscler Rep*. 1999;1:210-214.
 Expert Panel on Detection, Evaluation, and Treatment of
 High Blood Cholesterol in Adults. *Circulation* 2002;106:3143-3421.
 Jenkins DJ, et al. *JAMA*. 2003;290:502-510.

Stents in Stable Angina

- ORBITA Trial: 200 patients with chronic stable angina
- At least one artery with 70% blockage
- No significant change in the primary outcome: change in exercise time from baseline for stent versus the sham treatment.
- No significant change in angina severity score or physical limitation and no significant change in angina
- **Stents are not the only answer, and in some cases, not the best answer**



Percutaneous coronary intervention in stable angina (ORBITA): a double-blind, randomised controlled trial
Al-Lamee, Rasha Al-Lamee, Rasha et al.
The Lancet , Volume 391 , Issue 10115 , 31 - 40

Diabetes

- In a long-term study from Finland of over 2,000 men followed over 19 years
- Replacing even 1% of calories from animal proteins with plant proteins
- Lowered the risk of developing diabetes by 18%.
- This association remained after adjusting for BMI.



Vitanen HEK et al. *Br J Nutr.* 2017
Mar;117(6):882-893. doi:
10.1017/S0007114517000745. Epub
2017 Apr 11.



Fight Diabetes with Food

- Assessed insulin resistance after a meal for 75 people who were overweight
- All did not have diabetes
- Followed 16 weeks, half of whom followed a low-fat, vegan diet.
- Vegan diet group increased meal-stimulated insulin secretion and beta-cell glucose sensitivity and lowered their body weight, compared with the control group.
- A vegan dietary intervention may help to prevent diabetes.



Kahleova H, Tura A, Hill M, Holubkov R, Barnard ND. A plant-based dietary intervention improves beta-cell function and insulin resistance in overweight adults. A 16-week randomized clinical trial. *Nutrients*.



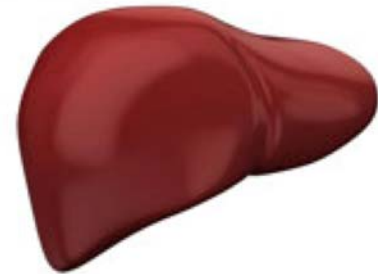
Fatty Liver

- Often the precursor to DM2
- 3,000 subjects in the Netherlands
- Increased dietary proteins from animal sources were associated with a greater risk (reaching 50% higher) of developing fatty liver disease.

Alferink, Louise & Kiefte-deJong, J.C. & Veldt, Bart & Schoufour, Josje & Taimr, Pavel & Ikram, A.M. & Janssen, H.L.A. & Metselaar, H.J. & Franco, Oscar & Murad, S.D.. (2017). Animal protein is the most important macronutrient associated with non-alcoholic fatty liver disease in overweight participants: The Rotterdam Study. *Journal of Hepatology*. 66. S50. 10.1016/S0168-8278(17)30363-X.



Fatty Liver



Healthy Liver

Asthma

- 971 participants (mean age 43 years; 49% men)
- Positive direct effect of cured meat intake on worsening asthma symptoms
(multivariable OR=1.76, 95% CI 1.01 to 3.06 for ≥ 4 vs < 1 serving/week)
- 76% worsened symptoms for > 4 x week

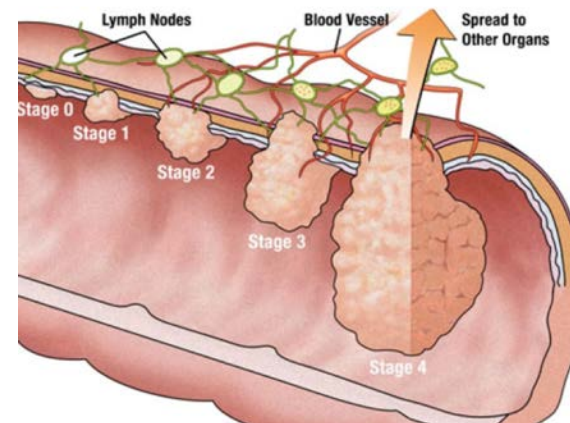


Li Z, Rava M, Bédard A, *et al*
Cured meat intake is associated with
worsening asthma symptoms
Thorax 2017;**72**:206-212.



Colon Cancer

- 111 unique cohort studies were included in a large meta analysis
- Overall, the risk increase of colorectal cancer is 12% for each 100 g/day increase of red and processed meat intake (95% CI = 4-21)



[Vgieria et al . Ann Oncol. 2017 Aug 1;28\(8\):1788-1802. doi: 10.1093/annonc/mdx171.](#)

Depression

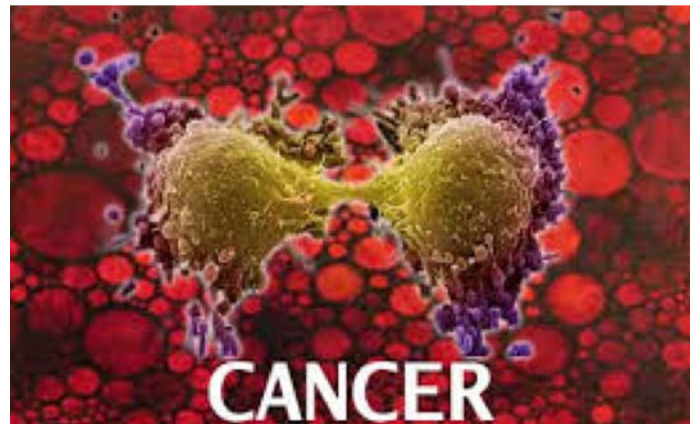
- Meta analysis of 21 studies from ten countries
- High intakes of fruit, vegetables, whole grain, fish, olive oil, low-fat dairy and antioxidants and low intakes of animal foods was apparently associated with a **decreased risk of depression.**
- High consumption of red and/or processed meat, refined grains, sweets, high-fat dairy products, butter, potatoes and high-fat gravy, and low intakes of fruits and vegetables is associated with an **increased risk of depression.**

[Li et al. Psychiatry Res. 2017](#)
Jul;253:373-382. doi:
10.1016/j.psychres.2017.04.0
20. Epub 2017 Apr 11.



Head and Neck Cancer

- 120,852 participants (aged 55-69 years) completed a baseline 150-item food frequency questionnaire (FFQ), from which daily meat and fish intake were calculated.
- 20.3 years of follow-up
- Processed meat intake, but not red meat intake, was positively associated with 46% more head and neck cancer



[Perloy et al. Cancer Causes Control. 2017 Jun;28\(6\):647-656. doi: 10.1007/s10552-017-0892-0. Epub 2017 Apr 5.](#)

Breaking the Soy Myth

- INTERHEART China Study, A case-control study: There were 1312 cases of first MI and 2235 control subjects
- 19 item food frequency questionnaire
- High intake of vegetables, fruits and tofu:
 - Adjusted ORs of AMI were 0.81 (95%CI: 0.66 - 1.00) for the second quartile, 0.67 (95%CI: 0.54 - 0.82) for the third, and 0.70 (95%CI: 0.56 - 0.88) for the fourth.
- This is an **up to 33% risk reduction**



Breaking the Soy Myth 2

- Japanese researchers look at 5 cohort studies and 6 case-control studies were identified.
- Soy intake possibly decreases the risk of breast cancer among Japanese women.



