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BOSTON SUNDAY HERALD

PRESIDENT SUFFERS HEART ATTACK

In Oxygen Tent, But Condition Is 'Good'

WHAT'S IN STORE? EFFECT ON '56 WEIGHED

BY JAMES H. HARRIS

WASHINGTON, Jan. 31 (AP)—President Dwight D. Eisenhower suffered a heart attack today, according to a White House spokesman. The president is in an oxygen tent at the Walter Reed Army Medical Center in Washington.

Lines Now Forming For Battle of '56

As the president's condition improves, the political battle for the 1956 election is already being waged. The Republican Party is expected to nominate Eisenhower for a second term, while the Democrats are expected to nominate Adlai Stevenson.

How Many Seats Forged Main GOP

The Republican Party is expected to win a majority of seats in the House of Representatives in the 1956 election. The party is expected to win 250 or more seats, while the Democrats are expected to win 150 or more seats.



Dr. Paul White Flies to Denver

Dr. Paul White, a leading heart specialist, is expected to fly to Denver today to consult with the medical team treating the president. Dr. White is a member of the American Heart Association and has been instrumental in the development of new heart treatments.

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THE
HEART
HEALERS

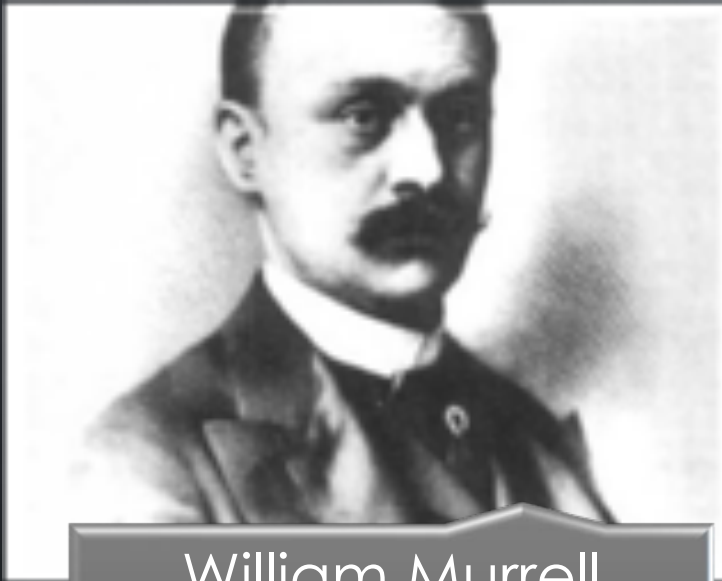


*The Misfits, Mavericks and Rebels
Who Created the Greatest Medical
Breakthroughs of Our Lives*

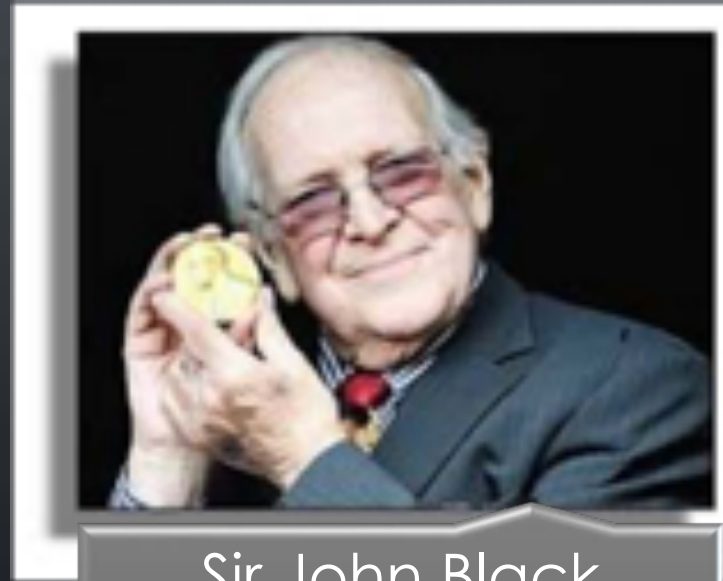
JAMES S. FORRESTER, M.D.

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PIONEERS IN PHARMACEUTICALS



William Murrell
Nitroglycerin



Sir John Black
Beta Blockers



Akira Endo
Statins

PIONEERS IN REVASCULARIZATION



Sones
Cath

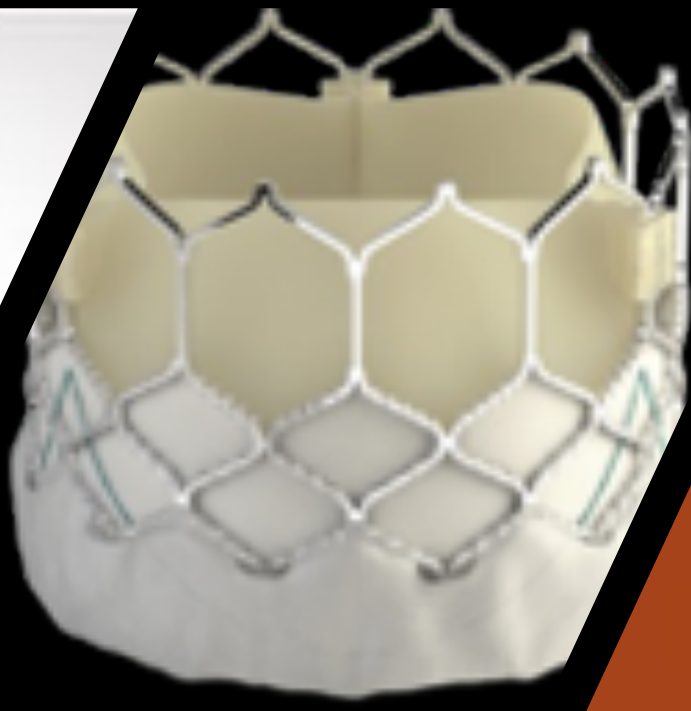
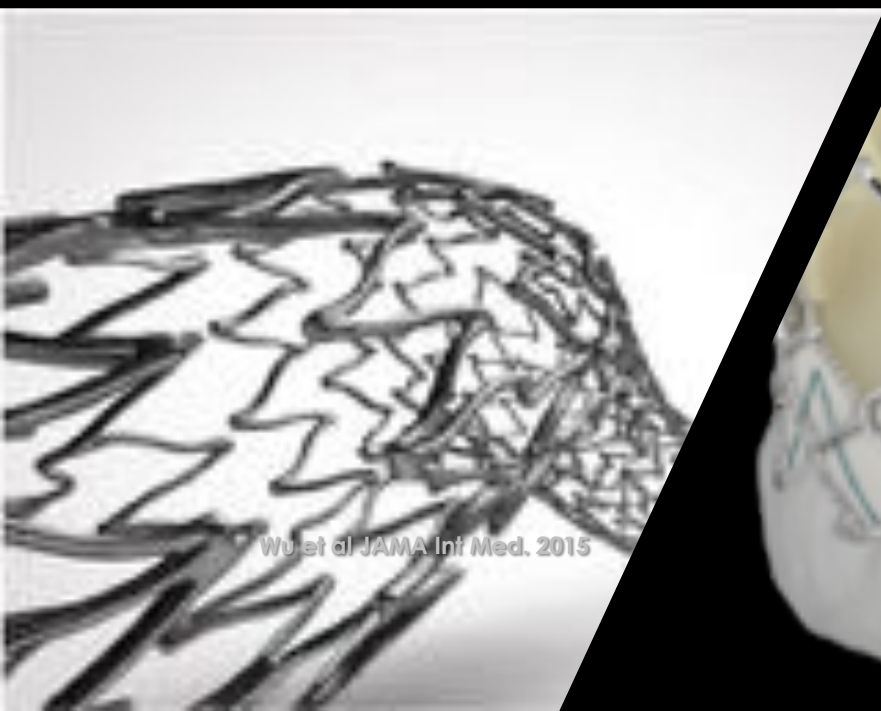
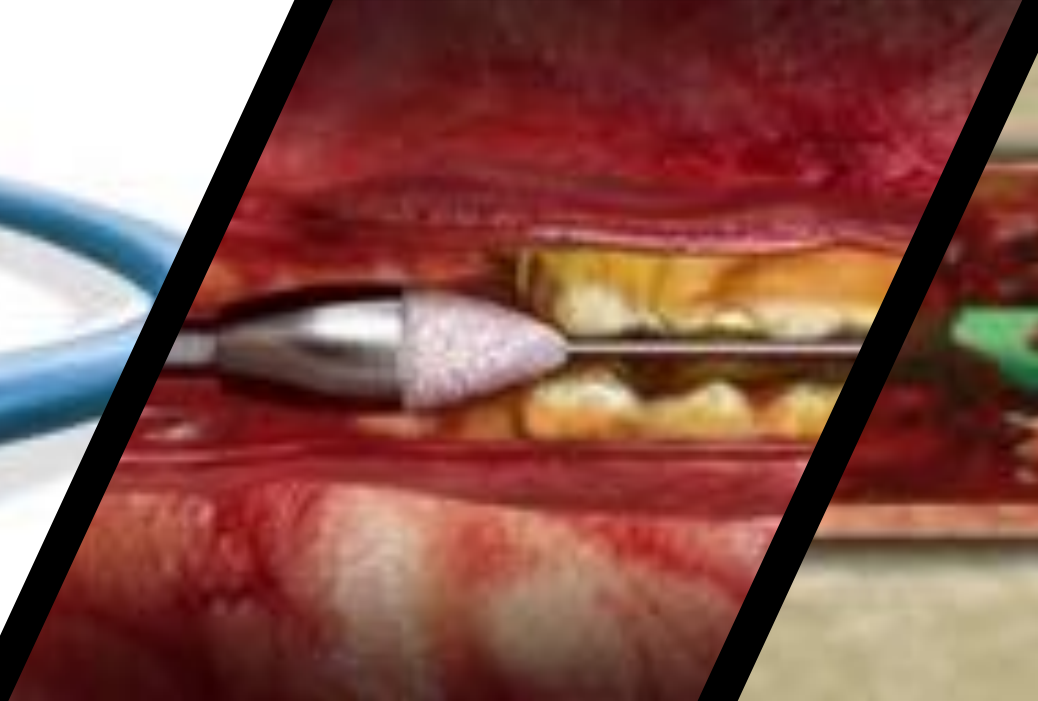


Gruentzig
PCI



Favoloro
CABG





***TREATMENT FOR ACUTE
MYOCARDIAL INFARCTION
DOESN'T EQUAL TREATMENT
FOR STABLE ISCHEMIC HEART
DISEASE***

ASPIRIN IN SIHD

- ARRIVE TRIAL REVEALED NO BENEFIT IN PATIENTS WITH MODERATE RISK
- ASCEND REVEALED BOTH A BENEFIT AND HEIGHTENED RISK BALANCE IN DIABETICS

ASPIRIN IN SIHD

- **ASPREE** MEDIAN FOLLOW-UP OF 4.7 YEARS DID NOT REDUCE THE RISK OF FATAL CORONARY HEART DISEASE, NONFATAL MI, FATAL OR NONFATAL STROKE, OR HOSPITALIZATION FOR HEART FAILURE. WHEN COMPARED WITH PLACEBO, HOWEVER, ASPIRIN WAS ASSOCIATED WITH A RELATIVE 38% INCREASED RISK OF MAJOR HEMORRHAGE AND 14% INCREASED RISK OF ALL-CAUSE MORTALITY.

ASPIRIN IN SIHD

- THE USPSTF CONCLUDES WITH MODERATE CERTAINTY THAT ASPIRIN USE FOR THE PRIMARY PREVENTION OF CVD EVENTS IN ADULTS AGED 40 TO 59 YEARS WHO HAVE A 10% OR GREATER 10-YEAR CVD RISK HAS A **SMALL NET BENEFIT**. THE USPSTF CONCLUDES WITH MODERATE CERTAINTY THAT INITIATING ASPIRIN USE FOR THE PRIMARY PREVENTION OF CVD EVENTS IN ADULTS 60 YEARS OR OLDER HAS **NO NET BENEFIT**.

BETA BLOCKERS IN SIHD

The background of the slide features a dark, muted green color. In the center, there is a large, semi-transparent illustration of a white pill bottle with a red cap. Two stylized human figures, one on the left and one on the right, are depicted in a running or sprinting pose, moving from left to right across the frame. The figures are rendered in a simple, blocky style with light-colored shirts and dark pants. The overall composition suggests a medical or pharmaceutical theme, specifically related to the use of beta-blockers in a certain clinical context.

- DO NOT DECREASE INCIDENCE OF MYOCARDIAL INFARCTION
- DO NOT PROLONG SURVIVAL

BETA BLOCKERS IN SIHD

- BEYOND 3 YEARS, B-BLOCKER THERAPY ONLY OBTAINS A CLASS IIA RECOMMENDATION. FURTHERMORE, FOR PATIENTS WITHOUT A HISTORY OF ACS, B-BLOCKERS HAVE A CLASS IIB RECOMMENDATION. THIS STUDY CONFIRMS THAT LONG-TERM B-BLOCKER USE IS NOT NECESSARILY BENEFICIAL.

STATIN THERAPY IN SIHD

- 50% PERCENT OF HEART ATTACK PATIENTS FELL WITHIN TARGETS FOR LDL CHOLESTEROL
- $NNT = 108$ (7.5% RISK)
- RISK OF DIABETES
- RISK OF HEPATOTOXICITY
- RISK OF MUSCLE SYMPTOMS

BARI 2D TRIAL

AMONG PATIENTS WITH DIABETES AND STABLE CORONARY ARTERY DISEASE, A STRATEGY OF REVASCULARIZATION BY **PCI OR CABG FAILED TO DEMONSTRATE SUPERIORITY TO MEDICAL THERAPY** OVER A MEAN OF 5.3 YEARS

COURAGE TRIAL




“AS AN INITIAL MANAGEMENT STRATEGY IN PATIENTS WITH STABLE CORONARY ARTERY DISEASE, **PCI DID NOT REDUCE THE RISK OF DEATH, MYOCARDIAL INFARCTION, OR OTHER MAJOR CARDIOVASCULAR EVENTS** WHEN ADDED TO OPTIMAL MEDICAL THERAPY.....”

INITIAL CORONARY STENT IMPLANTATION WITH MEDICAL THERAPY VS MEDICAL THERAPY ALONE FOR SIHD

METANALYSIS OF 8 TRIALS AND OVER 7000 PATIENTS INITIAL STENT IMPLANTATION FOR STABLE CAD SHOWED **NO EVIDENCE OF BENEFIT** COMPARED WITH INITIAL MEDICAL THERAPY FOR PREVENTION OF DEATH, NONFATAL MI, UNPLANNED REVASCULARIZATION, OR ANGINA.

ORBITA

FIRST RANDOMIZED SHAM PROCEDURE TRIAL

-  NO IMPROVEMENT IN SYMPTOMS
-  IMPROVEMENT IN QUALITY OF LIFE
-  NO IMPROVEMENT IN EXERCISE TIME

PCI IN SIHD

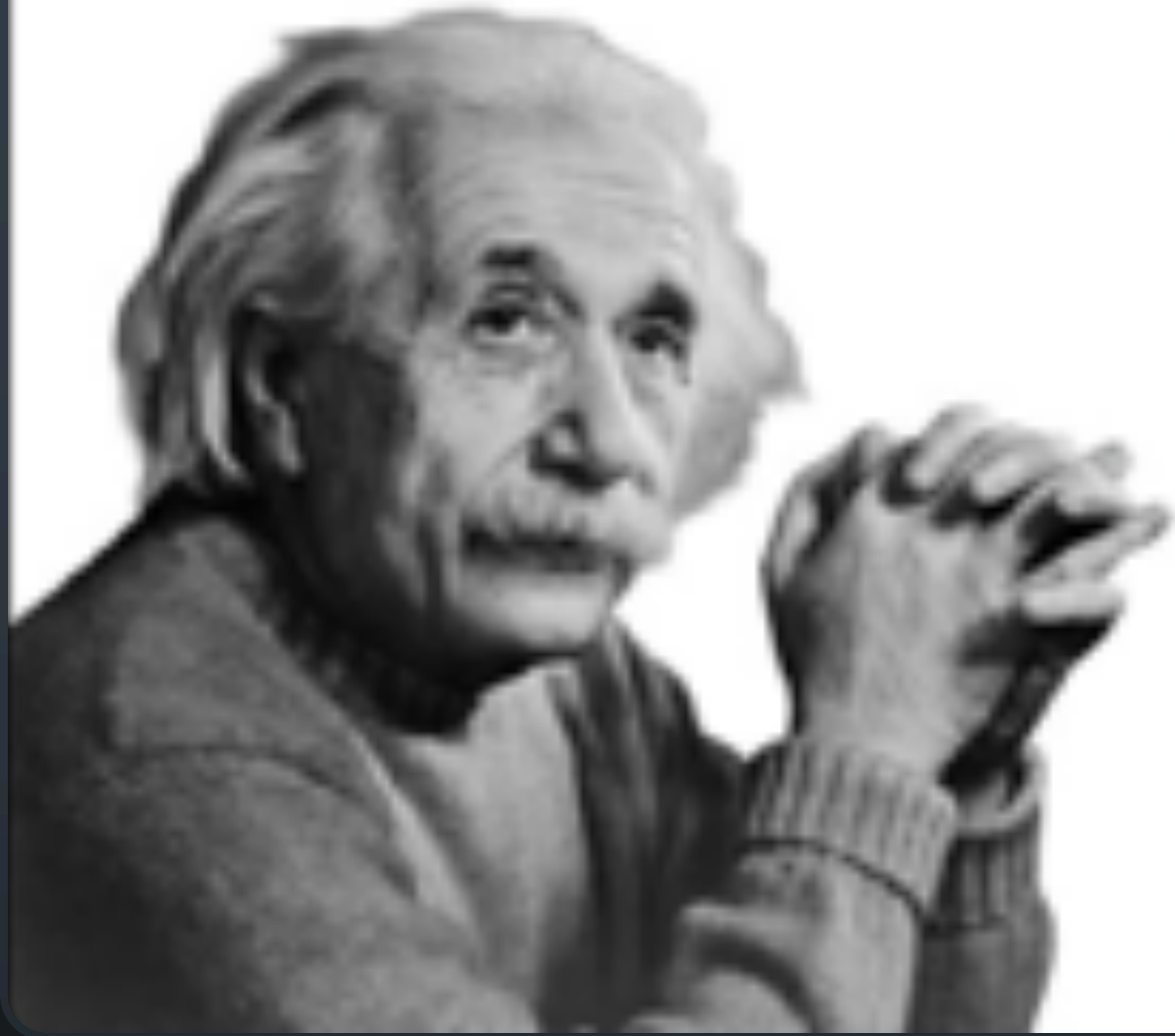


💔 PCI reduces the incidence of angina.

