

Chronic Disease Reversal Series

Reverse Your Heart Disease

Now!

Kirk Hamilton, PA-C

April 15, 2020



“THE POWER OF DIET TO REVERSE HOPELESS HEART DISEASE”
MICHAEL GREGER, MD – A PERSONAL STORY & LIFE’S CALLING



“FOOD ‘IS’ THE MEDICINE” @ nutritionfacts.org





YOU WILL LEARN...

- What we **believe** causes heart disease
- What we **know** reverses heart disease

YOU WILL BE GIVEN...

- The tools to **reverse heart disease**
- And how to use them **immediately**

WHAT ARE CARDIOVASCULAR DISEASES?



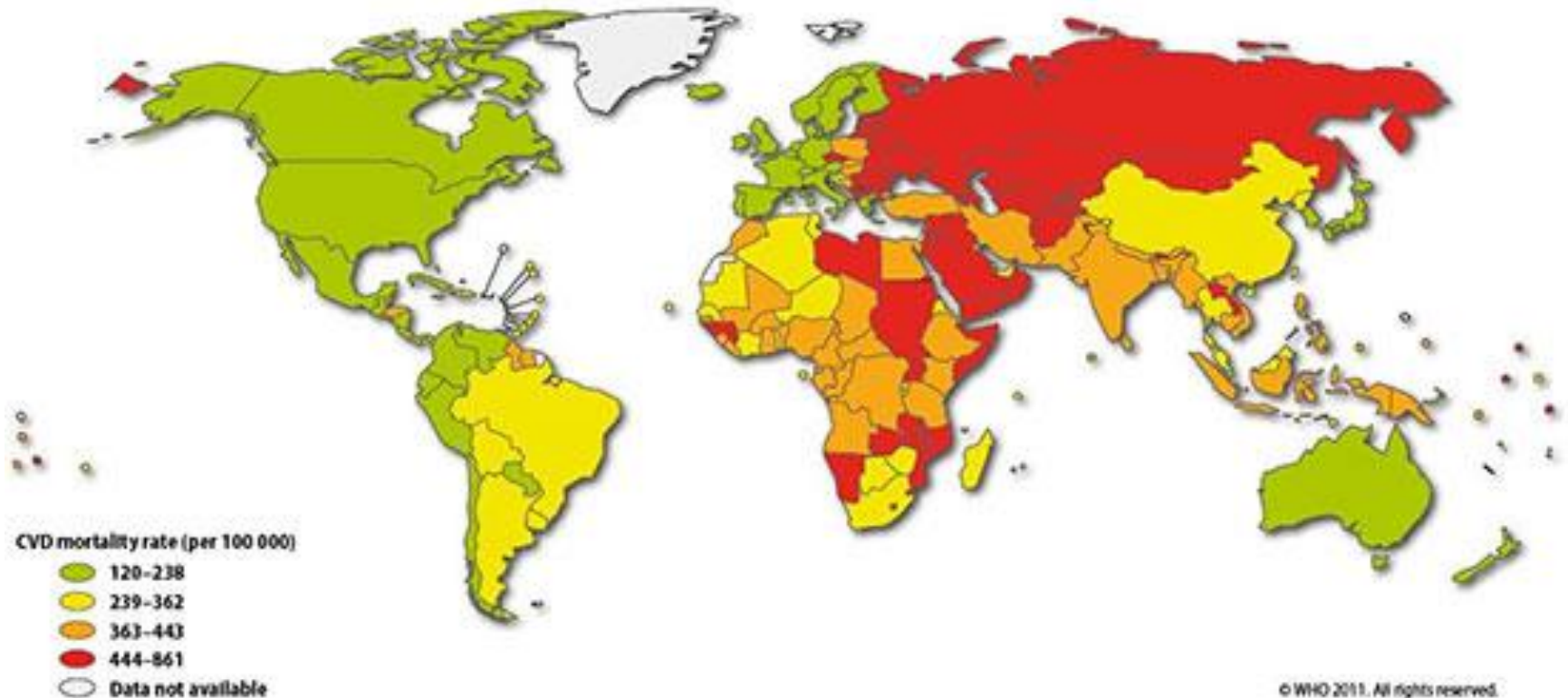
- **CORONARY HEART DISEASE**
disease of the blood vessels supplying the heart muscle
- **CEREBROVASCULAR DISEASE**
disease of the blood vessels supplying the brain
- **PERIPHERAL ARTERIAL DISEASE**
disease of blood vessels supplying the arms and legs
- **RHEUMATIC HEART DISEASE**
damage to the heart muscle and heart valves from rheumatic fever, caused by streptococcal bacteria
- **CONGENITAL HEART DISEASE**
malformations of heart structure existing at birth
- **DEEP VEIN THROMBOSIS AND PULMONARY EMBOLISM**
blood clots in the leg veins, which can dislodge and move to the heart and lungs

WHY REVERSE HEART DISEASE?