[Nagata et al. Jpn J Clin Oncol. 2014](#)
Mar;44(3):282-95. doi: 10.1093/jjco/hyt203.
Epub 2014 Jan 22.



Breaking the Soy Myth 3

- Newer meta analysis of 35 studies
- “We found that soy isoflavone intake could lower the risk of breast cancer for both pre- and post-menopausal women in Asian countries.” **About a 41% reduction**
- Women in Western countries, pre- or post-menopausal, there is no clear association between intake of soy isoflavone and breast cancer.
 - Study found weak reductions of about 8%



[Chen et al. PLoS One.](#) 2014 Feb 20;9(2):e89288. doi: 10.1371/journal.pone.0089288. eCollection 2014.

Breaking the Soy Myth 4

- Singapore Chinese Health Study, which included 52,584 Chinese men and women (aged 45-74 y) who were free of diabetes, cardiovascular disease (CVD), and cancer at baseline (1993-1998) and followed through 2011
- Vegetable-, fruit-, and soy-rich (VFS) diet showed up to a 25% reduction in death vs the dim sum- and meat-rich (DSM) dietary pattern



[Odegaard Am J Clin Nutr.](#) 2014 Sep;100(3):877-83. doi:
10.3945/ajcn.114.086124. Epub 2014 Jul 23.

Breaking the Soy Myth 5

- Tufts University: the intake of isoflavones — phytoestrogen found in soy — was related to survival in over 6,200 women with breast cancer followed for almost 10 years
- In estrogen-receptor-negative cancer, the group with the highest isoflavone (soy) intake had a reduction in all causes of death by 21%
- With estrogen-receptor-positive cancer or on hormone therapy, soy had a neutral effect on survival and did **not** increase any adverse outcomes.



[Zhang et al. Cancer.](#) 2017 Jun 1;123(11):2070-2079. doi: 10.1002/cncr.30615. Epub 2017 Mar 6.



Ketogenic Diets

- Noto et al: 272,216 subjects – low carb diet = 30% more death
- Li et al. (Harvard): 2258 women from the Nurses' Health Study and 1840 men from the Health Professional Follow-Up Study who had survived a first heart attack- low carb diet = 33% higher death and 51% higher CVD mortality
- Sjogren et al. 900 elderly Swedish men: Carb restricted diet = 19% more death; 44% for CVD mortality
- Fung et al: 85 168 women (aged 34 to 59 years at baseline) and 44 548 men (aged 40 to 75 years at baseline) without heart disease, cancer, or diabetes. Low carb, high animal diet = 23% higher death; a lower carb veggie diet was somewhat protective



[Noto et al. J Am Heart Assoc.](#) 2014 Sep 22;3(5):e001169. doi: 10.1161/JAHA.114.001169.

[Li et al. J Am Heart Assoc.](#) 2014 Sep 22;3(5):e001169. doi: 10.1161/JAHA.114.001169.

[Sjoren et al. Am J Clin Nutr.](#) 2010 Oct;92(4):967-74. doi: 10.3945/ajcn.2010.29345. Epub 2010 Sep 8.

[Fung et al. Ann Intern Med.](#) 2010 Sep 7;153(5):289-98. doi: 10.7326/0003-4819-153-5-201009070-00003.

The Amazon

- Tsimane, a Bolivian population living a subsistence lifestyle of hunting, gathering, fishing, and farming with few cardiovascular risk factors, but high infectious inflammatory burden.
- “Atherosclerosis can be avoided in most people by achieving a lifetime with very low LDL, low blood pressure, low glucose, normal body-mass index, no smoking, and plenty of physical activity.”
- A high carbohydrate diet of rice, plantain, manioc (a tuber aka cassava) and corn, with a small amount of wild game and fish – plus around six hours’ exercise every day



Kaplan et al. The Lancet: 17 March 2017
[http://thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)30752-3/fulltext?elsca1=tlpr](http://thelancet.com/journals/lancet/article/PIIS0140-6736(17)30752-3/fulltext?elsca1=tlpr)



Alcohol

- 20% less all-cause death for light to moderate use (1-2 per day)
- Light drinkers 3 per week: 26% less CVD
- Moderate drinkers 3-14 per week for men and 3-7 per women: 29% less CVD
- Heavy drinkers: 11% more CVD

[Xi B, et al "Relationship of alcohol consumption to all-cause, cardiovascular, and cancer-related mortality in U.S. adults" J Am Coll Cardiol 2017; DOI: 10.1016/j.jacc.2017.06.054.](#)



Avoid Some Plants?

- Participants aged 20 years and above, who responded to questions on marijuana use during the 2005 US National Health and Nutrition Examination Survey to data from the 2011 public-use linked mortality file of the National Center for Health Statistics, Centers for Disease Control and Prevention.
- Hazard ratios for death from hypertension among marijuana users compared to non-marijuana users:

3.42 x as much death overall

- For each year of marijuana use was 4% more death rate from HTN



Effect of marijuana use on cardiovascular and cerebrovascular mortality: A study using the National Health and Nutrition Examination Survey linked mortality file

Barbara A Yankey, Richard Rothenberg, Sheryl Strasser, Kim Ramsey-White, Ike S Okosun. *European Journal of Preventive Cardiology* Vol 24, Issue 17, pp. 1833 - 1840



Whole Grains and Cancer

- Expert panel from the World Cancer Research Fund International and the American Institute for Cancer Research found strong links between processed and red meat and increased cancer risk.
- 3 servings of whole grains per day, reduce colon cancer risk by 17%.



World Cancer Research Fund International/
American Institute for Cancer Research.
American Institute for Cancer Research.
Published September 7, 2017. Available at:
[http://wcrf.org/sites/default/files/
CUP%20Colorectal%20Report_2017_Digital.p](http://wcrf.org/sites/default/files/CUP%20Colorectal%20Report_2017_Digital.p)



Fiber & Grains in Colorectal Cancer

- Harvard's Nurses' Health Study and Health Professionals Follow-Up Study
- 1,575 participants with colorectal cancer
- For every 5 grams of fiber added to their diets, the risk of dying was reduced by 25% over 8 years over an eight-year follow-up period
- The greatest benefit was seen with grain consumption.



Song M, Wu K, Meyerhardt JA. Fiber intake and survival after colorectal cancer diagnosis. *JAMA Oncol*. Published online November 2, 2017.