💔 PCI has not been demonstrated to improve survival in SIHD patients.

💔 PCI may increase the short-term risk of MI.

💔 PCI does not lower the long-term risk of MI.



Insanity: Doing
the same thing
over and over
again and
expecting
different
results.

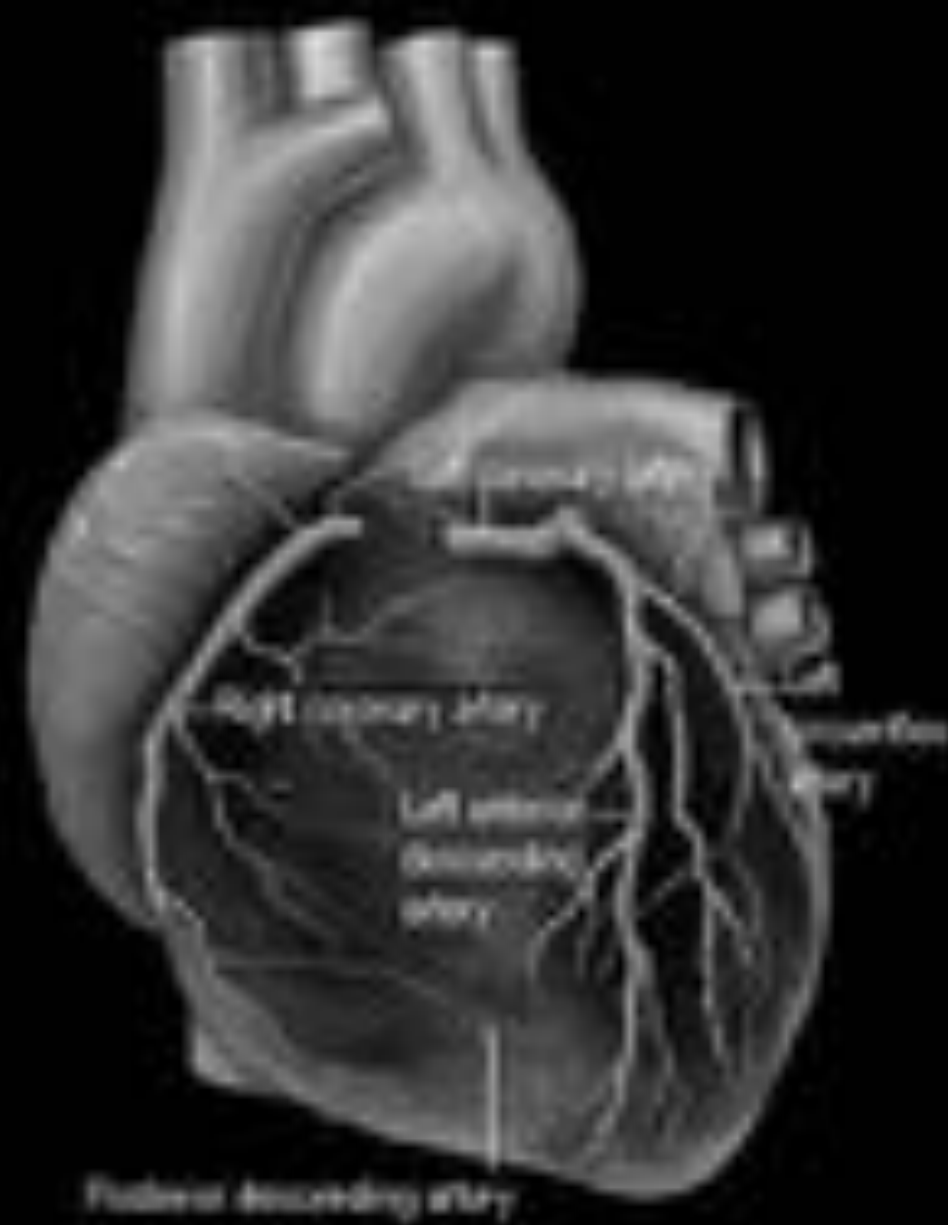
Revascularization to Improve Symptoms

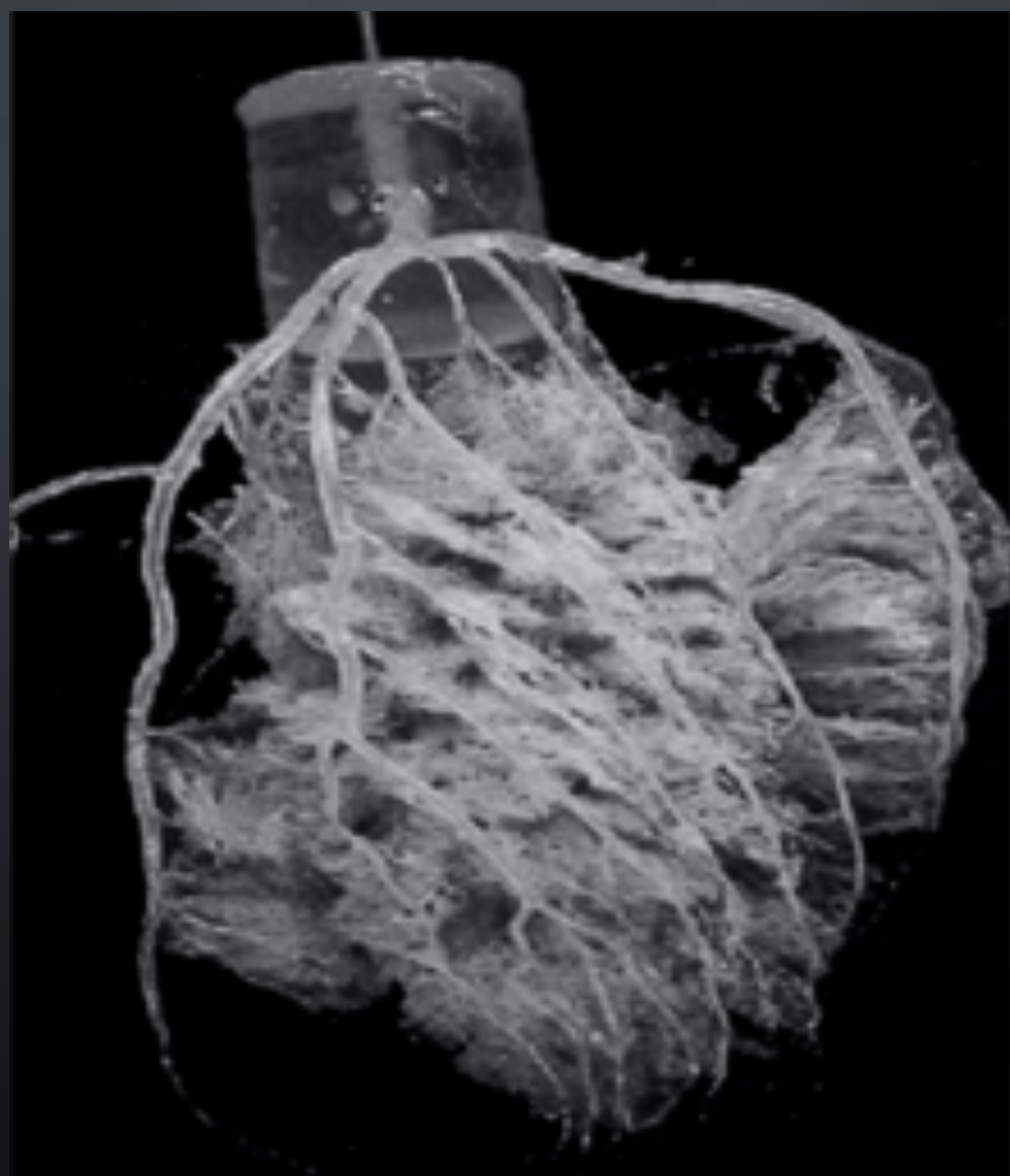
Clinical Setting	ICR	ICR
>1 significant stenoses amenable to revascularization and unacceptable angina despite GDMT	1-CABG 2-PCI	A
>1 significant stenoses and unacceptable angina in whom GDMT cannot be implemented because of medication contraindications, adverse effects, or patient preferences	1a-CABG 1a-PCI	C
Previous CABG with >1 significant stenoses associated with ischemia and unacceptable angina despite GDMT	1a-PCI 1b-CABG	C
Complex 3-vessel CAD (e.g., SYNTAX score >32) with or without involvement of the proximal LAD artery and a good candidate for CABG	1a-CABG preferred over PCI	B
Stable ischemic myocardium that is perfused by coronary arteries that are not amenable to grafting	1b-TBR as an adjunct to CABG	B
No anatomic or physiological criteria for revascularization	1c CABG 1c CABG-PCI	C

Anatomic (≥50% LM or ≥70% non-LM CAD) or physiological (FFR ≤0.80) coronary stenosis

Key Messages S4D Guidelines Update 2014

1. A lack of evidence should not be used as justification for not providing treatment.
2. Extensive revascularisation is not supported with current evidence.
3. A lack of evidence should not be used as justification for not providing treatment.
4. Monitor progression of disease, complications and adherence.
5. Exercise and imaging studies should generally be repeated only when there is a change in clinical status or anatomy.





There comes a point where we need to
stop just pulling people out of the river.

We need to go upstream & find out why
they're falling in.

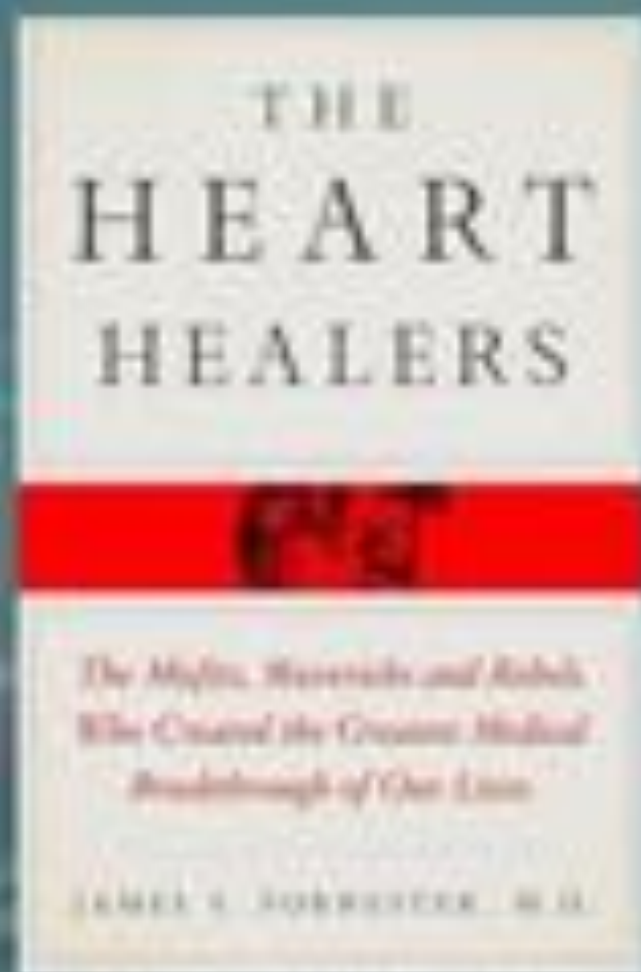
Desmond Tutu



The Forgotten History





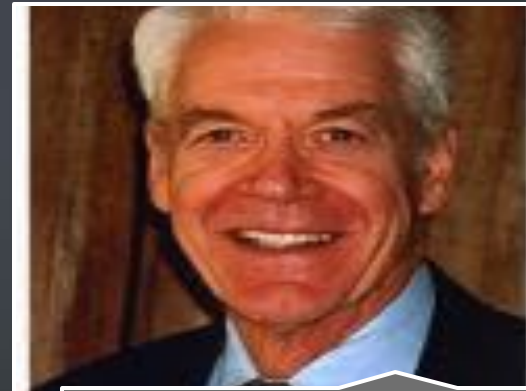




Nathan Pritikin



Dean Ornish



Caldwell Esselstyn



T. Colin Campbell



John McDougall



Neil Barnard

Heart Disease

A conceptual diagram where a tree's canopy is composed of various diseases and its roots are composed of lifestyle factors. The canopy includes Heart Disease, Cancer, Diabetes Mellitus, Obesity, Hypertension, Hyperlipidemia, Autoimmune, Stroke, Allergies, and Endothelial Damage. The roots include Endothelial Damage, Poor Sleep, Dehydration, Stress, and Poor Relationships. The Standard American Diet is shown as the soil at the base.

Cancer

Diabetes Mellitus

Obesity

Hypertension

Hyperlipidemia

Autoimmune

Stroke

Allergies

Endothelial Damage

Poor
Sleep

Dehydration

Stress

Poor Relationships

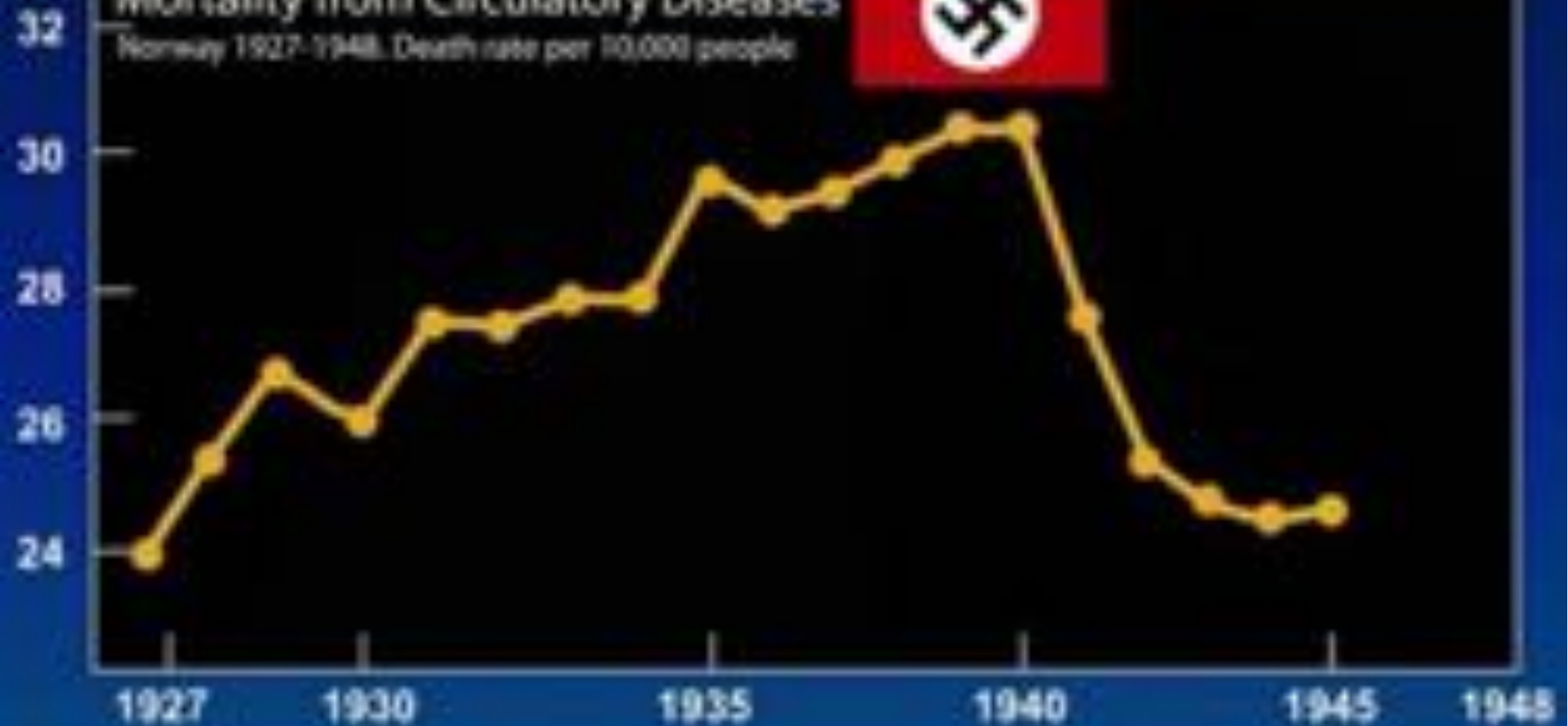
Standard American Diet



1955

Mortality from Circulatory Diseases

Norway 1927-1948. Death rate per 10,000 people



The Canadian Guide to Health Through Automatic Weight Control, Modern Nutritional Supplements and Low-Fat Diet

The LOW-FAT WAY to HEALTH and LONGER LIFE

by Lester M. Morrison, M.D.