LEADING CAUSE OF DEATH IN THE WORLD



CARDIOVASCULAR DISEASES (CVDs) CAUSE 31% OF ALL DEATHS WORLDWIDE (17.5 MILLION IN 2012)
85% from Heart Attacks and Strokes



<http://www.who.int/mediacentre/factsheets/fs317/en/>

https://www.cdc.gov/dhbsp/data_statistics/fact_sheets/fs_women_heart.htm

15 LEADING CAUSES OF DEATH IN 2015

CENTERS FOR DISEASE CONTROL AND PREVENTION'S (CDC) NATIONAL CENTER FOR HEALTH STATISTICS



• 1	Diseases of heart.....	633,842
• 2.	Malignant neoplasms	595,930
• 3	Chronic lower respiratory diseases	155,041
• 4	Accidents (unintentional injuries)	146,571
• 5	Cerebrovascular diseases (stroke)	140,323
• ???	Adverse drug reactions (JAMA 1998;279(15)1200-1205).....	100,000
• 6	Alzheimer's disease.....	110,561
• 7	Diabetes mellitus	79,535
• 8	Influenza and pneumonia	57,062
• 9	Nephritis, nephrotic syndrome and nephrosis.....	49,959
• 10	Intentional self-harm (suicide)	44,193
• 11	Septicemia	40,773
• 12	Chronic liver disease and cirrhosis	40,326
• 13	Essential hypertension and hypertensive renal disease	32,200
• 14	Parkinson's disease.....	27,972
• 15	Pneumonitis Due to Solids and Liquids.....	19,803
• ...	All other causes	538,539

Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics

https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_06.pdf, page, 6 Nov 27, 2017

WHY REVERSE HEART DISEASE?

LEADING CAUSE OF DEATH IN THE USA



- **1 in 3 US deaths, 800, 000 Americans, die each year from heart disease, stroke and other CVDs**
- **1.5 million heart attacks and strokes each year**



- **1 in 6 US healthcare \$\$\$ is spent on CVDs**
- **Over \$320 billion in annual healthcare costs and lost productivity caused by CVDs**

WHY REVERSE HEART DISEASE? LEADING CAUSE OF DEATH IN THE USA OF MEN AND WOMEN



**1 in 3 adults have at least
one type of CVD**

WHY REVERSE HEART DISEASE?