Cut the Meat ... Even with Colon Cancer

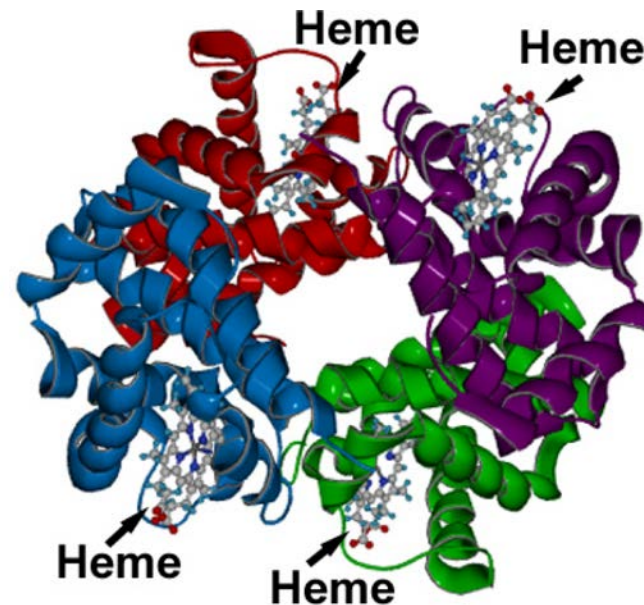
- Diet and lifestyle of 992 stage III colon cancer patients over a 7 years.
- Those with a body mass index between 18.5 and 24.9 kg/m² who exercised and followed a diet high in fruits, vegetables, and whole grains and low in red and processed meats had longer overall survival



Van Blarigan E, Fuchs CS, Niedzwiecki D. (2017, May) American Cancer Society (ACS) Nutrition and Physical Activity Guidelines after colon cancer diagnosis and disease-free (DFS), recurrence-free (RFS), and overall survival (OS) in CALGB 89803 (Alliance). Paper presented at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago, IL

Diabetes & Heme Iron

- 63,257 participants from the Singapore Chinese Health Study
- Those who consumed the most red meat, chicken, and fish had an increased risk for type 2 diabetes by 23, 15, and 7%, respectively, compared with those who consumed the least.
- As heme iron (found in meat) increased, so did the risk for diabetes



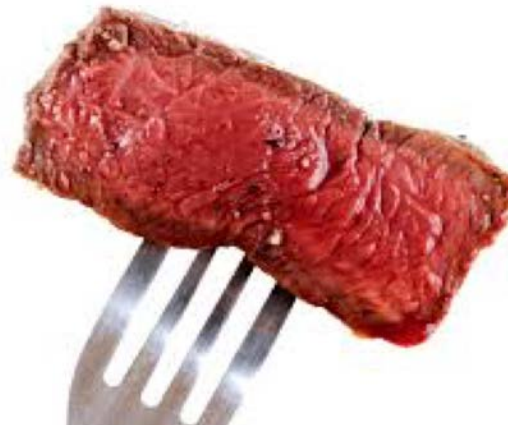
Talaei M, Wang Y, Yuan J, Pan A, Koh W. Meat, dietary heme iron, and risk of type 2 diabetes mellitus: the Singapore Chinese Health Study. *Am J Epidemiol.* 2017;186:824-833.

Even Just One Serving...

- 2,131 participants from the Costa Rica Heart Study who survived a prior heart attack
- Compared with control participants
- One daily serving of red meat raised heart attack risk by 31%

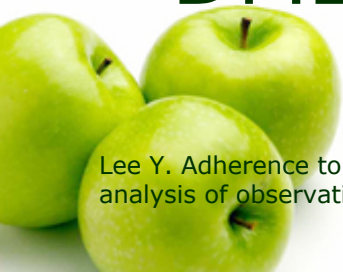


Wang D, Campos H, Baylin A. Red meat intake is positively associated with non-fatal acute myocardial infarction in the Costa Rica Heart Study. *Br J Nutr.* 2017;118:303-311.



Vegetarian Men and DM2

- In the US, 1 in 4 people have DM2
- Meta-analysis of 14 studies
- Men who were vegetarian had 27% lower risk of developing DM2



Lee Y. Adherence to a vegetarian diet and diabetes risk: a systematic review and meta-analysis of observational studies. *Nutrients*. 2017 Jun 14; 9(6)

Start Eating Right From Birth...

- Breastfeeding women drank carrot, beet, vegetable, celery juice daily, starting when baby was 2 weeks old.
- Babies who were exposed to these flavors were more likely to accept cereal made with carrot juice (at 8 months old).
- A relatively brief experience (1 mo) with vegetable flavors in mothers' milk, starting at 0.5 mo postpartum resulted in a faster rate of eating carrot-flavored cereal than that in infants who were exposed during subsequent months or not at all.

I am a Breastfed Baby.



Breast milk is medicine for babies born early. It contains special ingredients not available in formula.



Mennella JA et al. Learning to like vegetables during breastfeeding: a randomized trial of lactating mothers and infants. *Am J Clin Nutr.* 2017 Jul;106(1):67-76. doi: 10.3945/ajcn.116.143982. Epub 2017 May 17.

Can Veganism Help With Eating Disorders?

- Participants (n = 578, 80.4% female) completed an online questionnaire
- Vegans scored significantly lower than omnivores the Eating Disorder Examination - Questionnaire (multivariate $p < 0.001$), a measure of pathological eating behavior.
- Vegans do not differ from omnivores in their eating attitudes and behaviors and have slightly healthier attitudes and behaviors towards food.



[Heiss S et al. *Appetite*. 2017 Nov 1;118:129-135. doi: 10.1016/j.appet.2017.08.001. Epub 2017 Aug 2.](#)

Drink Coffee... Live Longer!

- 185 855 African Americans, Native Hawaiians, Japanese Americans, Latinos, and whites aged 45 to 75 years at recruitment
- Followed via survey from 1993-2012
- Compared with drinking no coffee, coffee consumption was associated with lower total mortality after adjustment for smoking and other potential confounders
- 1 cup = 12% reduction
- 2-3 cups = 18% reduction
- 4 or more cups = 18% reduction



Song-Yi et al. Ann Intern Med. 2017;167(4):228-235.

DOI: 10.7326/M16-2472

Drink Coffee... Live Longer II

- 521 330 persons enrolled in EPIC (European Prospective Investigation into Cancer and Nutrition), 10 countries in Europe
- Follow-up of 16.4 years
- Participants in the highest quartile of coffee consumption had statistically significantly **lower all-cause mortality**
- Men = 12% reduction
- Women = 7% reduction; 22% less CVD mortality, 10% less stroke mortality; though possibly more ovarian ca
- No variation by country



*Gunter et al. Ann Intern
Med. 2017;167(4):236-247.
DOI: 10.7326/M16-2945*



Coffee III

- Using machine learning to analyze data from the long-running Framingham Heart Study, which includes information about what people eat and their cardiovascular health.
- Drinking coffee was associated with decreased risk of developing heart failure by 7% and stroke by 8% with every additional cup of coffee consumed per week compared with non-coffee drinkers.
- Demonstrates an observed association, but does not prove cause and effect.

never
UNDERESTIMATE
THE POWER OF
coffee




Abstract 21081: Coffee Intake Affects Heart Failure and Stroke Survival and is Significant in Predicting Heart Failure and Stroke Risk

Laura Stevens, Carsten Görg and David Kao

Circulation. 2017;136:A21081, originally published November 11, 2017

The potential impact of food taxes and subsidies on cardiovascular disease and diabetes burden and disparities in the United States

José L. Peñalvo , Frederick Cudhea, Renata Micha, Colin D. Rehm, Ashkan Afshin, Laurie Whitsel, Parke Wilde, Tom Gaziano, Jonathan Pearson-Stuttard, Martin O'Flaherty, Simon Capewell and Dariush Mozaffarian

BMC Medicine 2017 15:208

<https://doi.org/10.1186/s12916-017-0971-9> | © The Author(s). 2017

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 [Open Peer Review reports](#)

Abstract

Background

Fiscal interventions are promising strategies to improve diets, reduce cardiovascular disease and diabetes (cardiometabolic diseases; CMD), and address health disparities. The aim of this study is to estimate the impact of specific dietary taxes and subsidies on CMD deaths and disparities in the US.