The Principles and Program Set forth in This Book
are Wholeheartedly Endorsed and Recommended by
Such Distinguished Medical Authorities As:

JOHN C. HARRIS, M.D., F.R.C.P.
CHIEF OF MEDICAL STAFF,
AND THE CHIEF MEDICAL OFFICER,
HOSPITAL FOR THE AGED, TORONTO

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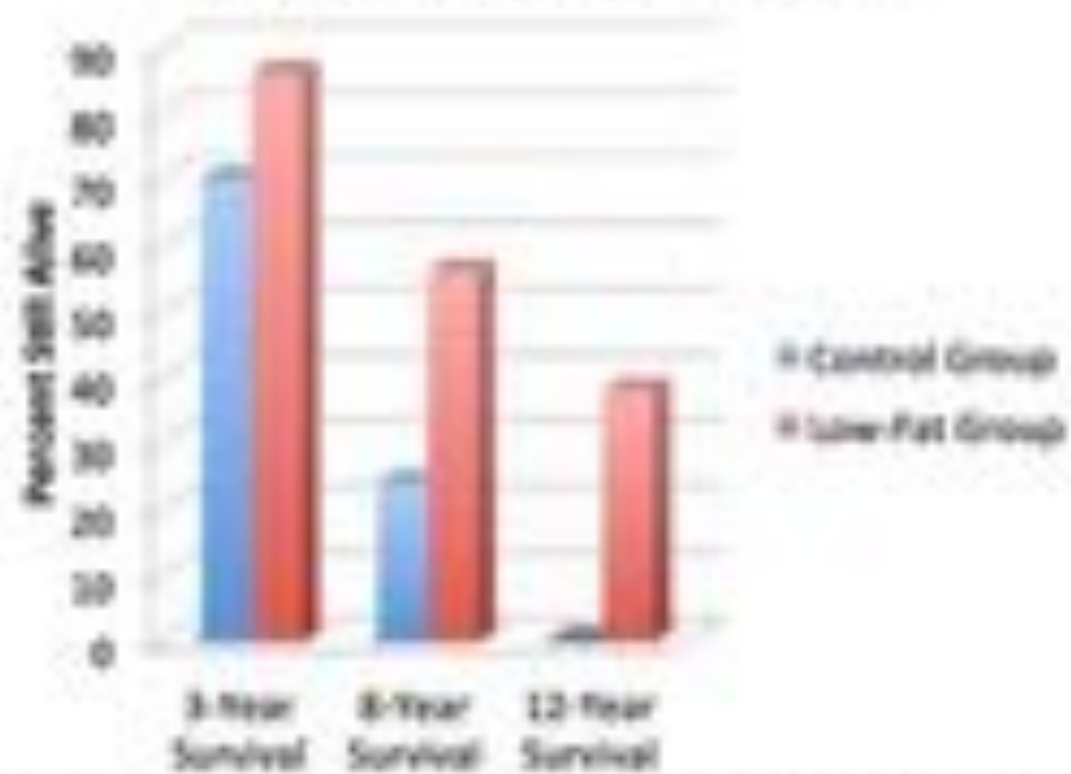
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AND THE CHIEF MEDICAL OFFICER,
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Survival on Morrison Low-Fat Diet



12-year data taken from Morrison's "Diet in Coronary Atherosclerosis," JAMA, June 25, 1960.



"CHANCE FAVORS THE
PREPARED MIND."

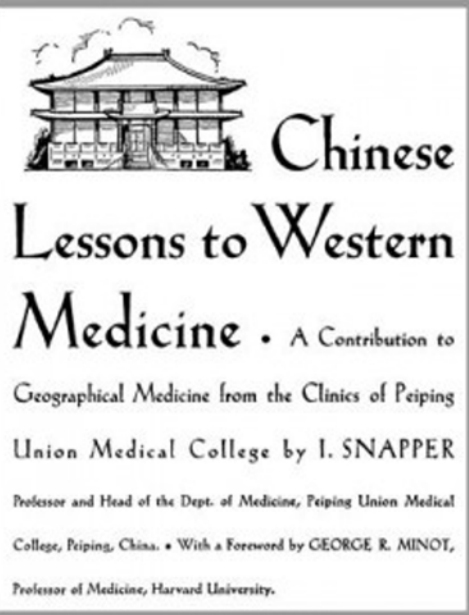
— LOUIS PASTEUR —



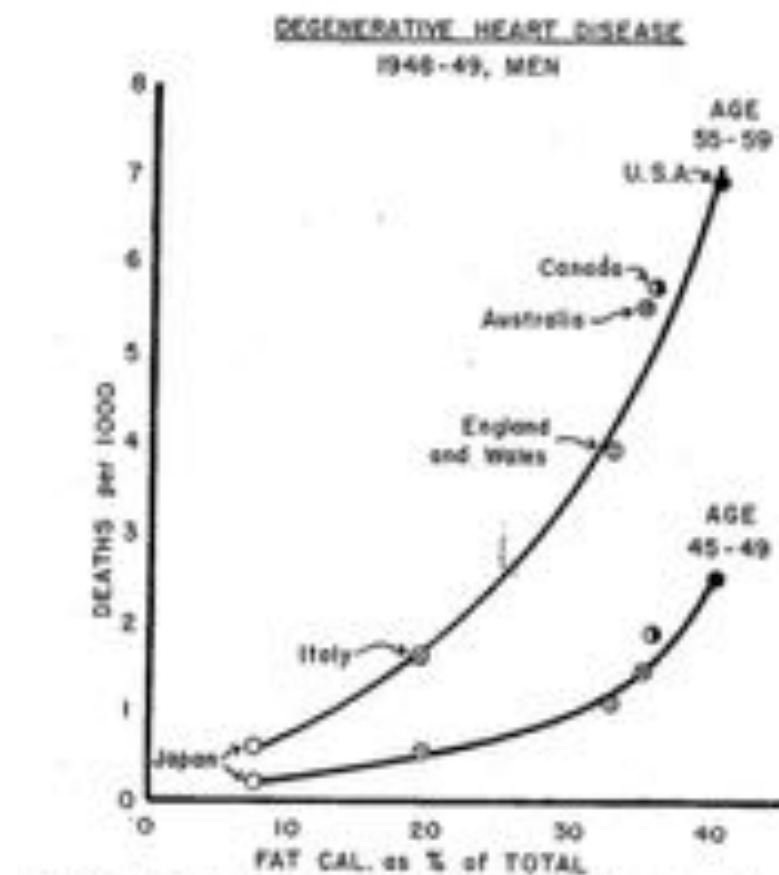
No!



IN 1916 A DUTCH PHYSICIAN, CORNELIS DE LANGEN, NOTED THAT THE DUTCH IN JAVA, AN ISLAND IN INDONESIA, HAD ATHEROSCLEROSIS (PLAQUE BUILD-UP INSIDE THE ARTERIES) AND CARDIOVASCULAR DISEASE, BUT THIS WAS UNCOMMON IN THE JAVANESE ON THEIR NATIVE DIET, WHICH WAS MAINLY BASED ON PLANT FOODS WITH A FEW EGGS A WEEK. HE LINKED HIGH BLOOD CHOLESTEROL TO HEART DISEASE AND SHOWED THAT PUTTING THE JAVANESE ON A DUTCH DIET INCREASED THEIR BLOOD CHOLESTEROL



RESEARCH ON THE EPIDEMIOLOGY AND PREVENTION OF CARDIOVASCULAR DISEASES IN OBSERVING CHINESE CONTRASTS WITH WESTERNERS IN HEART DISEASE RATES, IN AVERAGE BLOOD CHOLESTEROL LEVELS, AND IN DIET, ATTRIBUTING PROTECTION TO PLANT FOODS AND LINOLEIC AND LINOLENIC ACID INTAKE. HE PUBLISHED THESE OBSERVATIONS IN CHINESE LESSONS TO WESTERN MEDICINE IN 1941





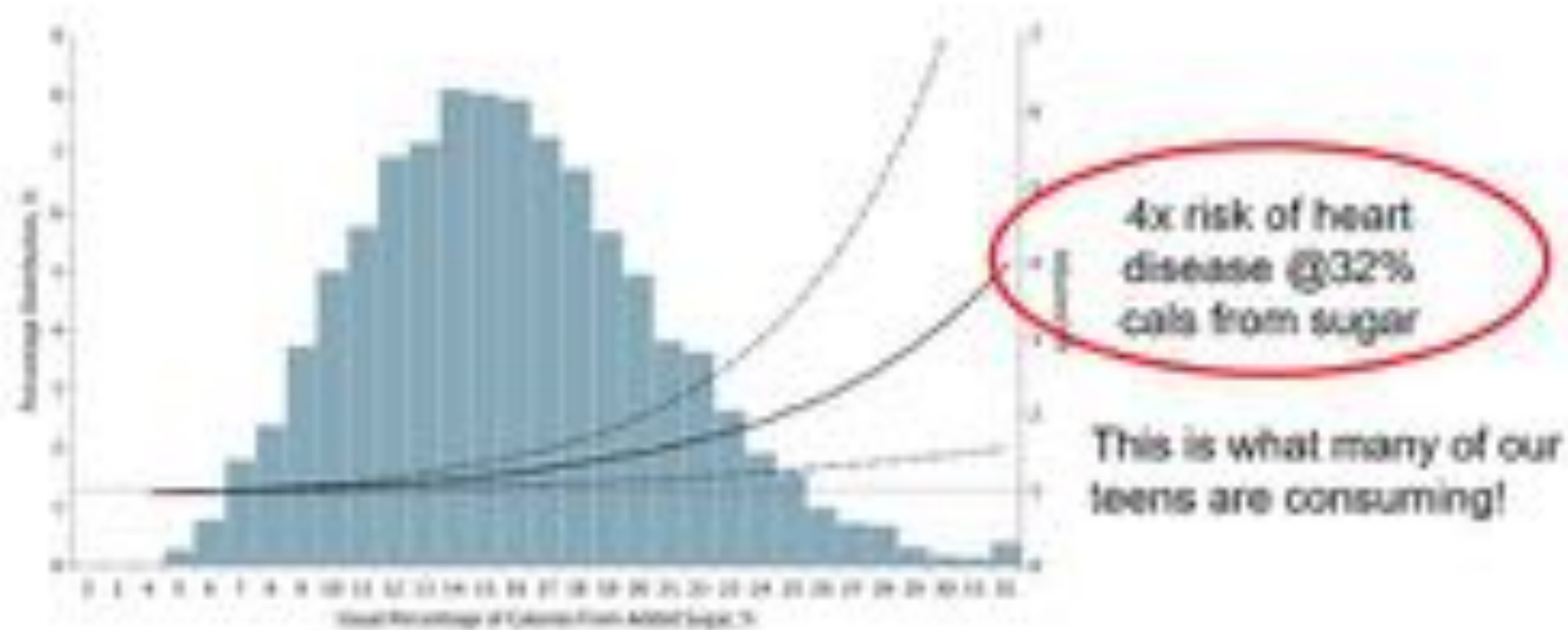
FINDINGS IN OBSERVATIONAL STUDIES FROM 1980-2012, COLLECTIVELY WITH MORE THAN 250,000 SUBJECTS, HAVE NOT SUPPORTED AN ASSOCIATION BETWEEN DIETARY CHOLESTEROL AND CVD RISK (FATAL OR NONFATAL MYOCARDIAL INFARCTION OR STROKE), PARTICULARLY WHEN ADJUSTING FOR TOTAL ENERGY INTAKE. SIMILARLY, EGG INTAKE IS NOT ASSOCIATED WITH CVD RISK. BUT THE OBSERVATIONS FOR EGGS MAY BE CONFOUNDED BY OTHER DIETARY, SOCIOECONOMIC, AND LIFESTYLE FACTORS THAT COVARY WITH EGGS.



DR. JOHN YUDKIN

A STUDY CARRIED OUT BY YUDKIN IN 1957, IN WHICH THE DEATH RATE FROM CORONARY DISEASE IN FIFTEEN COUNTRIES WAS CORRELATED IN RELATION TO THE AVERAGE INTAKE OF SUGAR. THE STUDY CONCLUDED THAT MEN CONSUMING RELATIVELY LARGE AMOUNTS OF SUCROSE FACED FAR GREATER ODDS OF DEVELOPING HEART DISEASE IN THE AGE RANGE OF 45 TO 65, THAN DID THOSE WHO DID NOT INGEST AS MUCH SUCROSE.

Added Sugar Intake and Cardiovascular Diseases Mortality Among US Adults





GYORGY SCRINIS CONCEPT OF 'NUTRITIONISM' IS PARTICULARLY USEFULACCORDING TO SCRINIS, BEGINNING IN THE 1960S, THERE WAS AN INCREASING TENDENCY TOWARDS A REDUCTIVE UNDERSTANDING OF NUTRIENTS IN WHICH FOODS BECAME DISTINGUISHED AS EITHER 'GOOD' OR 'BAD'. THIS SCRINIS ARGUES SIGNALLED THE EMERGENCE OF A NEW NUTRITIONAL ERA, ONE WHICH BECAME WHOLLY OBSESSED WITH FAT AND FOCUSING ATTENTION ON SINGLE NUTRIENTS **RATHER THAN ADDRESS THE ROLE OF FOOD PRODUCTION TECHNIQUES, ADDITIVES OR THE METABOLIC INTERACTION OF DIFFERENT NUTRIENTS.**¹⁸



SCRINIS MAINTAINS THAT THE NARROW FOCUS ON FAT, AND LATER THE DIFFERENT TYPES OF FAT, SERVED TO FOCUS THE ATTENTION OF THE PUBLIC AND NUTRITION EXPERTS ON THE PRESENCE OR ABSENCE OF FAT IN FOODS, RATHER THAN ON THE PROCESSING TECHNIQUES AND OTHER INGREDIENTS (I.E. REFINED SUGAR) USED IN PRODUCTION...

CORRESPONDINGLY, THE FOOD INDUSTRY, HEAVILY INFLUENCED BY THE POWERFUL SUGAR LOBBY, FUELLED THIS SIGNIFICANTLY BY TRANSLATING THE FINDINGS OF KEYS ET AL. INTO AN ENORMOUS ARRAY OF LOW-FAT PRODUCTS

**FIRST THEY WILL
LAUGH**

THEN THEY WILL COPY

DON'T GIVE UP.

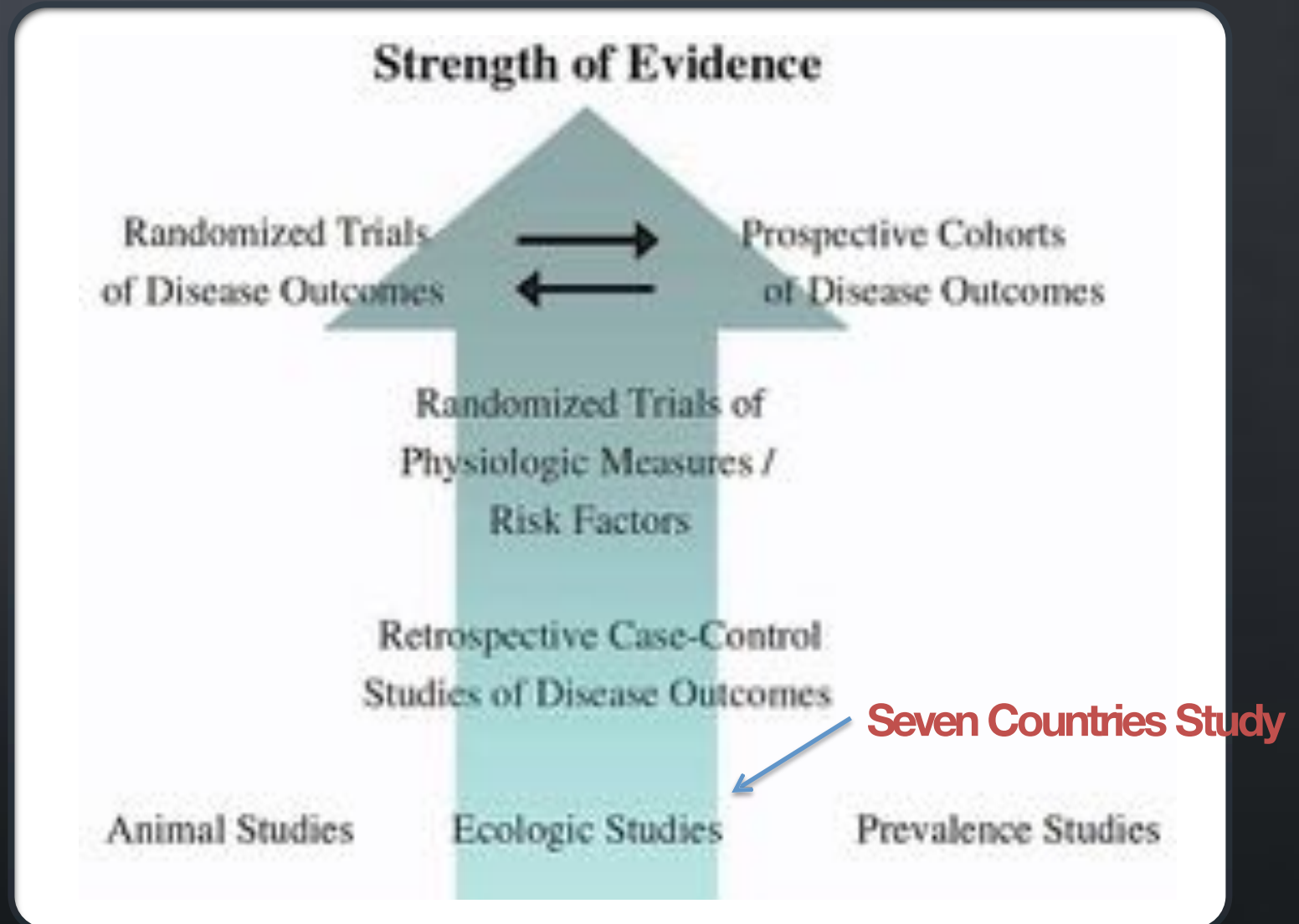


Nathan Pritikin,
Founder, The Pritikin Program

*"All I'm trying to do is wipe out heart disease,
diabetes, hypertension, and obesity."*

A word cloud centered around the theme of 'research practice' and 'Action'. The words are arranged in a circular pattern, with 'research' and 'Action' being the largest and most prominent. Other significant words include 'practice', 'Questions', 'researchers', 'process', 'actions', 'understanding', 'inquiry', 'one's', 'multiple', 'look', 'change', 'effective', 'theory', 'evidence', 'taken', 'working', 'work', 'learning', 'good', 'improvement', 'examples', 'change', 'effective', 'researchers', 'learning', 'good', 'theory', 'evidence', 'taken', 'working', 'work', 'learning', 'good', 'theory', 'evidence', 'taken', 'working', 'work'.