LEADING CAUSE OF DEATH IN WOMEN IN THE USA



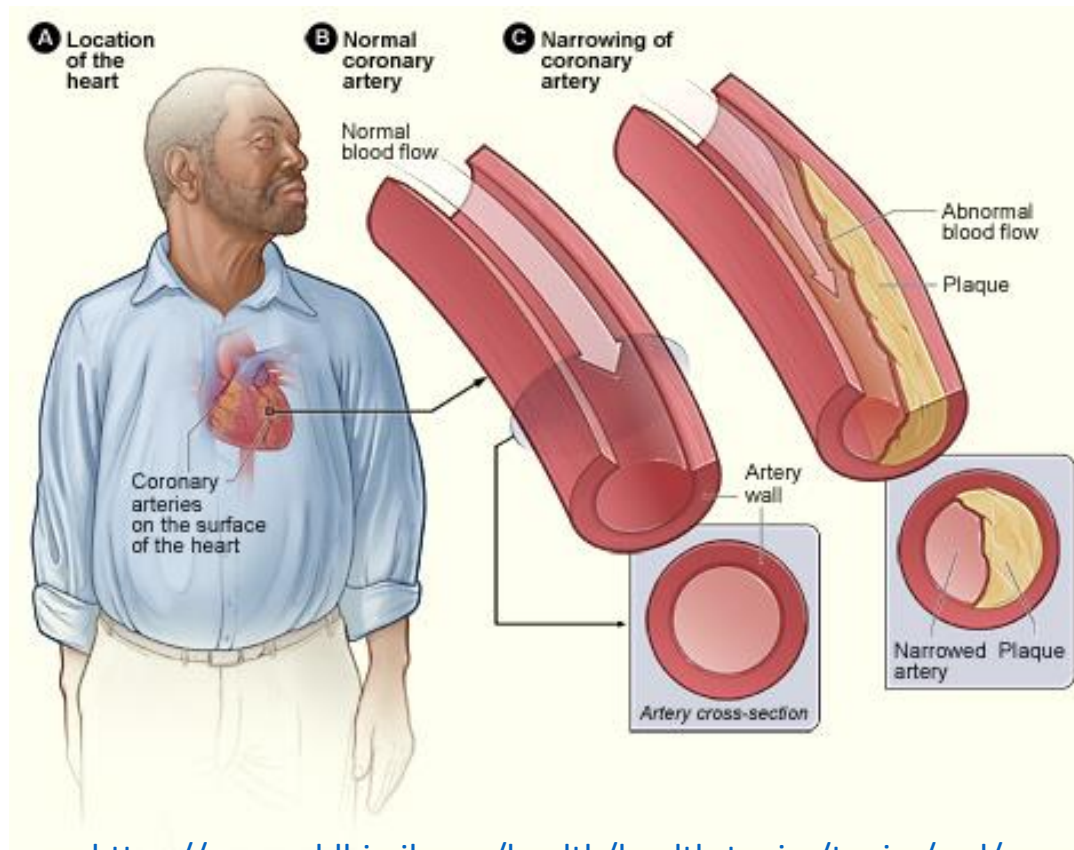
- Think that breast cancer is the #1 killer of women? **THINK AGAIN!** Heart disease is far more deadly by far.
- Heart disease is the leading cause of death for women in the United States, taking more female lives than all cancers, respiratory diseases and Alzheimer disease combined.¹ Nearly 420,000 women died of heart disease, while 40,500 died of breast cancer in the U.S. in 2008.
<https://www.your-heart-health.com/content/close-the-gap/en-US/heart-disease-facts/women.html>
- **Black women have a higher chance of dying from heart disease—and at a younger age—compared to white women**
- 49% of African American women over age 20 have some type of heart disease:
 - Clogged arteries in the heart, arms, or legs
 - Stroke
 - High blood pressure
 - Angina (chest pain)
- That means nearly **1 in every 2 Black women** in the U.S. has heart disease.
<https://bwhi.org/2018/02/12/heart-disease-black-women-big-issue-might-not-know/>

WHAT IS HEART DISEASE?

WAXY BUILDUP IN CORONARY ARTERIES



Coronary heart disease (CHD) is a disease in which a waxy substance called **plaque** builds up inside the coronary arteries.



<https://www.nhlbi.nih.gov/health/health-topics/topics/cad/>

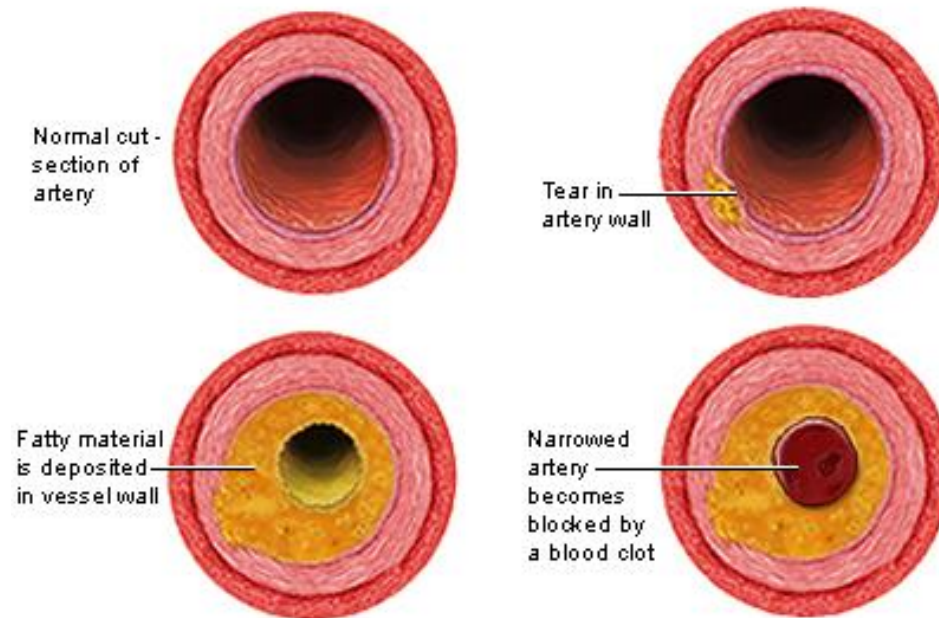
WHAT CAUSES HEART DISEASE?