Pricing

- Researchers modeled reducing prices on things like produce
- Raising prices on sugar sweetened beverages
- Impact:
thousands of lives saved



The potential impact of food taxes and subsidies on cardiovascular disease and diabetes burden and disparities in the United States

• José L. Peñalvo *et al.* *BMC Medicine* 2017;15:208

<https://doi.org/10.1186/s12916-017-0971-9>

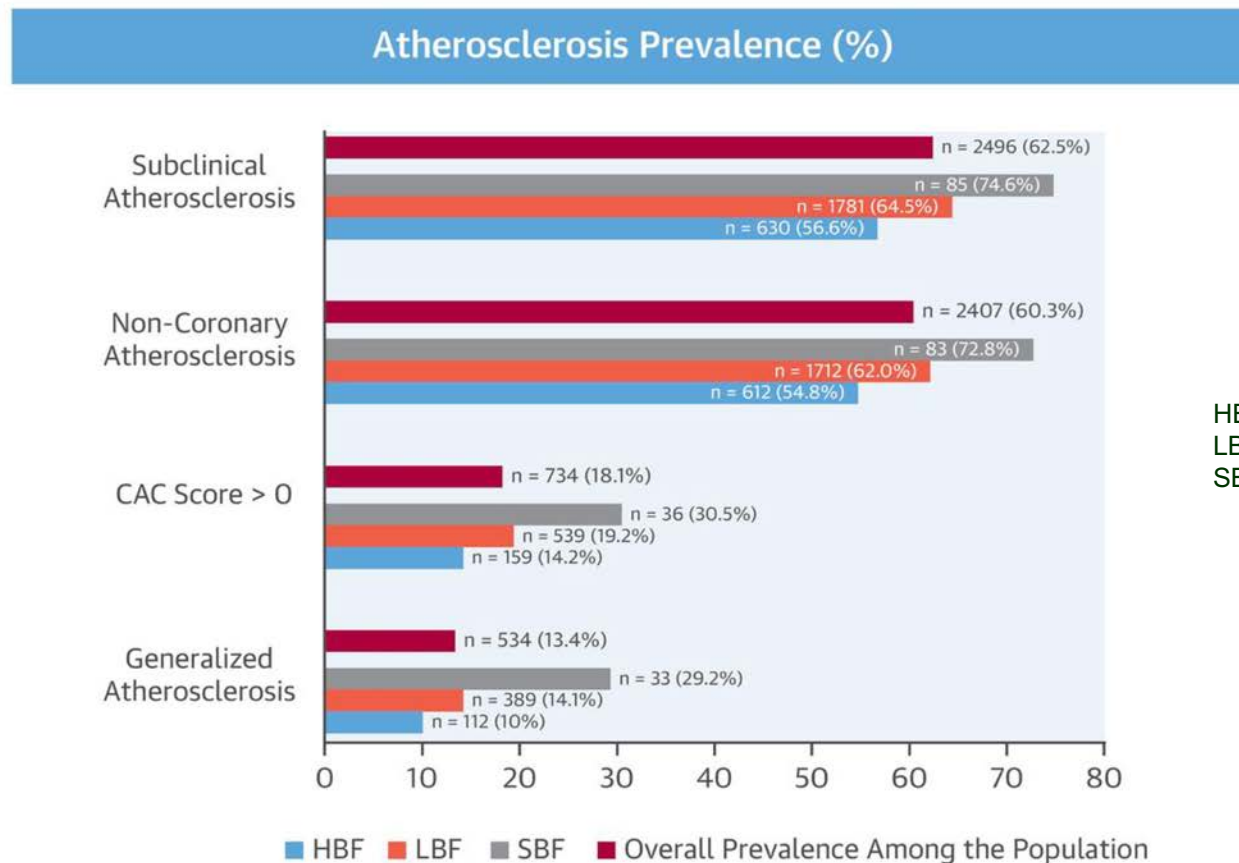
Don't Skip Breakfast

- 4,052 participants in PESA study (Progression of Early Subclinical Atherosclerosis)
- Looked at high vs low energy (> 20% of total daily energy intake vs 5-20%) vs no breakfast
- Independent of the presence of traditional and dietary CV risk factors, skipping breakfast was associated with 2.6x the risk to have generalized atherosclerosis.



Don't Skip Breakfast

CENTRAL ILLUSTRATION: Overall Prevalence of an Atherosclerosis Among PESA Study Participants and According to the Type of Breakfast Consumed



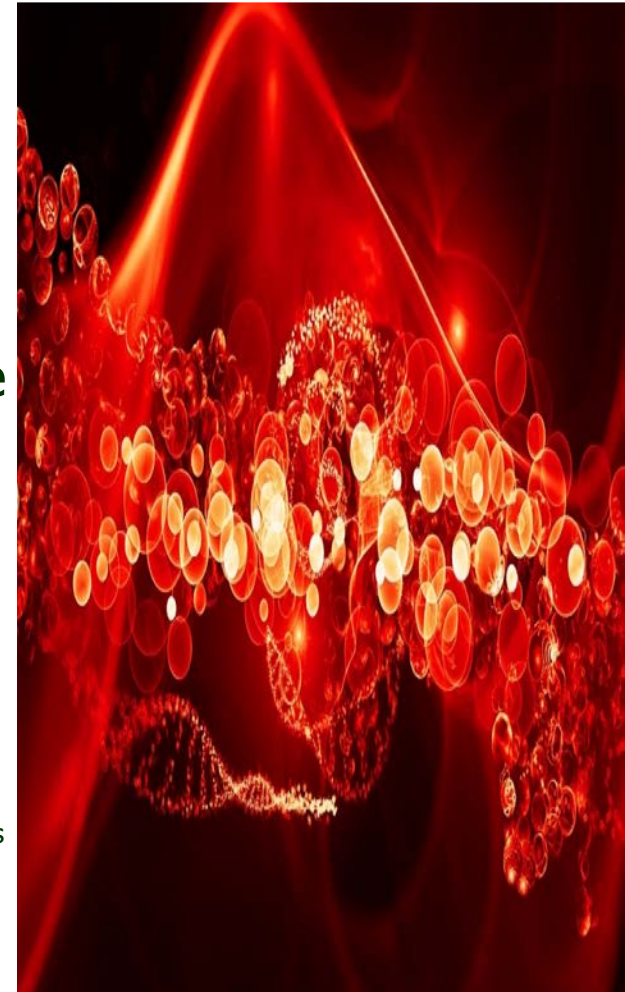
HBF = High Energy Breakfast
LBF = Low Energy Breakfast
SBF = Skipping Breakfast

Vegan Diet Cuts Inflammation

- Compared a vegan diet to the American Heart Association's recommended eating patterns and tracked inflammation and other measurements in 100 heart disease patients.
- Participants received groceries and guidance from a registered dietitian for each diet.
- Vegan diet reduced their inflammation markers by 28%, compared with a 7% decrease in those who followed the AHA diet.

Driggin E, Ganguzza L, Velez de Villa B, et al. Factors associated with participation of patients with coronary artery disease in a randomized study of a vegan versus American Heart Association-recommended diet: interim analysis. Poster presented at: American Heart Association's Scientific Sessions 2017; November 11-15, 2017; Anaheim, CA.

Shah B, Ganguzza L, Slatara J, et al. The effect of a vegan versus AHA DiEt in coronary artery disease (EVADE CAD) trial: Study design and rationale. *Contemp Clin Trials Commun.* 2017;8:90-98



Med Diet: Not in HF?