STRENGTH OF NUTRITION SCIENCE EVIDENCE



ROLE OF NUTRITION IN CVD RISK FACTORS

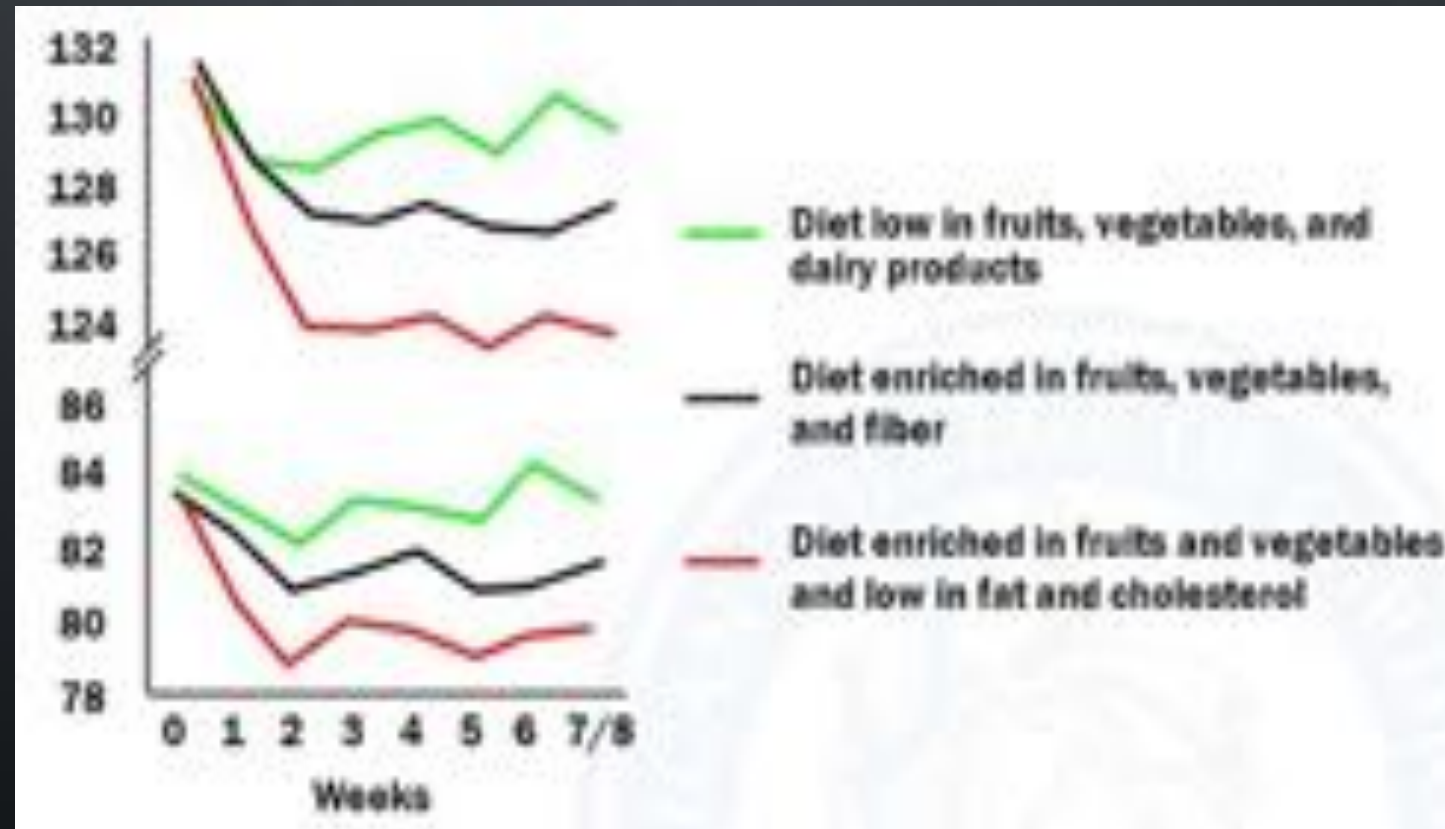
Randomized Trial Evidence

Dietary Approaches to Stop Hypertension (DASH) Group

459 hypertensive patients randomized to 1 of 3 diets for 8 weeks

Systolic blood
pressure
(mm Hg)

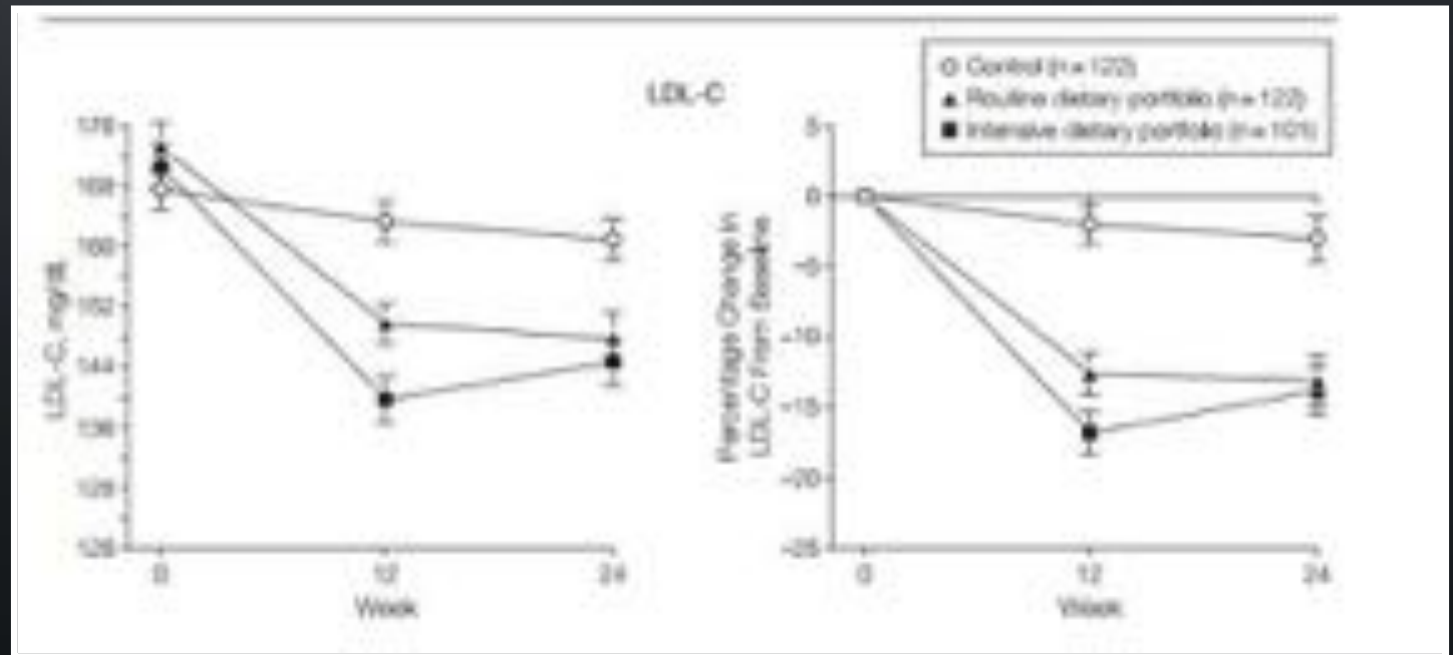
Diastolic blood
pressure
(mm Hg)



PLANT-BASED DIET EFFECTS ON LIPIDS

Effect of a Dietary Portfolio of Cholesterol-Lowering Foods Given at 2 Levels of Intensity of Dietary Advice on Serum Lipids in Hyperlipidemia

A Randomized Controlled Trial



META-ANALYSIS OF RCTS

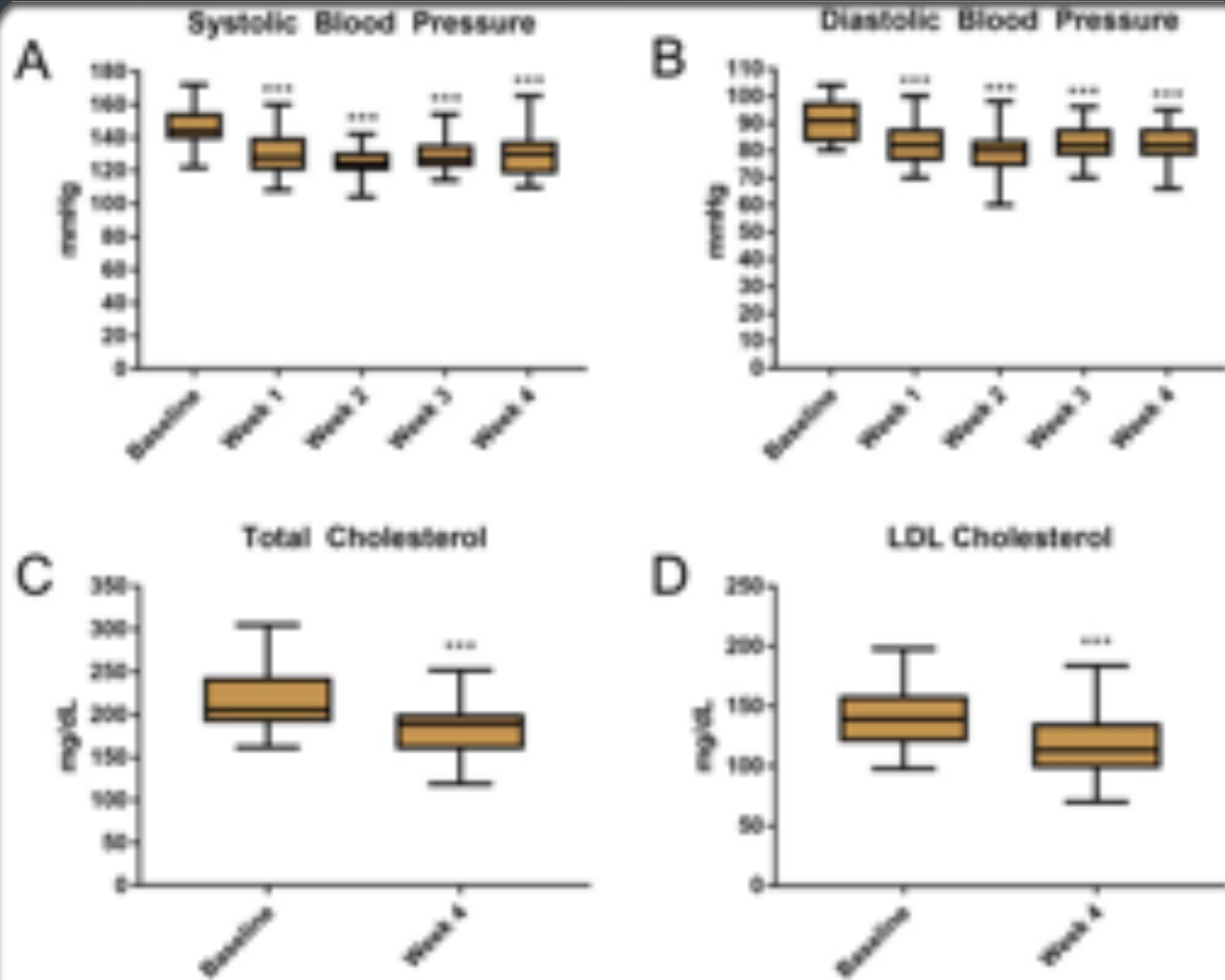
Circulation

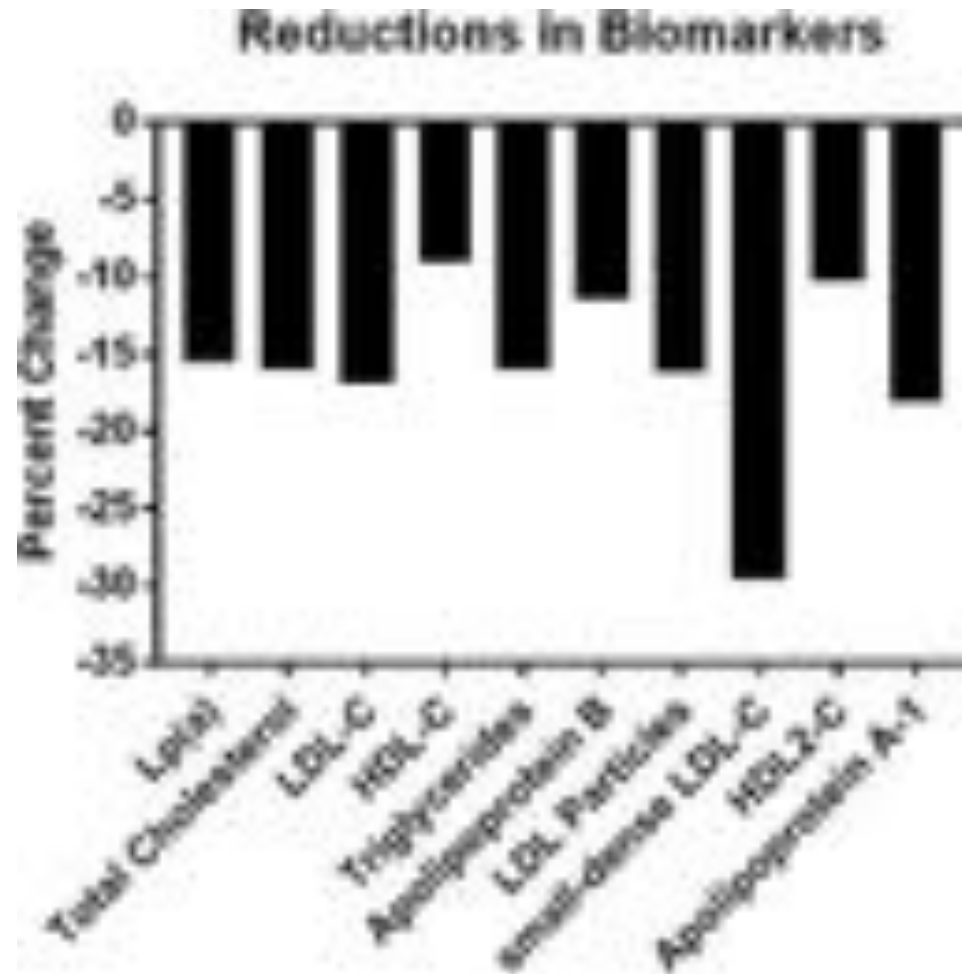
SYSTEMATIC REVIEW

Meta-Analysis of Randomized Controlled Trials of Red Meat Consumption in Comparison With Various Comparison Diets on Cardiovascular Risk Factors

CONCLUSIONS: Inconsistencies regarding the effects of red meat on cardiovascular disease risk factors are attributable, in part, to the composition of the comparison diet. Substituting red meat with high-quality plant protein sources, but not with fish or low-quality carbohydrates, leads to more favorable changes in blood lipids and lipoproteins.

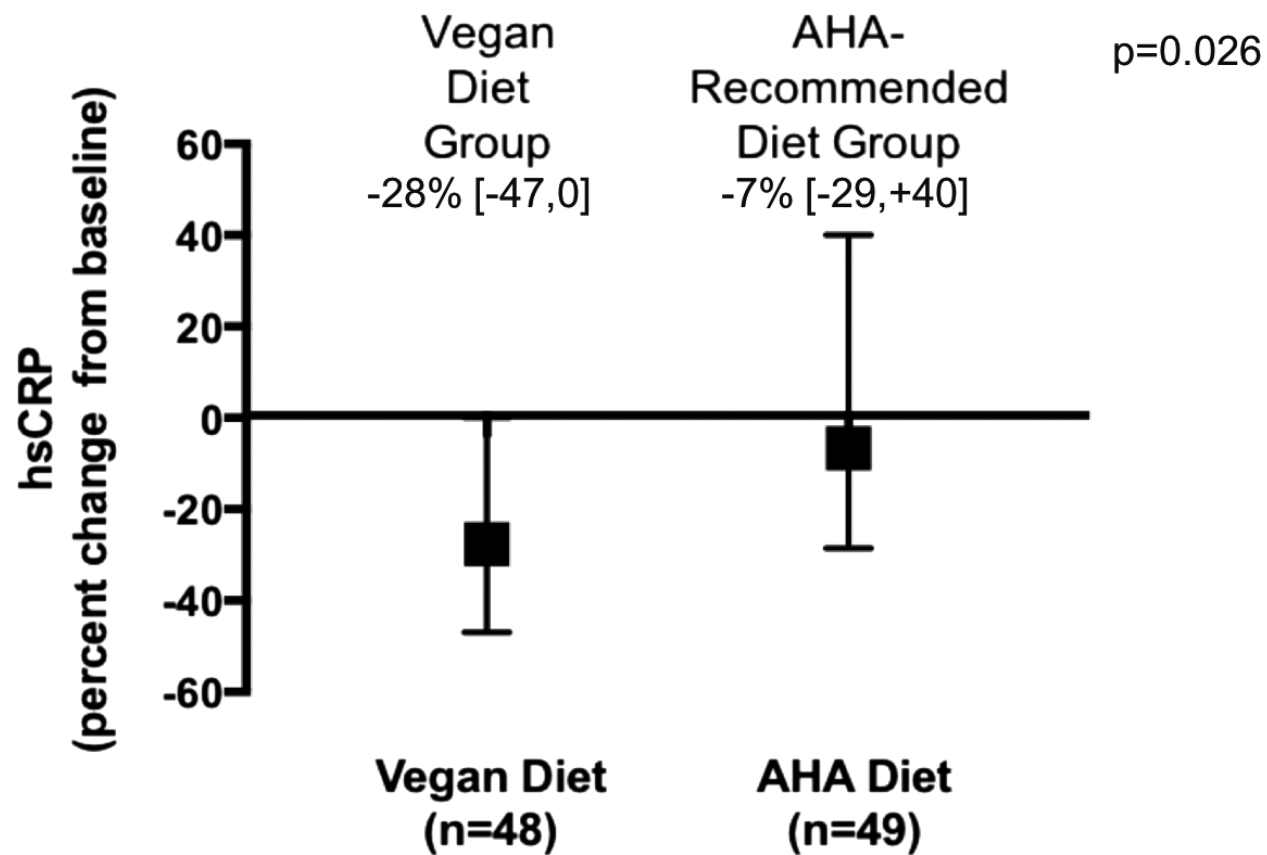
4 WEEK PLANT BASED INTERVENTION





4 WEEK PLANT BASED INTERVENTION

8 WEEK RANDOMIZED ANTI- INFLAMMATORY DIET INTERVENTION



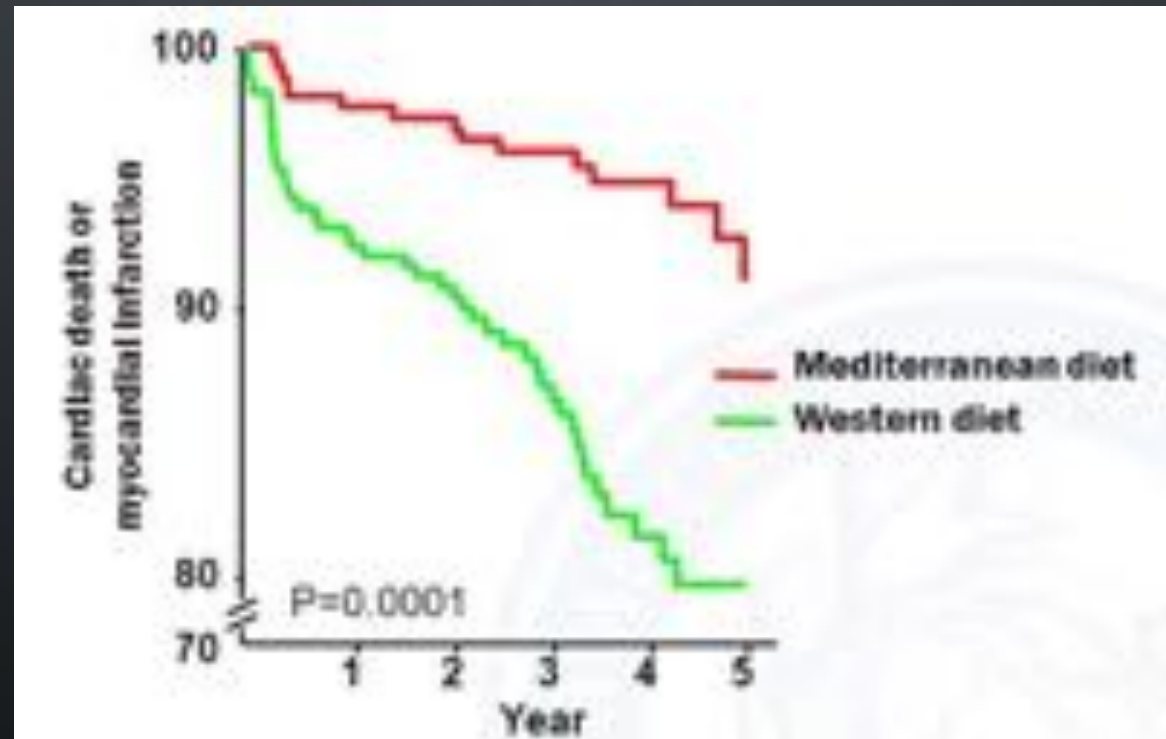
Randomized Trial Evidence: Secondary Prevention

Lyon Diet Heart Study

605 patients following a MI randomized to a **Mediterranean*** or **Western**** diet for 4 years

*High in polyunsaturated fat and fiber,

**High in saturated fat and low in fiber



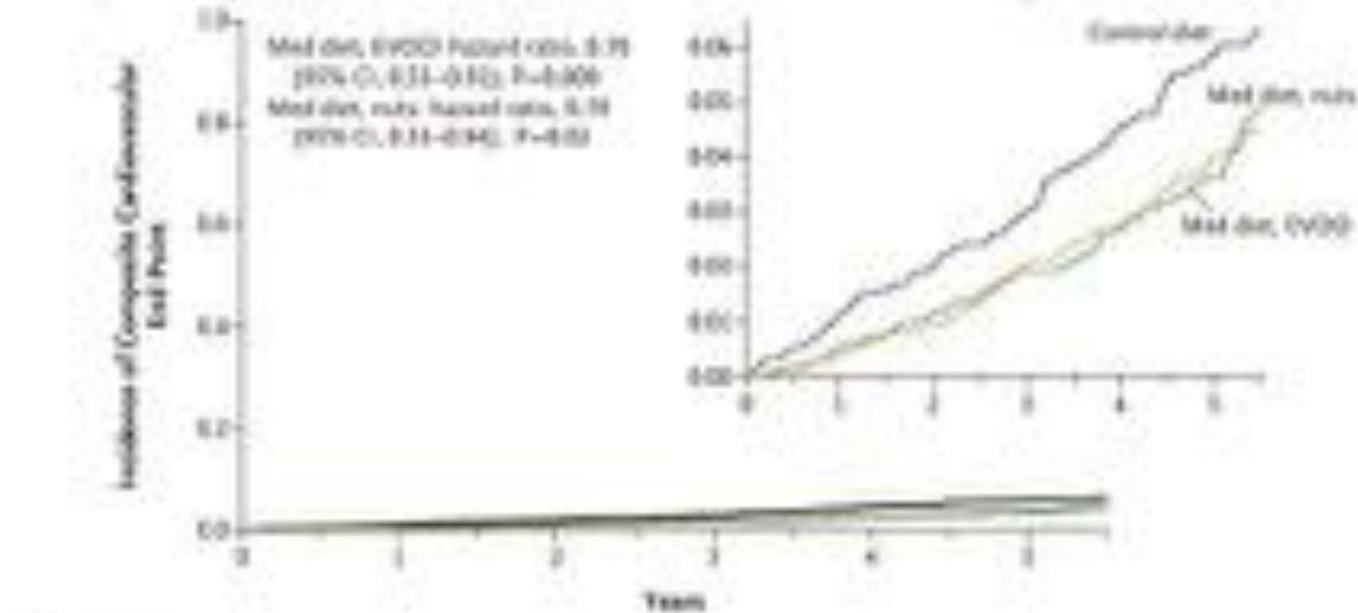
A Mediterranean diet reduces cardiovascular events

BENEFICIAL COMPONENTS OF THE LYON HEART TRIAL

Moderate Alcohol	23.5%
Low consumption of meat and meat products	16.6%
High Vegetable consumption	16.2%
High Fruit and Nut Consumption	11.2%
High Monounsaturated to Saturated Fats (Olive Oil)	10.6%
High Legume consumption	9.7%

PREDIMED STUDY

A. Primary End Point (acute myocardial infarction, stroke, or death from cardiovascular causes)



No. at Risk						
Control diet	2409	2248	2009	1783	1568	940
Med diet, (VCO)	2540	2484	2008	1867	1687	1338
Med diet, nuts	2404	2241	2090	1817	1589	1093

THE GREAT CARB DEBATE

Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study

Interpretation High carbohydrate intake was associated with higher risk of total mortality, whereas total fat and individual types of fat were related to lower total mortality. Total fat and types of fat were not associated with cardiovascular disease, myocardial infarction, or cardiovascular disease mortality, whereas saturated fat had an inverse association with stroke. Global dietary guidelines should be reconsidered in light of these findings.

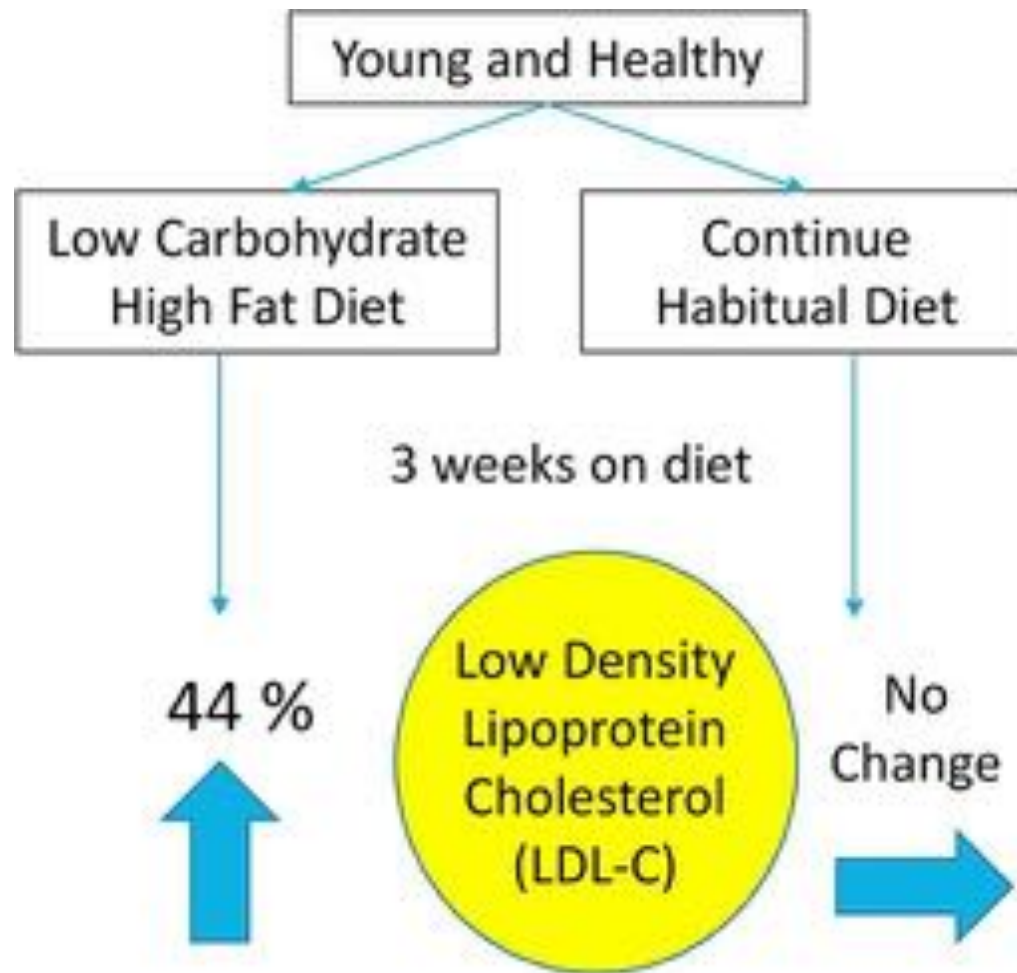
However, all carbs were considered equal (eg. soda versus whole wheat bread) and carb intake was highest in poorer countries with poor medical access.

The Great Carb Debate

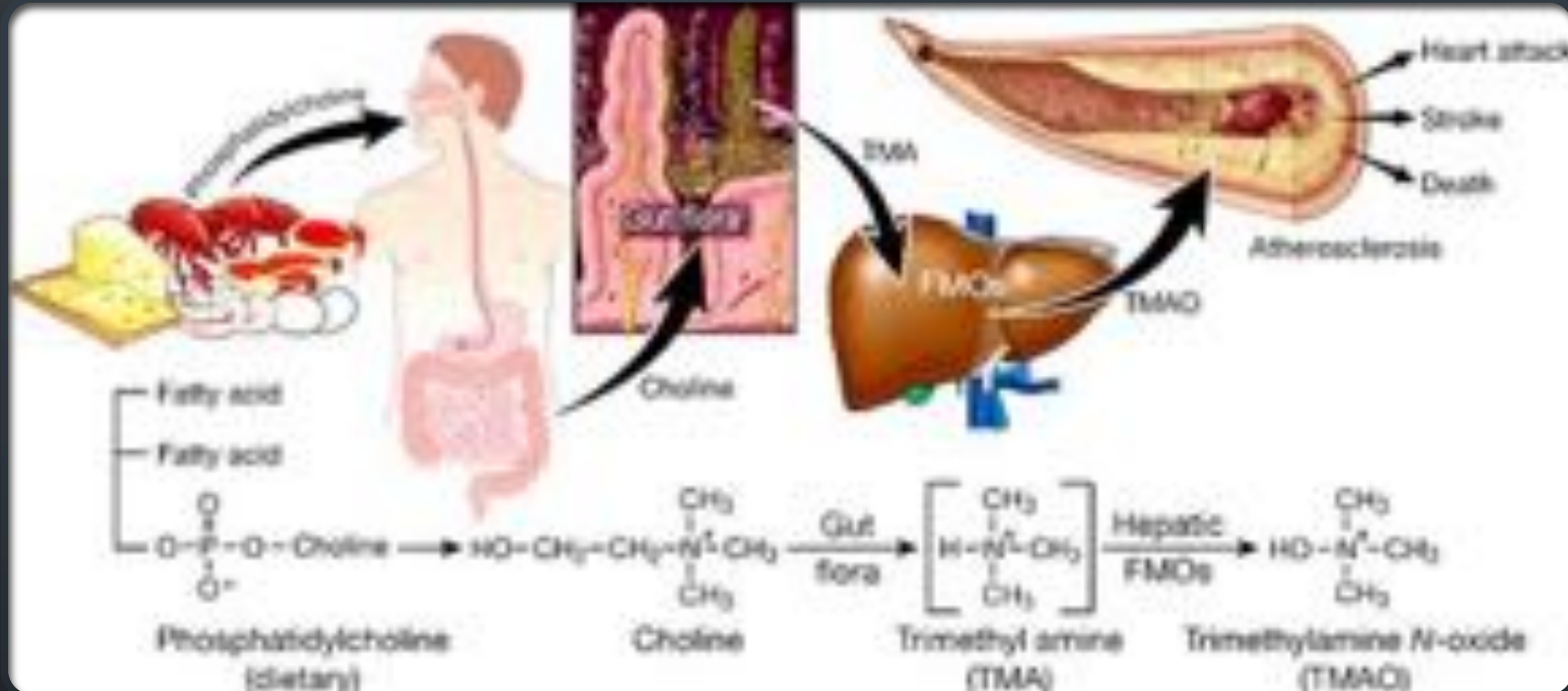
Dietary carbohydrate intake and mortality: a prospective cohort study and meta-analysis

Sara B Seidelmann, Brian Claggett, Susan Cheng, Mir Henglin, Amil Shah, Lyn M Steffen, Aaron R Folsom, Eric B Rimm, Walter C Willett, Scott D Solomon

Interpretation Both high and low percentages of carbohydrate diets were associated with increased mortality, with minimal risk observed at 50–55% carbohydrate intake. Low carbohydrate dietary patterns favouring animal-derived protein and fat sources, from sources such as lamb, beef, pork, and chicken, were associated with higher mortality, whereas those that favoured plant-derived protein and fat intake, from sources such as vegetables, nuts, peanut butter, and whole-grain breads, were associated with lower mortality, suggesting that the source of food notably modifies the association between carbohydrate intake and mortality.



LOW CARB DIET
MAY RAISE LIPIDS
30 PATIENTS
RANDOMIZED TO
LOW CARB/HIGH
FAT VS CONTINUE
DIET X 3WKS



TMAO: CAUSAL ROLE IN ATHEROSCLEROSIS

DIET AND THE MICROBIOME

Effects of dietary fat on gut microbiota and faecal metabolites, and their relationship with cardiometabolic risk factors: a 6-month randomised controlled-feeding trial

Yi Wan,¹ Fenglei Wang,^{1,2} Jihong Yuan,³ Jie Li,³ Dandan Jiang,³ Jingjing Zhang,⁴ Hao Li,¹ Ruoyi Wang,^{1,2} Jun Tang,¹ Tao Huang,⁵ Jusheng Zheng,⁶ Andrew J Sinclair,⁷ Jim Mann,⁸ Duo Li^{1,9}

Conclusion Higher-fat consumption by healthy young adults whose diet is in a state of nutrition transition appeared to be associated with unfavourable changes in gut microbiota, faecal metabolomic profiles and plasma proinflammatory factors, which might confer adverse consequences for long-term health outcomes.

CONTRACT, ALLEGATION: Ultra-Processed Food Intake and Cardiovascular Disease Incidence and Mortality in the European Prospective Study Cohort

Ultra-Processed Foods

Including items made with no or almost no whole foods and processed with substantial structural modification of components (e.g., soft drinks, fast food, sweetened beverages, etc.)



Intake of ultra-processed foods and cardiovascular disease incidence and mortality in the European Prospective Study Cohort

THE CURRENT FINDINGS
SUPPORT THAT HIGHER
CONSUMPTION OF
ULTRA-PROCESSED
FOODS IS ASSOCIATED
WITH INCREASED RISK OF
CVD INCIDENCE AND
MORTALITY



“THE FINDINGS....
DO NOT PROVIDE
EVIDENCE FOR
CHOOSING WHITE
OVER RED MEAT
FOR REDUCING
CVD RISK”