- Mediterranean Diet in Acute Heart Failure (MEDIT-AHF)
- “The Mediterranean diet (MedDiet) had no effect on long-term mortality in patients with acute heart failure, but it did yield **decreased rates of rehospitalization** during the next year.”
- “no statistically significant difference in survival between adherent and nonadherent patients” at 2.1 years.
- 991 patients, diagnosed with acute heart failure from seven Spanish emergency departments (ED)
- **Maybe a lower fat plant based diet would work?**



Adherence to Mediterranean Diet and All-Cause Mortality After an Episode of Acute Heart Failure

Results of the MEDIT-AHF Study

Òscar Miró DOI: 10.1016/j.jchf.2017.09.020



Don't Forget Exercise

- 15,486 patients from 39 countries with stable CHD
- Doubling exercise volume was associated with lower all-cause mortality (unadjusted hazard ratio [HR]: 0.82; 95% confidence interval [CI]: 0.79 to 0.85; adjusting for covariates, HR: 0.90; 95% CI: 0.87 to 0.93)
- → More is better

“The largest benefits occurred between sedentary patient groups and between those with the highest mortality risk.”

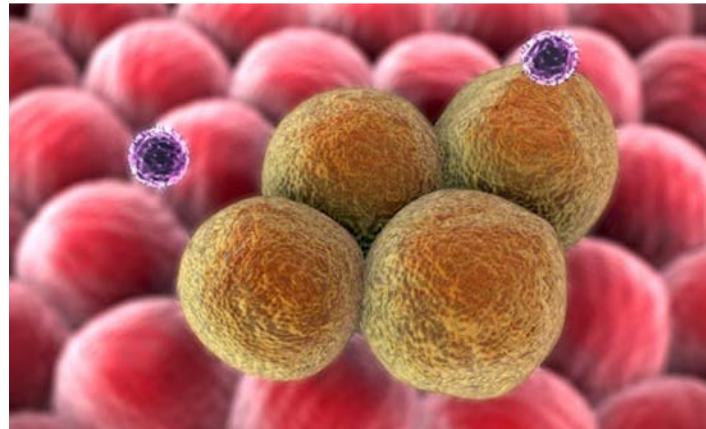


[J Am Coll Cardiol.](#) 2017 Oct 3;70(14):1689-1700. doi: 10.1016/j.jacc.2017.08.017.

Physical Activity and Mortality in Patients With Stable Coronary Heart Disease.

13 Types of Cancer: CDC Report

- Excess body fat increases the risk for 13 different types of cancer
- Overweight and obesity-related cancer rates increased between 2005 and 2014 and accounted for 40% of cancer diagnoses that year.
- Postmenopausal breast, stomach, liver, and ovarian cancers were the most common.



13 Types of Cancer: CDC Report

- “Persons who are overweight or have obesity are nearly twice as likely as are healthy-weight (BMI = 18.5–24.9kg/m²) persons to develop adenocarcinoma of the esophagus and cancers of the gastric cardia, liver, and kidney.”
- “Persons who have obesity are approximately 30% more likely to develop colorectal cancer than are persons with healthy weight.
- Women who are overweight or have obesity are approximately 2-4x as likely as are women with healthy weight to develop endometrial cancer.”

https://www.cdc.gov/mmwr/volumes/66/wr/mm6639e1.htm?s_cid=mm6639e1_e



Nearly Half of Cancer

In the United States in 2014:

- 42.0% of all incident cancers (659,640 of 1,570,975 cancers, excluding nonmelanoma skin cancers)
- 45.1% of cancer deaths (265,150 of 587,521 deaths) were attributable to evaluated risk factors.
- Cigarette smoking accounted for the highest proportion of cancer cases (19.0%; 298,970 cases) and deaths (28.8%; 169,180 deaths), followed by excess body weight (7.8% and 6.5%, respectively) and alcohol intake (5.6% and 4.0%, respectively).
- Lung cancer had the highest number of cancers (184,970 cases) and deaths (132,960 deaths) attributable to evaluated risk factors, followed by colorectal cancer (76,910 cases and 28,290 deaths).



Islami, F., Goding Sauer, A., Miller, K. D., Siegel, R. L., Fedewa, S. A., Jacobs, E. J., McCullough, M. L., Patel, A. V., Ma, J., Soerjomataram, I., Flanders, W. D., Brawley, O. W., Gapstur, S. M. and Jemal, A. (2018), Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. *CA: A Cancer Journal for Clinicians*, 68: 31–54.
doi:10.3322/caac.21440

Colon Cancer

- 262,195 women from the UK Biobank over a 7-year period.
- Those who consumed the most processed meats per day (an average of 20.2 grams per day or less than half the size of a regular hot dog) increased their risk by 21%
- In this study, processed meat was defined as bacon, ham, sausages, meat pies, kebabs, burgers, and chicken nuggets.



Anderson JJ, Darwis NDM, Mackay DF, et al. Red and processed meat consumption and breast cancer: UK Biobank cohort study and meta-analysis. *Eur J Cancer*. 2017;90:73-82.

World Cancer Research Fund International Continuous Update Project (CUP). The associations between food, nutrition and physical activity and the risk of breast cancer. *Syst Lit Rev*. 2015. Available

at: http://www.wcrf.org/sites/default/files/CUP_breast_cancer_SLR_2015_version5.pdf

More on Colon Cancer

- 121,050 participants over 26 years and rated their diets for their inflammatory potential.
- Pro-inflammatory products included processed meats, red meat, organ meats, and sodas.
- Men and women who consumed the most of these products were 44% and 22% more likely to develop colorectal cancer, respectively, compared with those who consumed the least.



Tabung FK, Liu L, Wang W, et al. Association of dietary inflammatory potential with colorectal cancer risk in men and women. *JAMA Oncol*. Published online January 18, 2018.

Diabetes even as Vegetarians

- 1,320,555 participants aged 18 or older
- Followed for two years and tracked diabetes and hypertension incidence rates.
- Adjusted for geographic location and rural versus urban settings, age and sex, education and marital status, and income.
- Results showed high rates (about 8% got HTN and 25% for DM2) overall across age and location.
- Although vegetarian diets are common in India, the intensive use of dairy products and increasing Westernization have led to worsening dietary patterns.

Geldsetzer P, Manne-Goehler J, Theilmann M, et al. Diabetes and hypertension in India: A nationally representative study of 1.3 million adults. *JAMA Intern Med*



Start Earlier

- Study looking at folks between the ages of 2 and 19.
- Reductions of saturated and trans fats intake lowered blood pressure, total cholesterol, and LDL cholesterol, compared with control diets that did not reduce fat intake.
- Results showed no detrimental effects to growth or development due to lower fat intake.
- **These conclusions suggest that low-fat dietary interventions effectively reduce cardiovascular disease risk factors in children and adolescents and may reduce the disease burden later in life.**



Te Morenga L, Montez JM. Health effects of saturated and trans-fatty acid intake in children and adolescents: Systematic review and meta-analysis. *PLoS One*. 2017;12:e0186672.



Diverticulitis

- 51,529 men from the Health Professionals Follow-Up Study.
- 73% drop in risk for diverticulitis among men who ate more fiber, exercised, and ate less than one serving of red meat per day, compared with men who did none of these.