QUALITY OF EVIDENCE OF THE ASSOCIATION OF FOODS AND NUTRIENTS WITH CARDIOVASCULAR DISEASE AND DIABETES

Author	Year	Country	Sample Size (n)	Age Range	Gender	Study Type	Findings	Limitations	Strengths	Conclusion
Smith et al.	2018	USA	120	18-25	Male	Quantitative	High levels of stress and anxiety reported.	Small sample size.	Controlled design.	Stress and anxiety are prevalent in this age group.
Johnson et al.	2019	UK	150	26-35	Female	Qualitative	Themes of isolation and lack of support emerged.	Subjective data.	Interviews with experts.	Need for better mental health support.
Lee et al.	2020	Canada	90	36-45	Male	Quantitative	Decreased productivity and increased absenteeism.	Self-reported data.	Longitudinal study.	Workplace interventions may help.
Kim et al.	2021	South Korea	200	46-55	Female	Quantitative	Significant increase in depression symptoms.	Cross-sectional design.	Validated questionnaire.	Depression is a growing concern.
Wong et al.	2022	Australia	75	56-65	Male	Quantitative	High prevalence of chronic health conditions.	Single time point.	Medical records review.	Chronic conditions impact mental health.
Nguyen et al.	2023	Vietnam	110	66-75	Female	Qualitative	Themes of family pressure and social expectations.	Cultural differences.	Focus group discussions.	Cultural context is crucial for understanding.
Patel et al.	2024	India	130	76-85	Male	Quantitative	Low levels of digital literacy and internet usage.	Urban population only.	Survey-based study.	Digital divide exists in older populations.
Chen et al.	2025	China	160	86-95	Female	Qualitative	Themes of loneliness and loss of purpose.	Small sample size.	Interviews with healthcare providers.	Loneliness is a significant issue.
Miller et al.	2026	USA	140	96-105	Male	Quantitative	High rates of cognitive decline and memory loss.	Short-term study.	Standardized cognitive tests.	Cognitive decline is common in this age group.
Anderson et al.	2027	UK	100	106-115	Female	Qualitative	Themes of physical frailty and dependence on others.	Subjective data.	Interviews with family members.	Physical health affects mental well-being.
Thompson et al.	2028	Canada	80	116-125	Male	Quantitative	Low engagement in social activities and community.	Self-reported data.	Community survey.	Social isolation is prevalent.
White et al.	2029	Australia	120	126-135	Female	Qualitative	Themes of regret and reflection on life choices.	Small sample size.	Interviews with life coaches.	Life reflection is a common experience.
Black et al.	2030	South Africa	90	136-145	Male	Quantitative	High levels of poverty and limited access to healthcare.	Cross-sectional design.	Healthcare facility data.	Socioeconomic factors heavily influence health.
Green et al.	2031	Brazil	110	146-155	Female	Qualitative	Themes of family support and community ties.	Cultural differences.	Focus group discussions.	Family and community are vital support systems.
Adams et al.	2032	USA	130	156-165	Male	Quantitative	Low rates of chronic disease prevalence.	Short-term study.	Medical records review.	Healthcare access and lifestyle factors matter.
Clark et al.	2033	UK	100	166-175	Female	Qualitative	Themes of independence and self-reliance.	Small sample size.	Interviews with healthcare providers.	Independence is a valued goal.
Evans et al.	2034	Canada	80	176-185	Male	Quantitative	High levels of cognitive decline and memory loss.	Short-term study.	Standardized cognitive tests.	Cognitive decline is common in this age group.
Roberts et al.	2035	Australia	120	186-195	Female	Qualitative	Themes of physical frailty and dependence on others.	Subjective data.	Interviews with family members.	Physical health affects mental well-being.
Turner et al.	2036	South Africa	90	196-205	Male	Quantitative	Low engagement in social activities and community.	Self-reported data.	Community survey.	Social isolation is prevalent.
Phillips et al.	2037	Brazil	110	206-215	Female	Qualitative	Themes of family support and community ties.	Cultural differences.	Focus group discussions.	Family and community are vital support systems.
Wright et al.	2038	USA	130	216-225	Male	Quantitative	High levels of cognitive decline and memory loss.	Short-term study.	Standardized cognitive tests.	Cognitive decline is common in this age group.
Scott et al.	2039	UK	100	226-235	Female	Qualitative	Themes of independence and self-reliance.	Small sample size.	Interviews with healthcare providers.	Independence is a valued goal.
Green et al.	2040	Canada	80	236-245	Male	Quantitative	Low rates of chronic disease prevalence.	Short-term study.	Medical records review.	Healthcare access and lifestyle factors matter.
Adams et al.	2041	Australia	120	246-255	Female	Qualitative	Themes of family support and community ties.	Cultural differences.	Focus group discussions.	Family and community are vital support systems.
Clark et al.	2042	South Africa	90	256-265	Male	Quantitative	High levels of cognitive decline and memory loss.	Short-term study.	Standardized cognitive tests.	Cognitive decline is common in this age group.
Evans et al.	2043	Brazil	110	266-275	Female	Qualitative	Themes of independence and self-reliance.	Small sample size.	Interviews with healthcare providers.	Independence is a valued goal.
Roberts et al.	2044	USA	130	276-285	Male	Quantitative	Low rates of chronic disease prevalence.	Short-term study.	Medical records review.	Healthcare access and lifestyle factors matter.
Turner et al.	2045	UK	100	286-295	Female	Qualitative	Themes of family support and community ties.	Cultural differences.	Focus group discussions.	Family and community are vital support systems.
Phillips et al.	2046	Canada	80	296-305	Male	Quantitative	High levels of cognitive decline and memory loss.	Short-term study.	Standardized cognitive tests.	Cognitive decline is common in this age group.
Wright et al.	2047	Australia	120	306-315	Female	Qualitative	Themes of independence and self-reliance.	Small sample size.	Interviews with healthcare providers.	Independence is a valued goal.
Scott et al.	2048	South Africa	90	316-325	Male	Quantitative	Low rates of chronic disease prevalence.	Short-term study.	Medical records review.	Healthcare access and lifestyle factors matter.
Green et al.	2049	Brazil	110	326-335	Female	Qualitative	Themes of family support and community ties.	Cultural differences.	Focus group discussions.	Family and community are vital support systems.
Adams et al.	2050	USA	130	336-345	Male	Quantitative	High levels of cognitive decline and memory loss.	Short-term study.	Standardized cognitive tests.	Cognitive decline is common in this age group.

QUALITY OF EVIDENCE OF THE ASSOCIATION OF FOODS AND NUTRIENTS WITH CARDIOVASCULAR DISEASE AND DIABETES

Author	Study	Population	No. of subjects with aortic valve disease	No. of patients	No. of controls	Age	Mean follow-up	Outcome	Ref.
Franklin et al. ¹¹ 2002	Retrospective	744	1	1000	1000	65.0	10.0	1.0	11
Franklin et al. ¹² 2003	Retrospective	744	1	1000	1000	65.0	10.0	1.0	12
Franklin et al. ¹³ 2004	Retrospective	744	1	1000	1000	65.0	10.0	1.0	13
Franklin et al. ¹⁴ 2005	Retrospective	744	1	1000	1000	65.0	10.0	1.0	14
Franklin et al. ¹⁵ 2006	Retrospective	744	1	1000	1000	65.0	10.0	1.0	15
Franklin et al. ¹⁶ 2007	Retrospective	744	1	1000	1000	65.0	10.0	1.0	16
Franklin et al. ¹⁷ 2008	Retrospective	744	1	1000	1000	65.0	10.0	1.0	17
Franklin et al. ¹⁸ 2009	Retrospective	744	1	1000	1000	65.0	10.0	1.0	18
Franklin et al. ¹⁹ 2010	Retrospective	744	1	1000	1000	65.0	10.0	1.0	19
Franklin et al. ²⁰ 2011	Retrospective	744	1	1000	1000	65.0	10.0	1.0	20
Franklin et al. ²¹ 2012	Retrospective	744	1	1000	1000	65.0	10.0	1.0	21
Franklin et al. ²² 2013	Retrospective	744	1	1000	1000	65.0	10.0	1.0	22
Franklin et al. ²³ 2014	Retrospective	744	1	1000	1000	65.0	10.0	1.0	23
Franklin et al. ²⁴ 2015	Retrospective	744	1	1000	1000	65.0	10.0	1.0	24
Franklin et al. ²⁵ 2016	Retrospective	744	1	1000	1000	65.0	10.0	1.0	25
Franklin et al. ²⁶ 2017	Retrospective	744	1	1000	1000	65.0	10.0	1.0	26
Franklin et al. ²⁷ 2018	Retrospective	744	1	1000	1000	65.0	10.0	1.0	27
Franklin et al. ²⁸ 2019	Retrospective	744	1	1000	1000	65.0	10.0	1.0	28
Franklin et al. ²⁹ 2020	Retrospective	744	1	1000	1000	65.0	10.0	1.0	29
Franklin et al. ³⁰ 2021	Retrospective	744	1	1000	1000	65.0	10.0	1.0	30
Franklin et al. ³¹ 2022	Retrospective	744	1	1000	1000	65.0	10.0	1.0	31
Franklin et al. ³² 2023	Retrospective	744	1	1000	1000	65.0	10.0	1.0	32
Franklin et al. ³³ 2024	Retrospective	744	1	1000	1000	65.0	10.0	1.0	33
Franklin et al. ³⁴ 2025	Retrospective	744	1	1000	1000	65.0	10.0	1.0	34

WHOLE GRAINS

- EACH SERVING OF WHOLE GRAIN ASSOCIATED WITH
 - ↓ 5% DECREASE ALL-CAUSE MORTALITY
 - ↓ 9% DECREASE CVD MORTALITY

FRUITS & VEGETABLES



EACH ADDITIONAL SERVING OF FRUITS AND VEGETABLES

↓ 5% ALL CAUSE MORTALITY

↓ 4% CARDIOVASCULAR MORTALITY

FRUITS & VEGETABLES

- EATING FRESH FRUITS DAILY VS RARELY/NEVER

↓ SBP 4 MM HG

↓ BLOOD GLUCOSE 9MG/DL

↓ DIABETES INCIDENCE 12%

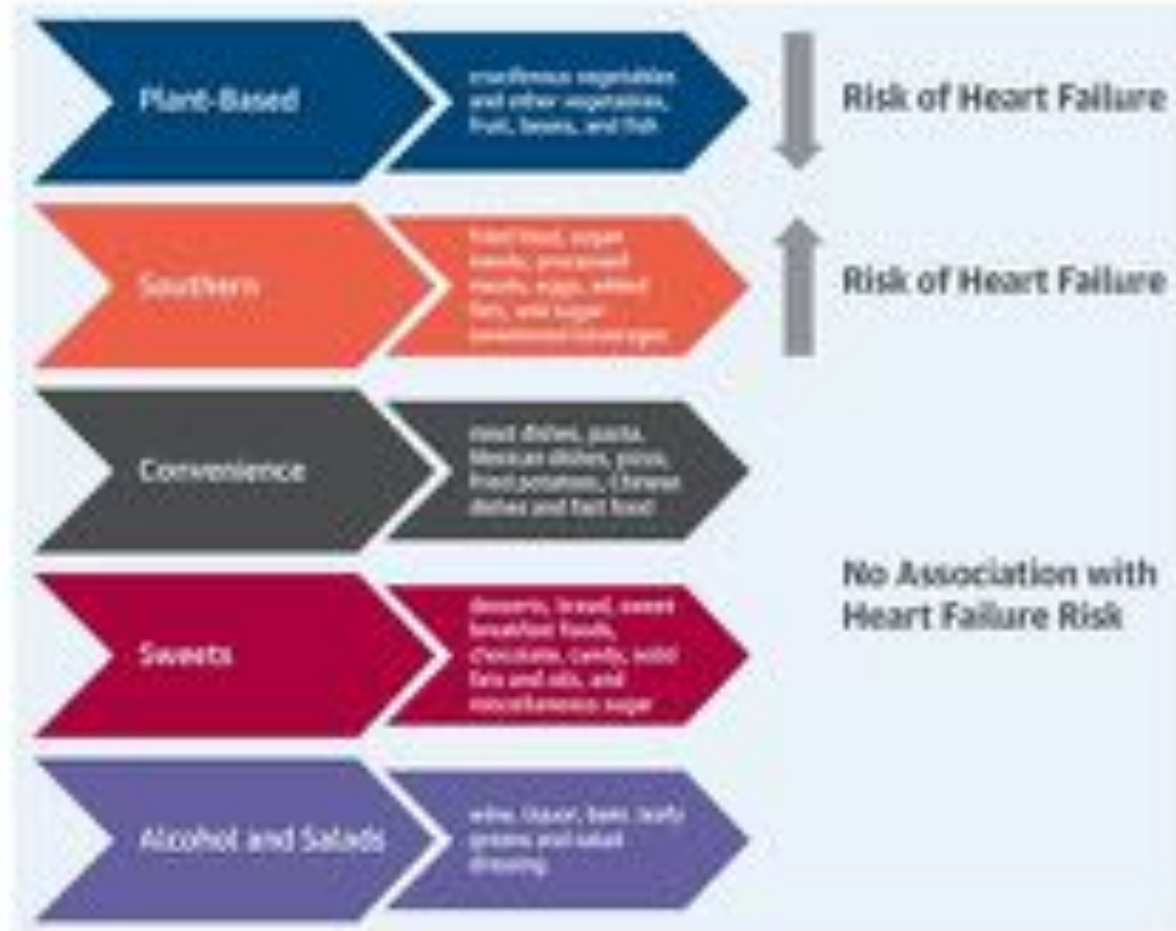
RISK PER SERVING OF RED/PROCESSED MEAT

	RED MEAT	PROCESSED MEAT
TOTAL MORTALITY	13%	20%
CANCER MORTALITY	10%	16%
CARDIOVASCULAR MORTALITY	18%	21%

NUTS

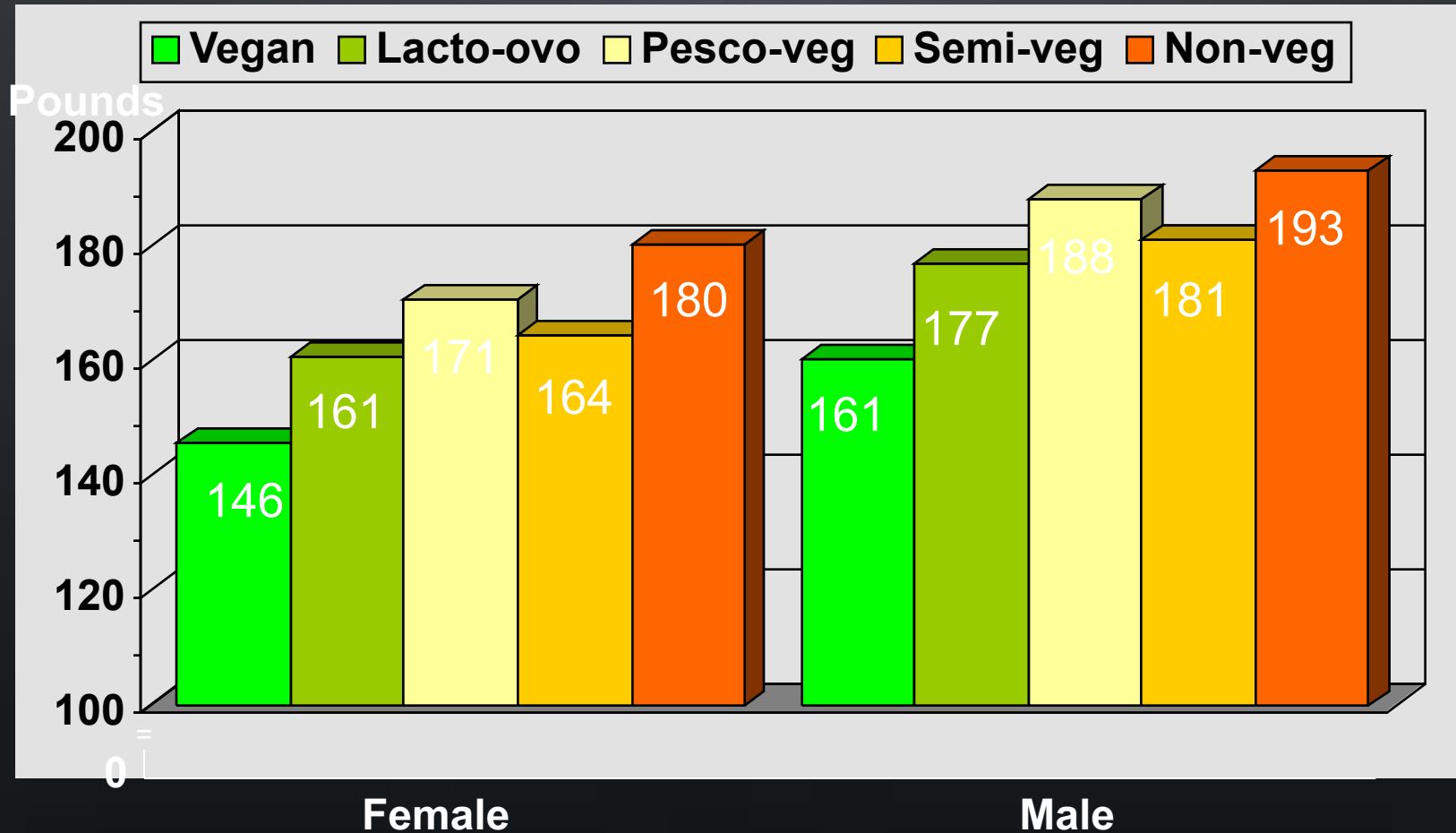
- META-ANALYSIS, 20 PROSPECTIVE COHORT STUDIES;
N=467,389
- HIGHEST VS LOWEST NUT CONSUMPTION:
 - ↓ ALL CAUSE MORTALITY 19%
 - ↓ CARDIOVASCULAR MORTALITY 27%

CENTRAL ILLUSTRATION: Dietary Patterns Among American Adults and Risk for Heart Failure

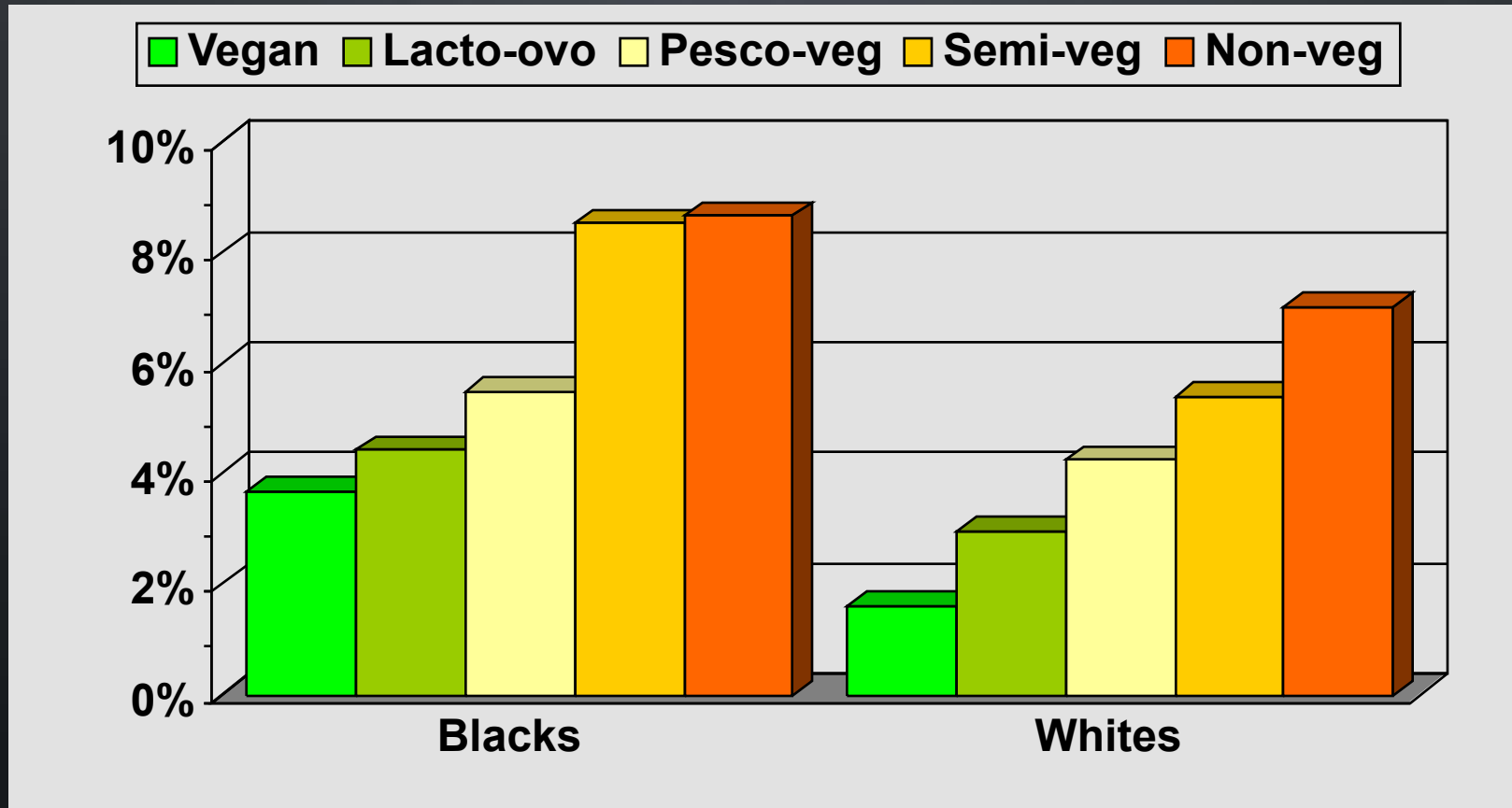


DIETARY PATTERNS AND RISK OF HF

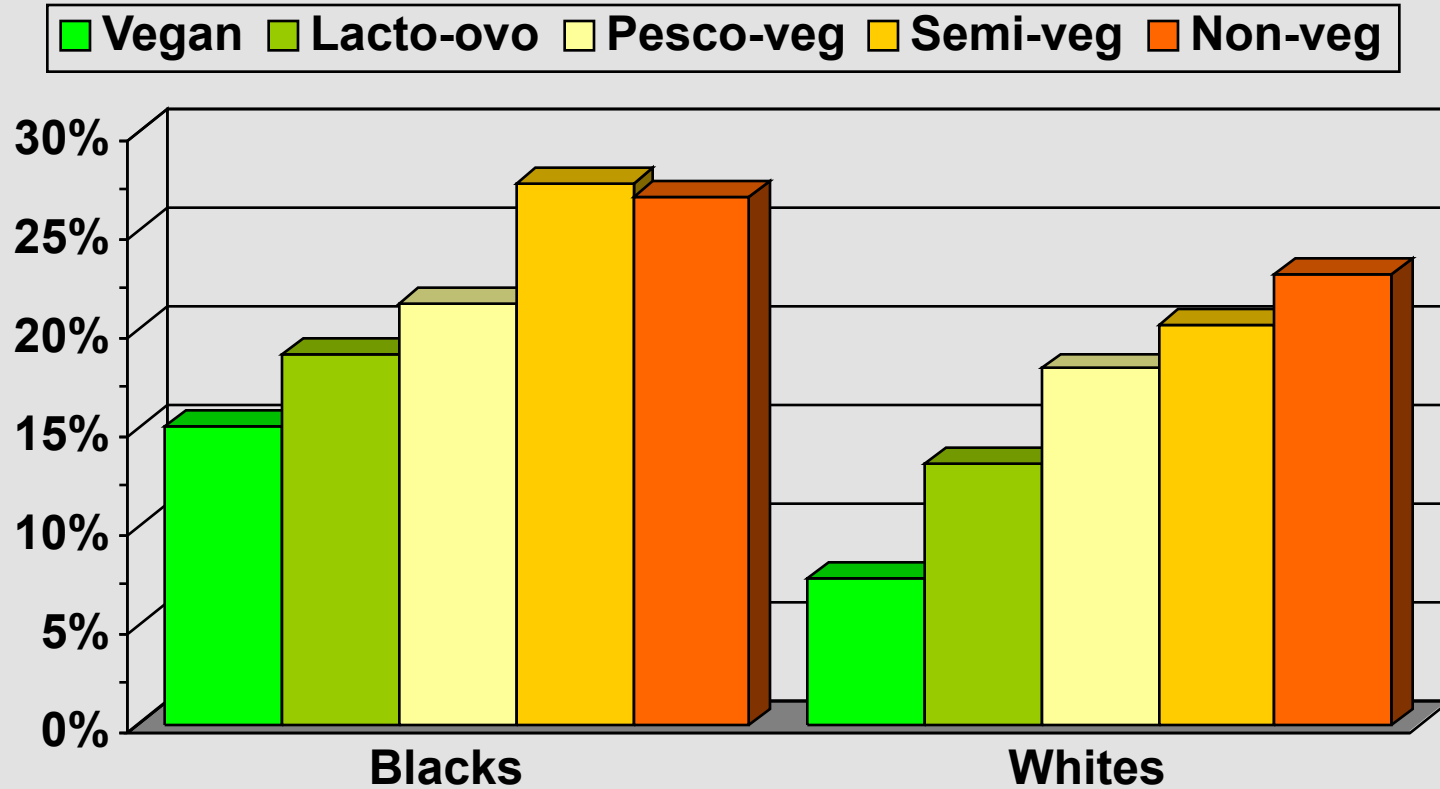
WEIGHT DIFFERENCES BETWEEN VEGETARIANS AND NON-VEGETARIANS



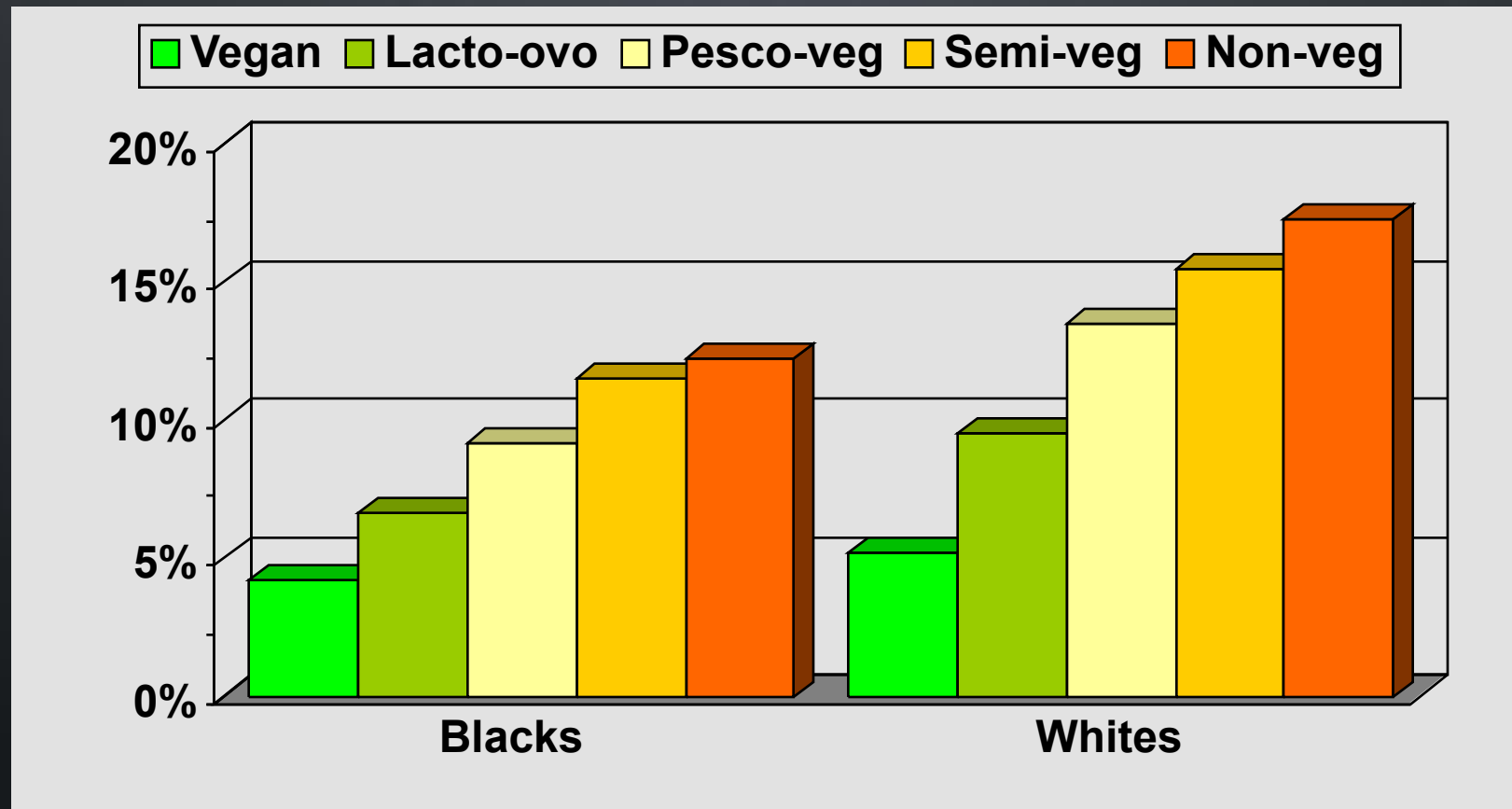
FREQUENCY OF TYPE 2 DIABETES BY DIETARY STATUS AND RACE



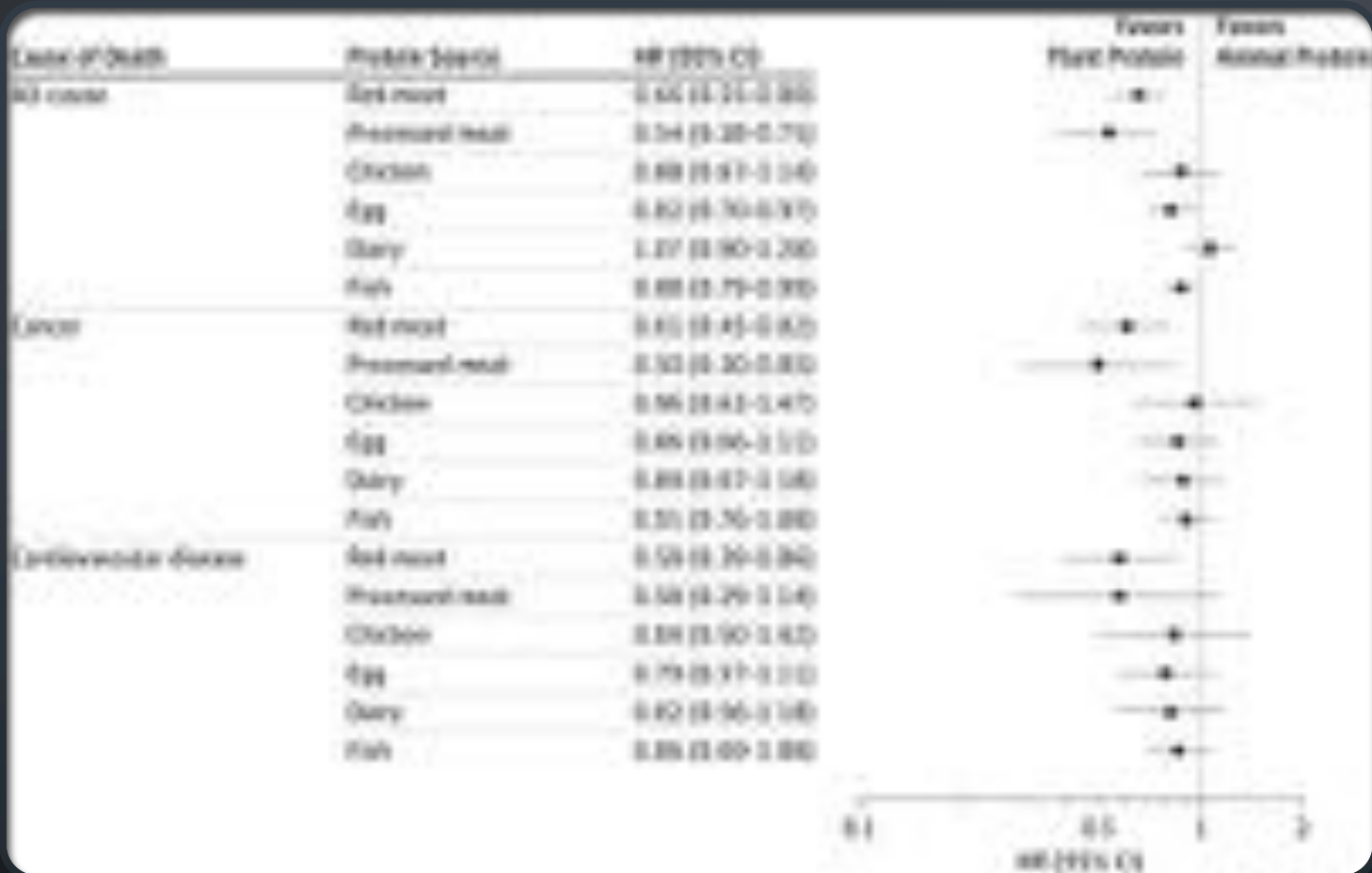
FREQUENCY OF HYPERTENSION BY DIETARY STATUS AND RACE



FREQUENCY OF HIGH CHOLESTEROL BY DIETARY STATUS AND RACE



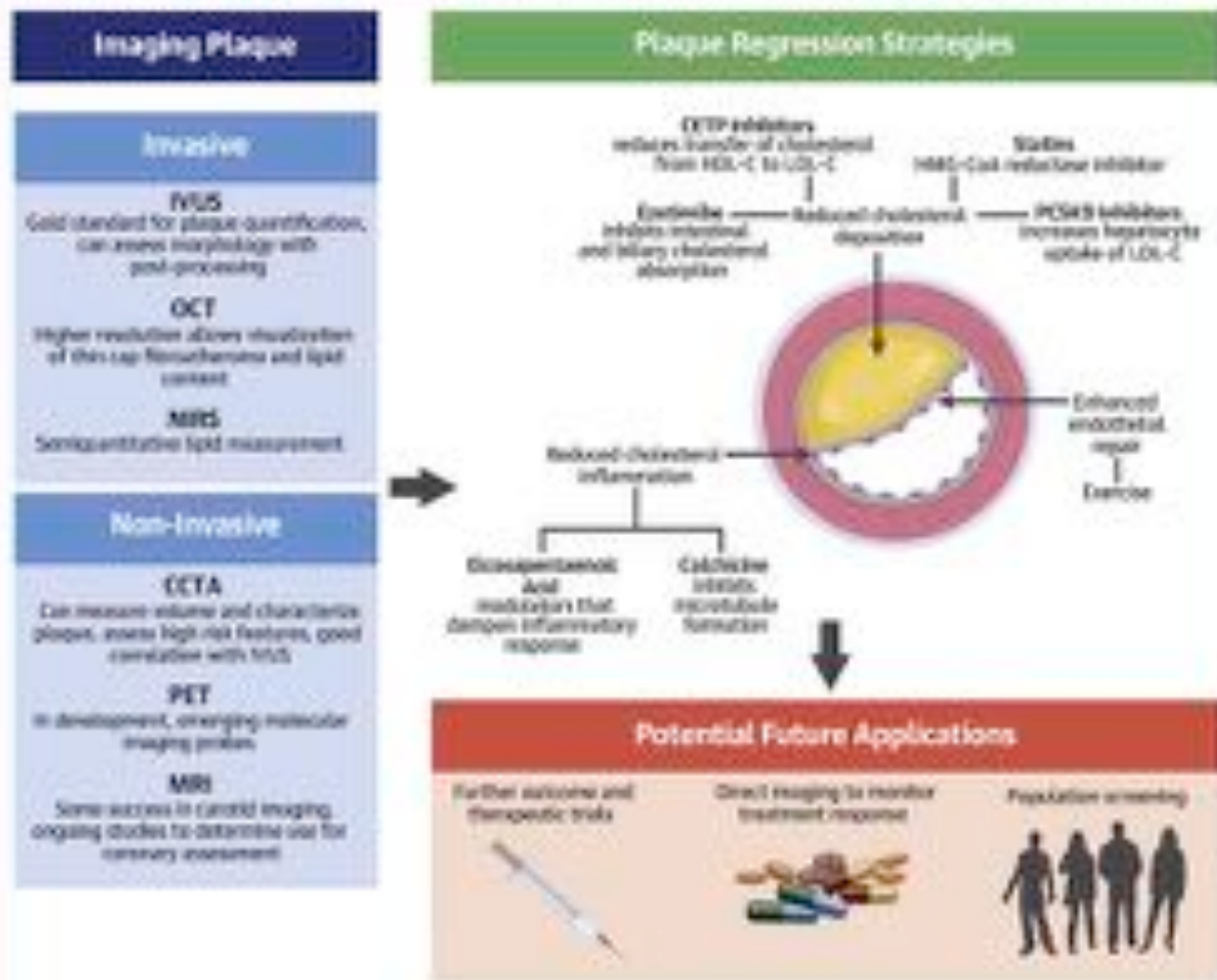
SUBSTITUTION OF 3% ENERGY FROM PLANT PROTEIN FOR ANIMAL PROTEIN FROM VARIOUS SOURCES





CAN HEART DISEASE BE
STALLED OR REVERSED?