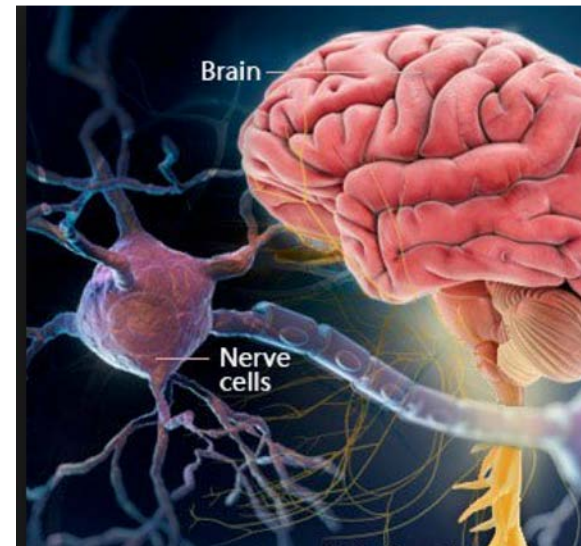
Liu PH, Cao Y, Keeley BR, et al. Adherence to a healthy lifestyle is associated with a lower risk of diverticulitis among men. *Am J Gastroenterol*. Published online November 7, 2017.



Multiple Sclerosis

- 219 participants with pediatric relapsing-remitting MS (RRMS) at 11 MS centers across the United States
- Higher fat intake increased the risk for relapse by 56%
- Every 10% increase in saturated fat intake tripled the risk of relapse.
- Vegetable intake showed a protective effect, with a 50% drop in risk for every one cup of vegetables consumed.

Azary S, Schreiner T, Graves J, et al. Contribution of dietary intake to relapse rate in early paediatric multiple sclerosis. *J Neurol Neurosurg Psychiatry*. Published online October 9, 2017.



Milk Intake and Cognitive Decline

- 13,751 participants of the Atherosclerosis Risk in Communities (ARIC) cohort completed a food frequency questionnaire and three neurocognitive evaluations from 1990 through 2013.
- Milk intake greater than 1 glass/day was associated with greater decline in the global z-score (measuring cognition) over a 20-year period.
- The difference in decline was 0.10 (95% CI: 0.16, 0.03) z-scores, or an additional 10% decline, relative to the group reporting "almost never" consuming milk.

Nutrients. 2017 Oct 17;9(10). pii: E1134. doi: 10.3390/nu9101134.



Eat More K (Potassium)

- Rat model study
- Reduced dietary potassium promoted atherosclerotic vascular calcification and increased aortic stiffness
- Increased dietary potassium attenuated vascular calcification and aortic stiffness.



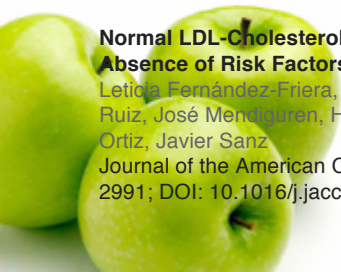
Even Normal LDL May Not Be Protective...

- 1,779 individuals free of risk factors such as smoking, high blood pressure, high fasting glucose, total cholesterol above 240 milligrams per deciliter, LDL-C of 160 mg/dL or greater and high-density lipoprotein cholesterol below 40 mg/dL.
- Participants were 45 years old on average and split evenly between men and women.
- 49.7% of participants showed evidence of subclinical atherosclerosis. Atherosclerosis was assessed by the presence of plaque during a vascular ultrasound or the presence of coronary artery calcium from a noncontrast cardiac CT.

Normal LDL-Cholesterol Levels Are Associated With Subclinical Atherosclerosis in the Absence of Risk Factors

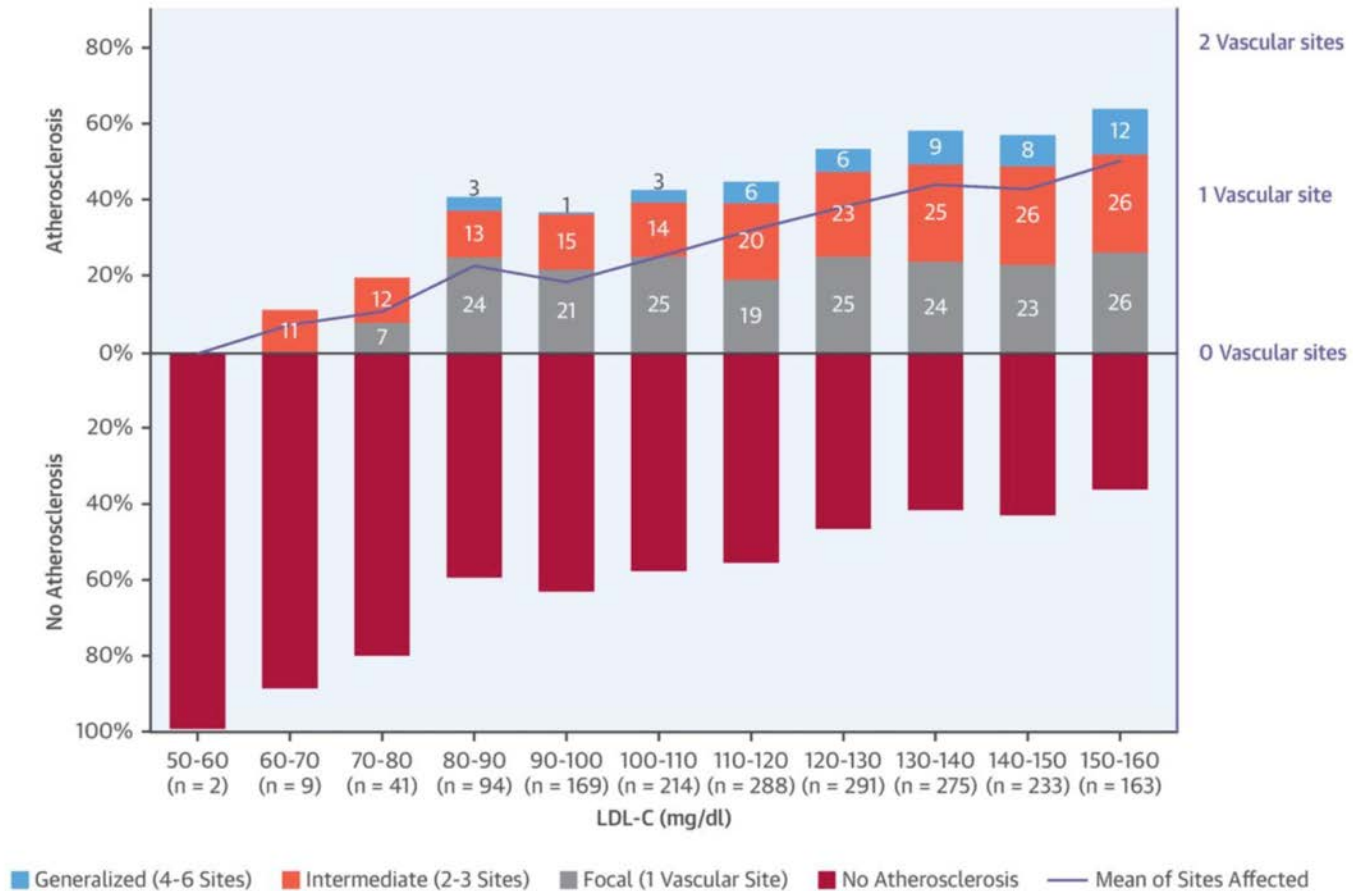
Leticia Fernández-Friera, Valentín Fuster, Beatriz López-Melgar, Belén Oliva, José M. García-Ruiz, José Mendiguren, Héctor Bueno, Stuart Pocock, Borjalbáñez, Antonio Fernández-Ortiz, Javier Sanz

Journal of the American College of Cardiology Dec 2017, 70 (24) 2979-2991; DOI: 10.1016/j.jacc.2017.10.024



Even Normal LDL May Not Be Protective...

CENTRAL ILLUSTRATION: Relation Between LDL-Cholesterol Levels and Atherosclerosis



Normal LDL-Cholesterol Levels Are Associated With Subclinical Atherosclerosis in the Absence of Risk Factors

Leticia Fernández-Friera et al. Journal of the American College of Cardiology Dec 2017, 70 (24) 2979-2991; DOI: 10.1016/j.jacc.2017.10.024



New work in Neu5Gc

CMAH gene: allows for the synthesis of a **sugar called Neu5Gc**, is missing from humans.

Present in red meats, some fish and dairy products. When humans consume an animal with that gene, the body has an immune reaction to the foreign sugar, which can cause inflammation, arthritis, and cancer.

Researchers have analyzed 322 animal genome sequences looking for animals with the presence of active CMAH genes.

- Gene found in many animals, may also protect against malaria and other pathogens

“Finding where and when the gene gets turned off is critical in determining which species are most likely to have the toxic sugar Neu5Gc”



Neu5Ac hydroxylase (CMAH), the enzyme synthesizing the pro-inflammatory human xeno-antigen Neu5Gc. *Genome Biology and Evolution*, December 2017 DOI: [10.1093/gbe/evx251](https://doi.org/10.1093/gbe/evx251)
<https://www.sciencedaily.com/releases/2017/12/171213220119.htm>



Prostate Cancer

- 1,334 participants from the Cancer of the Prostate Strategic Urologic Research Endeavor
- Consuming more than 4 servings of whole milk per week increased risk for recurrence by 73%, compared to those who consumed fewer or no servings of milk.
- This increased risk rose threefold in men with high BMIs.



Tat D, Kenfield SA, Cowan JE, et al. Milk and other dairy foods in relation to prostate cancer recurrence: Data from the cancer of the prostate strategic urologic research endeavor (CaPSURE™). *Prostate*. 2018;78:32-39.



Swapping in Plants

- Substituting 1 to 2 servings of animal protein with plant protein
- 112 randomized controlled trials that included 5774 adult participants with and without hyperlipidemia.
- Overall, substituting animal protein with plant protein was associated with modest decreases in LDL-C by 0.16 mmol/L, non-HDL-C by 0.18 mmol/L, and Apo-B by 0.05 g/L.
- “These findings present an opportunity for patients, clinicians, and guidelines to exploit the lipid-lowering benefits of a sustainable plant-based dietary strategy that is associated with improved overall health outcomes,” the researchers concluded.



Li SS, Mejia SB, Lytvyn L, et al. Effect of plant protein on blood lipids: a systematic review and meta-analysis of randomized controlled trials [published online December 20, 2017]. *J Am Heart Assoc.* <https://doi.org/10.1161/JAHA.117.006659>.

PURE Exercise...

- 130,843 participants ages 35-70 from 17 countries surveyed
- Follow up visits every 3 years, for about 7 years
- 30 minutes x 5 days/week
- Prevents 1 in 12 deaths
- And 1 in 20 cases of CVD worldwide
- 150/mins week =
3.8% vs 5.2% CVD
4.2% vs 6.4% mortality



Scott A Lear, Weihong Hu, Sumathy Rangarajan, Danijela Gasevic, Darryl Leong, Romaina Iqbal, Amparo Casanova, Sumathi Swaminathan, R M Anjana, Rajesh Kumar, Annika Rosengren, Li Wei, Wang Yang, Wang Chuangshi, Liu Huaxing, Sanjeev Nair, Rafael Diaz, Hany Swidon, Rajeev Gupta, Noushin Mohammadifard, Patricio Lopez-Jaramillo, Aytekin Oguz, Katarzyna Zatonska, Pamela Seron, Alvaro Avezum, Paul Poirier, Koon Teo, Salim Yusuf. **The effect of physical activity on mortality and cardiovascular disease in 130 000 people from 17 high-income, middle-income, and low-income countries: the PURE study.** *The Lancet*. 2017; DOI: [10.1016/S0140-6736\(17\)31634-3](https://doi.org/10.1016/S0140-6736(17)31634-3)

Lower BP Is "In"

The Washington Post

Democracy Dies in Darkness

Blood pressure of 130 is the new 'high,' according to first update of guidelines in 14 years

By Lenny Bernstein and Ariana Eunjung Cha November 13, 2017 [Email the author](#)



The American Heart Association, the American College of Cardiology and nine other groups redefined high blood pressure on Nov. 13. (Melissa Macays/The Washington Post)

Leading heart health experts tightened the guidelines for high blood pressure Monday, a change that will sharply increase the number of U.S. adults considered hypertensive in the hope that they,



Congestive Heart Failure

- AHA Scientific sessions 2017
- 15,569 participants from the REGARDS cohort (Reasons for Geographic and Racial Differences in Stroke)
- Follow-up was 2892 days = ~ 8 years
- 300 participants experienced incident heart failure hospitalizations.
- The lowest risk for heart failure (42% decrease) was associated with an adherence to the plant-based dietary pattern.
- Authors said that “Eating a diet of mostly dark green leafy plants, fruits, beans, whole grains, and fish, while limiting processed meats, saturated fats, trans fats, refined carbohydrates and foods high in added sugars is a heart-healthy lifestyle and may specifically help prevent heart failure”



Lara KM, Levitan EB, Guitterrez OM, et al. Dietary patterns and incident heart failure in adults with no known coronary disease or heart failure. Presented at: American Heart Association 2017 Scientific Sessions; November 11-15, 2017; Anaheim, California. Abstract M2081.

Another Reason

Bloomberg the Company & Its Products | Bloomberg Anywhere Remote Login | Bloomberg Terminal Demo Request

B Home

Bloomberg Businessweek



December 29, 2017, 2:00 AM MST

America's Worst Graveyard Shift Is Grinding Up Workers

Cleanup at the slaughterhouse is as dangerous as it is repulsive, and the immigrants who do the work are under pressure to complete it faster than ever.



Another Reason

“Sanitation workers face some of the harshest and most dangerous conditions in American industry, and there’s no outcry because they’re largely low-paid immigrants hidden away on the graveyard shift”



The Guardian view Columnists Letters Opinion videos Cartoons

Environment Opinion

Big meat and big dairy's climate emissions put Exxon Mobil to shame

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It is time to stop the dairy and meat giants from destroying the

Did you know that three meat companies - JBS, Cargill and Tyson - are estimated to have emitted more greenhouse gases last year than all of France and nearly as much as some of the biggest oil companies like Exxon, BP and Shell?



▲ 'Solutions exist; they just need to be urgently implemented.' Photograph: Alamy

Did you know that three meat companies - JBS, Cargill and Tyson - are estimated to have emitted more greenhouse gases last year than all of France and nearly as much as some of the biggest oil companies like Exxon, BP and Shell?