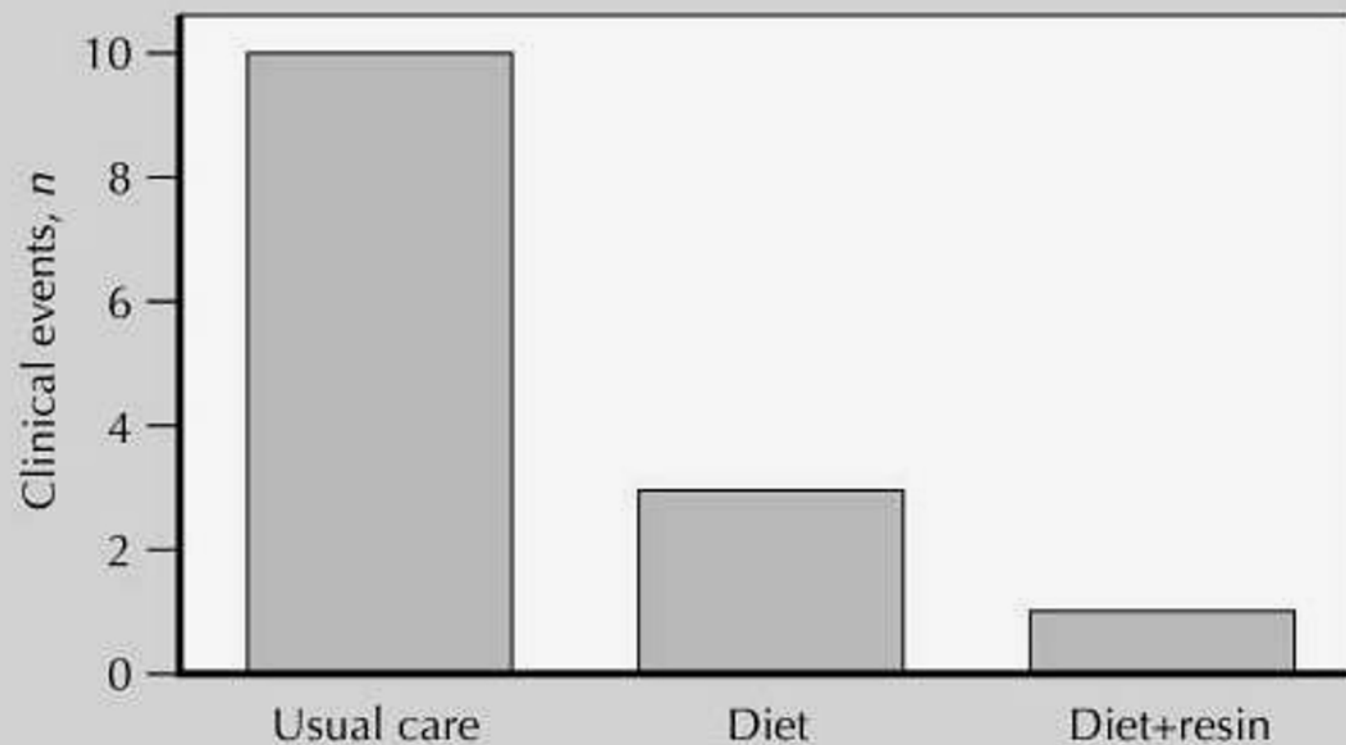
CENTRAL ILLUSTRATION: Coronary Atherosclerotic Plaque Regression



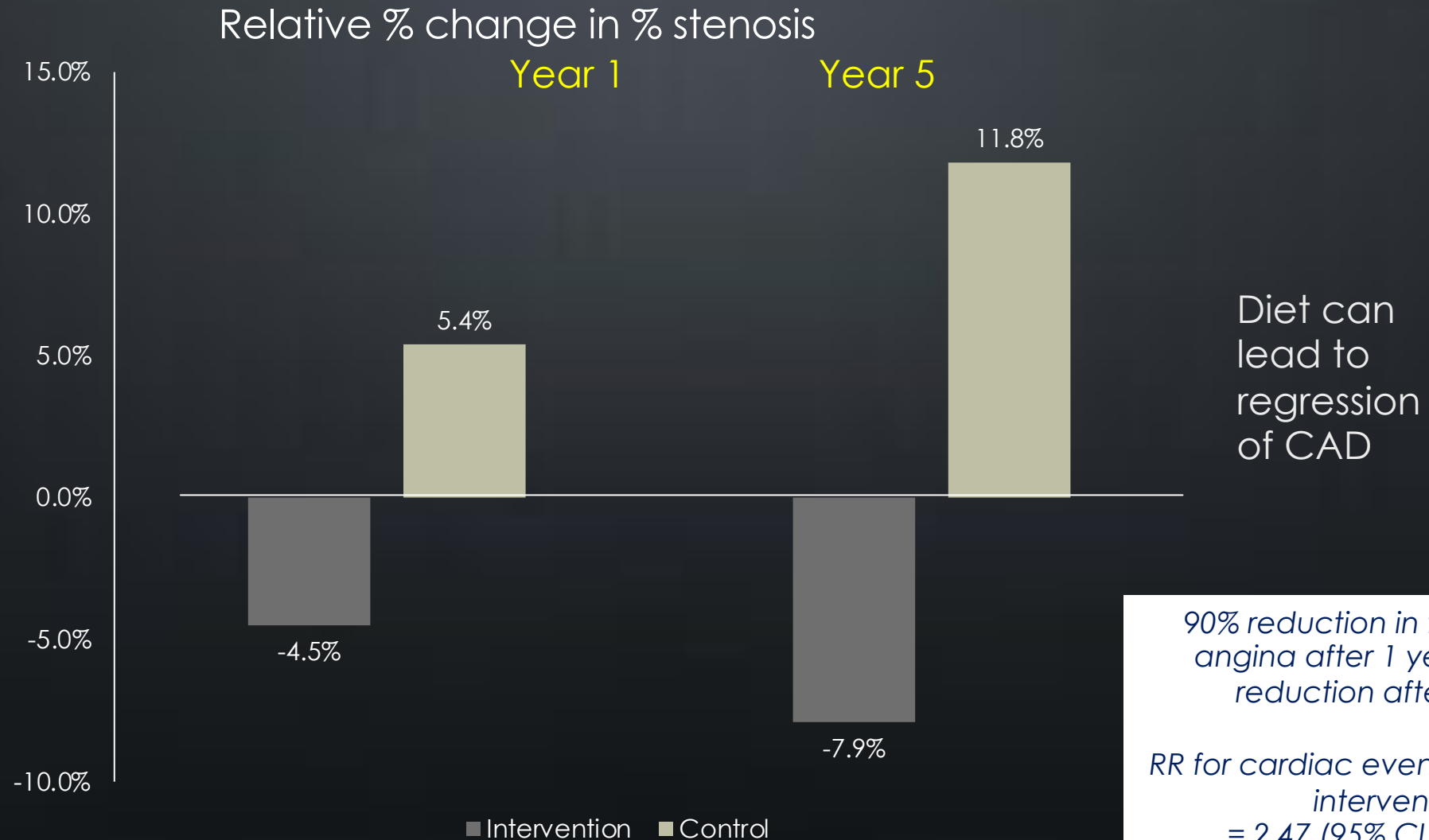
“IF OUTCOME DATA LINKING PLAQUE REGRESSION TO REDUCED CV EVENTS EMERGE, IT MAY BECOME POSSIBLE TO DIRECTLY IMAGE PLAQUE TREATMENT RESPONSE TO GUIDE MANAGEMENT DECISIONS.”

**Effects on coronary artery disease of lipid-lowering
diet, or diet plus cholestyramine, in the St Thomas'
Atherosclerosis Regression Study (STARS)**

G. F. WATTS B. LEWIS J. N. H. BRUNT E. S. LEWIS
D. J. COLTART L. D. R. SMITH J. I. MANN A. V. SWAN



LIFESTYLE HEART TRIAL



MOUNT ABU OPEN HEART TRIAL

- OBSERVATIONAL STUDY
- ONE HUNDRED AND TWENTY- THREE ANGIOGRAPHICALLY DOCUMENTED MODERATE TO SEVERE CORONARY ARTERY DISEASE (CAD) PATIENTS WERE ADMINISTERED LOW-FAT, HIGH-FIBER VEGETARIAN DIET, MODERATE AEROBIC EXERCISE AND STRESS-MANAGEMENT



MOUNT ABU OPEN HEART TRIAL RESULTS

- THREE HUNDRED AND SIXTY CORONARY LESIONS WERE ANALYZED BY TWO INDEPENDENT ANGIOGRAPHERS.
- IN CAD PATIENTS WITH MOST ADHERENCE, PERCENT DIAMETER STENOSIS REGRESSED BY 18.23 ± 12.04 ABSOLUTE PERCENTAGE POINTS.



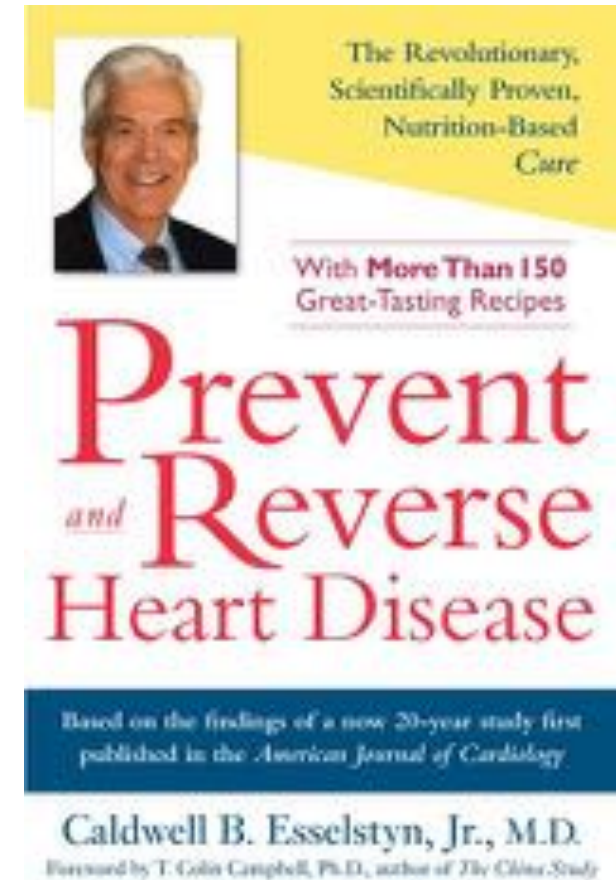
MOUNT ABU OPEN HEART TRIAL RESULTS

91% patients showed a trend towards regression and 51.4% lesions regressed by more than 10 absolute percentage points.

The cardiac events in coronary artery disease patients were: 11 in most adherence, and 38 in least adherence over a follow-up period of 6.48 yrs. (risk ratio; most vs least adherence: 4.32; 95% CI: 1.69-11.705; $P < 0.002$).

ESSELSTYN'S 23-YEAR STUDY OF 18 SERIOUSLY ILL HEART PATIENTS

- ALL PLANT-BASED DIET, LOW DOSE STATINS
- 49 CORONARY EVENTS DURING 8 YEARS PRIOR TO STUDY
- 0 CORONARY EVENTS DURING 12 YRS OF FOLLOW-UP IN 17/18 PATIENTS. ALL ADHERENT PATIENTS SURVIVED >20 YRS



LANCET COMMISSION RECOMMENDATIONS

Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems

Walter Willett, Johan Rockström, Brent Loken, Marco Springmann, Tim Lang, Sonja Vermeulen, Tara Garnett, David Tilman, Fabrice DeClerck, Amanda Wood, Malin Jonell, Michael Clark, Line J Gordon, Jessica Fanzo, Corinna Hawkes, Rami Zurayk, Juan A Rivera, Wim De Vries, Lindiwe Majele Sibanda, Ashkan Afshin, Abhishek Chaudhary, Mario Herrera, Rina Agustina, Francesco Branca, Anna Larrey, Shenggen Fan, Beatrice Crona, Elizabeth Fox, Victoria Bignet, Max Troell, Therese Lindahl, Sudhvir Singh, Sarah E Cornell, K Srinath Reddy, Sunita Narain, Sania Nishtar, Christopher J L Murray

Healthy diets have an appropriate caloric intake and consist of a diversity of plant-based foods, low amounts of animal source foods, unsaturated rather than saturated fats, and small amounts of refined grains, highly processed foods, and added sugars.

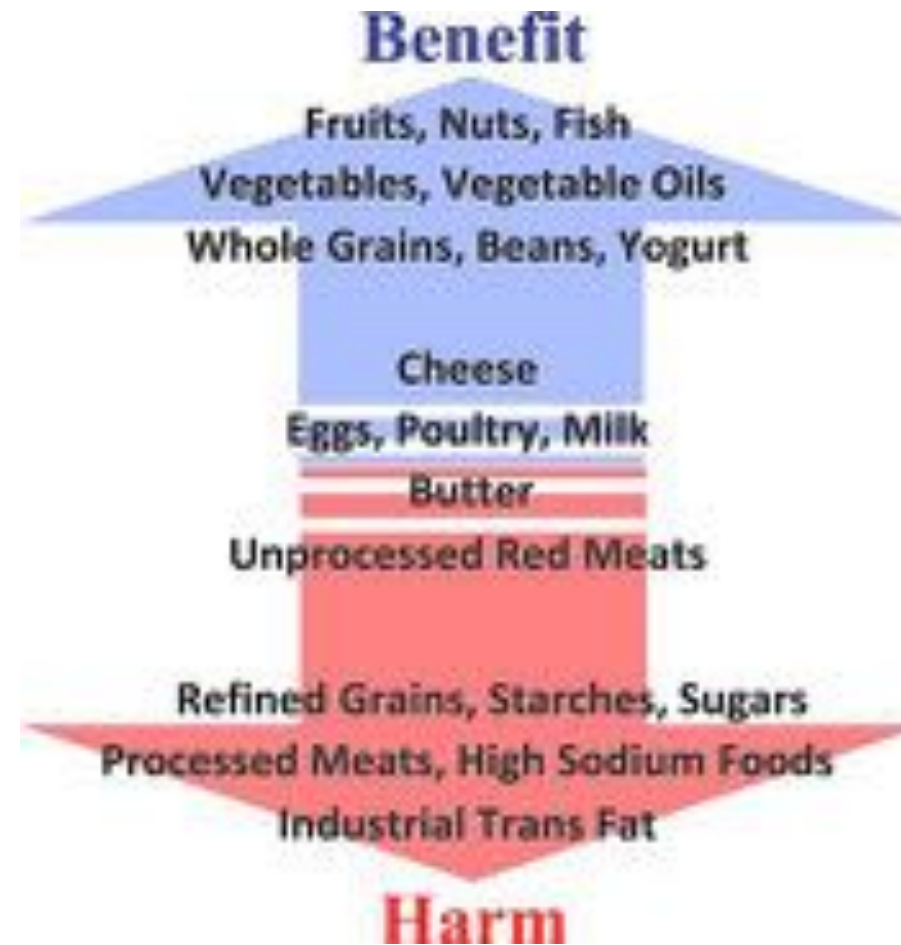
WHAT'S THE TAKE HOME MESSAGE?

NUTRITION COUNSELING BY U.S. PHYSICIANS LARGE GAPS, SLOW IMPROVEMENT

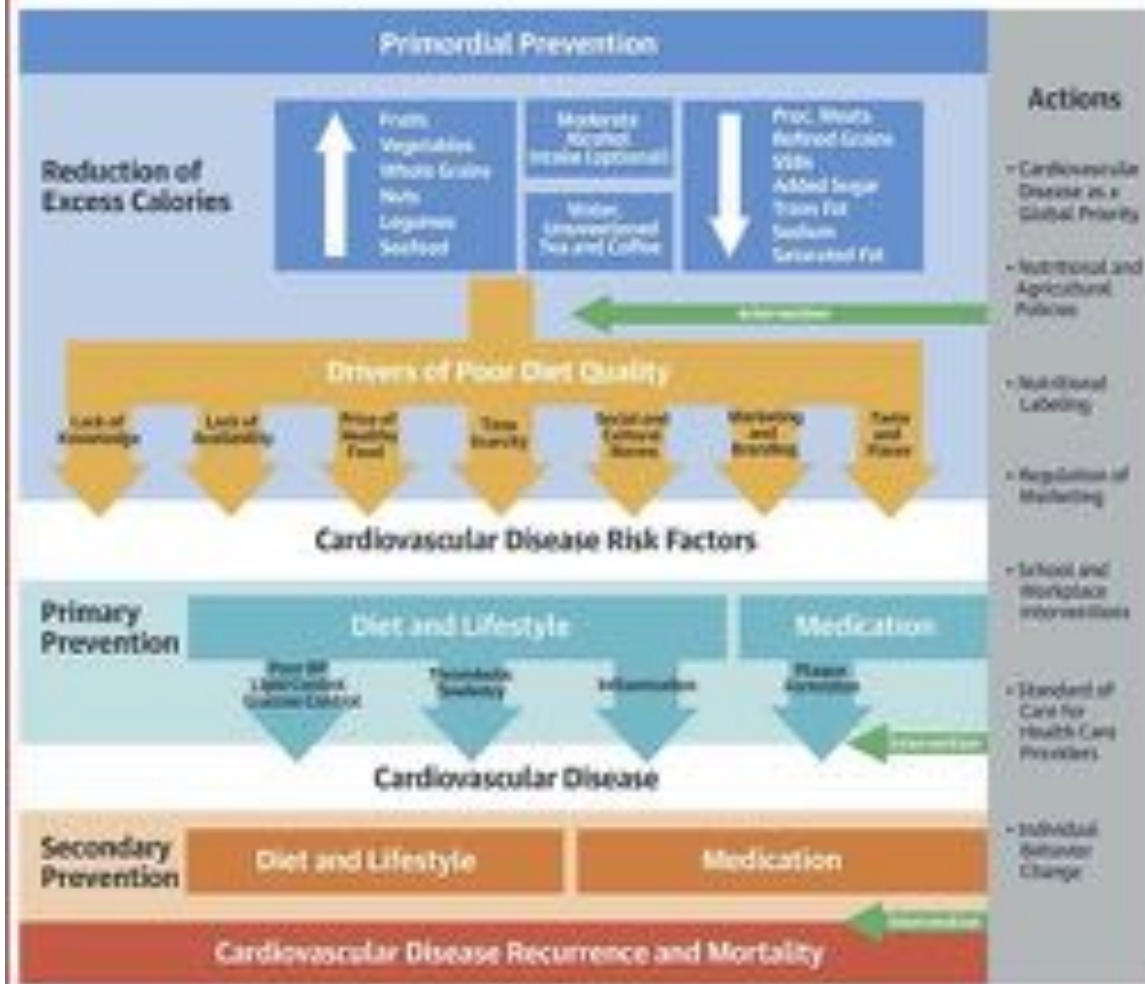
- NATIONAL HEALTH INTERVIEW SURVEY DATA OF >25,000 ADULTS WHO VISITED PHYSICIANS
- 2000 -23.7% REPORTED RECEIVING DIET COUNSELING AT VISITS 2011 – 32.6 %REPORTED RECEIVING DIET COUNSELING
- MORE COUNSELING IF OBESE OR MORE EDUCATED LESS COUNSELING IF UNINSURED OR LESS EDUCATED
- PHYSICIAN BARRIERS -LACK OF KNOWLEDGE-TRAINING AND ;ME

Ahmed, NU et al. Trends and disparities in prevalence of physician counseling on diet and nutrition among US adult population, 2000–2011. Prev Med 2016;89:70–75.

MODERN NUTRITION SCIENCE EVIDENCE



CENTRAL ILLUSTRATION: Flow Diagram of the Development of CVD and Possible Prevention by a Healthy Diet



Yu, E. et al. *J Am Coll Cardiol*. 2018;72(8):914-26.

Food & Nutrients



**GREEN
LIGHT**

EAT OFTEN



Yellow light

CAUTION



Red light

STAY AWAY

Food & Nutrients

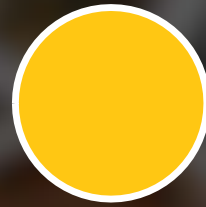


GREEN LIGHT

EAT OFTEN

- Whole grains
- Fruits and Vegetables
- Legumes
- Nuts
- Seeds
- Fish

Food & Nutrients



YELLOW LIGHT LIMIT

- Poultry
- Dairy
- Oils
- Eggs
- Alcohol

Food & Nutrients



RED LIGHT

- MINIMIZE
 - SALT
 - RED AND PROCESSED MEATS
 - SUGAR SWEETENED FOODS AND BEVERAGES
 - ARTIFICIAL SWEETENERS
 - REFINED GRAINS

QUESTIONS



@healthyheartdoc