Few meat and dairy companies calculate or publish their climate emissions. So for



We're Talking About Hearts

- But What's Love Got to Do With It?
- Improving relationships were associated with
 - lower levels of low-density lipoprotein
 - reduction of body mass index (-1.07 kg/m^2 , 95% CI -1.73 to -0.42) compared with consistently good relationships
 - total cholesterol
 - and diastolic blood pressure
- Deteriorating relationships were associated with worsening diastolic blood pressure



Bennett-Britton I, Teyhan A, Macleod J, *et al*
Changes in marital quality over 6 years and its association with cardiovascular disease risk factors in men:
findings from the ALSPAC prospective cohort study
J Epidemiol Community Health Published Online First: 09 October 2017. doi: 10.1136/jech-2017-209178

We're Missing the Boat

- Each year, about 790,000 U.S. adults have heart attacks, of which 210,000 are repeat heart attacks
- CDC: Only 1 in 3 heart attack survivors in the USA goes for outpatient cardiac rehabilitation.



U.S. Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, Aug. 25, 2017



Intensive Cardiac Rehabilitation

National Jewish Health and Saint Joseph Hospital are working together to help patients with severe heart disease improve or reverse their health through our Intensive Cardiac Rehabilitation program based on Ornish Lifestyle Medicine™.

Ornish Lifestyle Medicine is backed by the results of more than 35 years of [scientific research](#) to reverse the progression of heart disease.

Now Enrolling

February 7, 2018

Scientifically Proven to Reverse Heart Disease

99%

of patients stopped or reversed their heart disease after 5 years

40%

reduction in LDL cholesterol in the first year without cholesterol lowering drugs

400%

improvement in coronary blood flow

91%

of patients adhere to the program

Lifestyle Change Coaching

- Activity/Exercise supervised by certified exercise physiologists
- Nutrition counseling from a registered dietitian
- Stress management training overseen by a certified yoga and mindfulness instructor
- Emotional support groups led by a psychologist or social worker



Program Details

- 9-week program, 4 hours per session





Love

- People with cardiovascular disease who were not married – including those who were divorced, separated, widowed or never married – had 24% higher rates of death from any cause vs those who were married
- Approximately 6,000 individuals undergoing cardiac catheterization for coronary artery disease (CAD had a higher risk of all-cause mortality (hazard ratio 1.24, 95% CI 1.06 to 1.47, cardiovascular death (HR 1.45, 95% CI 1.18 to 1.78), and cardiovascular death or myocardial infarction (HR 1.52, 95% CI 1.27 to 1.83) **if unmarried**
- Also increases in cardiovascular death or MI...for patients who were **divorced or separated** (HR 1.41, 95% CI 1.10 to 1.81), **widowed** (HR 1.71, 95% CI 1.32 to 2.20), **or never married** (HR 1.40, 95% CI 0.97 to 2.03) compared with married patients



Marital Status and Outcomes in Patients With Cardiovascular Disease
Schultz, et al. <https://doi.org/10.1161/JAHA.117.005890> Journal of the
American Heart Association. 2017;6:e005890 Originally published December
20, 2017

ADA: Plant Based Diets: A-OK

- 2018 Standards of Medical Care in Diabetes
- The American Diabetes Association continues to say that a plant-based eating pattern is an effective option for type 2 diabetes management and encourages clinicians to always include education on lifestyle management.



American Diabetes Association. Standards of Medical Care in Diabetes - 2018. *Diabetes Care*. 2018;41(Suppl 1):S1-S167.

5 REASONS WHY VEGANS SHOULD GET A LOWER RATE ON LIFE INSURANCE

GET FREE QUOTE



VEGANS & HYPERTENSION

According to a 2012 study published by *Public Health Nutrition Journal*, vegans have a 63% lower risk of hypertension than non vegetarians.

[Learn More](#)



Decreased Risk of Hypertension in Vegans Relative to meat eaters



VEGANS & CANCER



Veganism has grown 500% since 2014 in the US

June 25, 2017



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Veganism is growing rapidly around and the world, and now we know that **six percent of Americans identify as vegan** - up from only one percent in 2014 according to a highly regarded industry report released this month.

The [report](#), titled *Top Trends in Prepared Foods in 2017* was prepared by research company GlobalData and shows the explosion in veganism over the last 3 years. It cites a growing awareness of the impact of meat consumption amongst consumers who are increasingly looking for more ethically produced and environmentally sustainable foods.

Hospitals in Maine work to offer healthier menu options

Processed meats and soda get the ax, while whole grains and beans get the thumbs up.

<https://www.pressherald.com/2017/11/29/in-maine-a-move-to-make-hospital-food-well-healthy/>

BY **AVERY YALE KAMILA**

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BROWSE MORE IN FOOD

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Vegan Kitchen: All I want for Christmas is some vegan fast food



Maine hotels include vegans in the Thanksgiving feast



Vegan grain bowls gain popularity in Maine



At the Common Ground fair in Unity, vegans have plenty of options for eating and learning



15 minute **ish** Life*

Schools push lifestyle medicine to boost chronic-disease prevention

FEB 02, 2018



Sara Berg
Senior Staff Writer
AMA Wire
[@SaraTheIceBerg](#)

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For all that medical students, residents and physicians learn or know about advances in pharmaceuticals, diagnostics and precision medicine that can improve patient outcomes, it is what happens in patients' lives where they live, work and play that too often gets passed over—across the medical educational continuum. That is the case even though lifestyle choices can have the biggest impact on prevention and management of chronic diseases such as hypertension and diabetes.

To address this shortcoming, the House of Delegates recently adopted a resolution that focuses on arming physicians with information on healthy lifestyles to pass along to patients. Proposed by the [American College of Preventive Medicine](#)

(ACPM), the resolution calls for the AMA to support policies and mechanisms that incentivize or provide funding for inclusion of lifestyle medicine education and the social determinants of health in undergraduate, graduate and continuing medical education.

Chile is Fighting Hard With Taxes, Laws

<https://www.nytimes.com/2018/02/07/health/obesity-chile-sugar-regulations.html>

In Sweeping War on Obesity, Chile Slays Tony the Tiger

New regulations, which corporate interests delayed for almost a decade, require explicit labeling and limit the marketing of sugary foods to children.

Leer en español

Take Culinary Medicine Courses in Medical School

Experts say that the prevalence of heart disease is one reason to study food preparation.



By [Ilana Kowarski](#), Reporter | Feb. 12, 2018, at 9:30 a.m.



<https://www.usnews.com/education/best-graduate-schools/top-medical-schools/articles/2018-02-12/take-culinary-medicine-courses-in-medical-school>



In culinary medicine courses, medical students typically get hands-on cooking experience so they can prepare healthy meals and provide food suggestions to patients. (Getty Images)

Due to a growing awareness of the impact of nutrition on health, some [medical schools](#) are introducing elective courses in [culinary medicine](#), an emerging field that focuses on providing evidence-based food recommendations to patients.

Culinary medicine courses may be taught by a faculty team including a physician, chef and dietitian. These classes typically allow medical students to gain hands-on cooking experience so that they can learn how to prepare meals that are consistent with the

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Low fat, 100% whole grain, minimally processed, whole food, plant-based diet



Geniuses Agree...

“Nothing will benefit human health and increase our chances of survival for life on Earth as much as the evolution to a vegetarian diet.” – Albert Einstein



Convinced?

- Forks Over Knives
- The China Study
- The Starch Solution
- Diet for a New America
- Planeat
- Eating You Alive
- What the Health
- Earthlings