CHOLESTEROL IS PART OF THE PROCESS



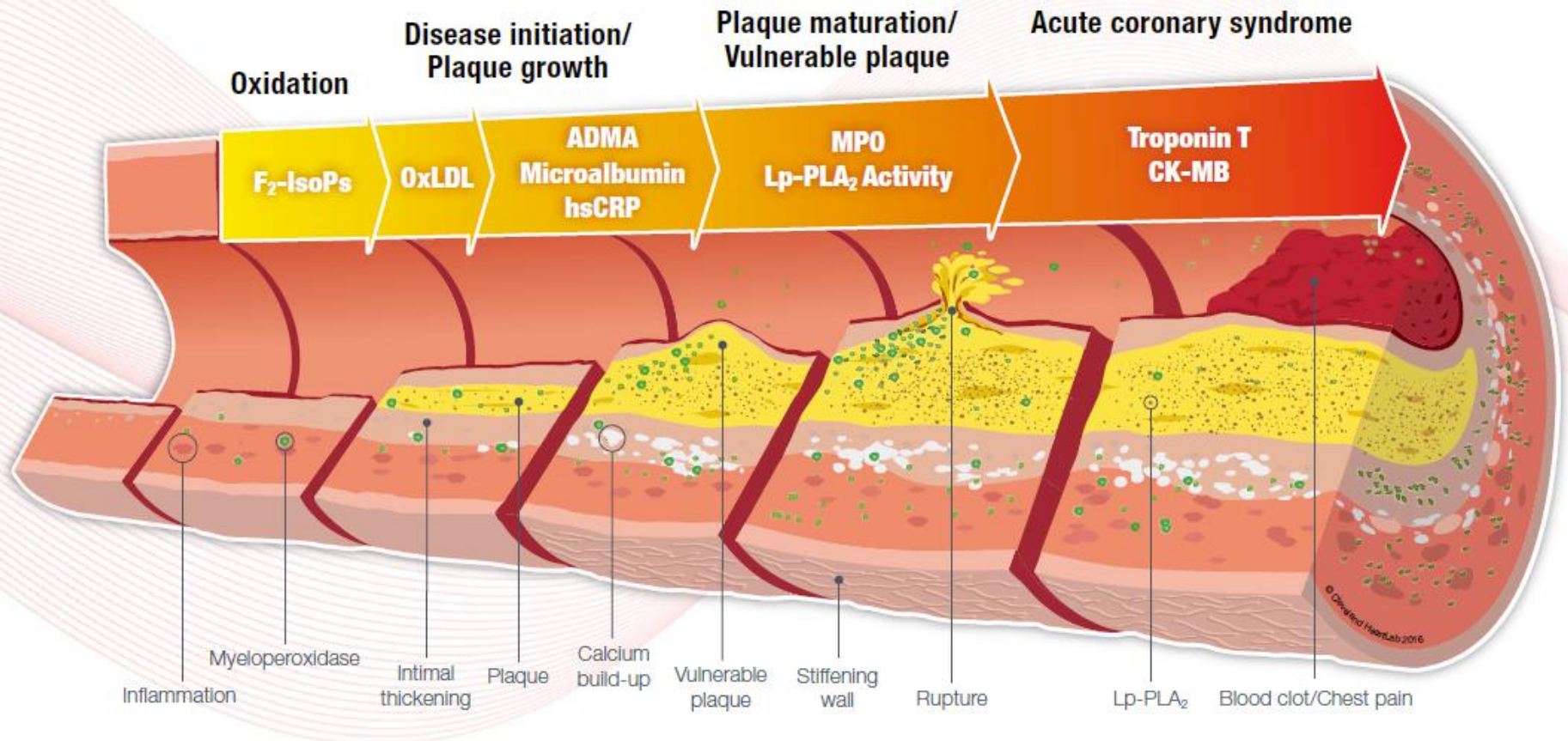
TOO MUCH CHOLESTEROL (? >150 MG/DL TOTAL?)

1. Cholesterol gets trapped in the sub-endothelial space
2. Cholesterol is part of the atherosclerotic plaque
3. Cholesterol crystals have “spikes” that can damage the artery
4. Plaque ruptures and clot blocks artery (heart attack, stroke, etc.)



WHAT CAUSES HEART DISEASE?

INFLAMMATION!...



WHEN DOES HEART DISEASE START? AT A VERY YOUNG AGE!



PLAQUE HAS BEEN FOUND IN:

- **In utero** – “Maternal hypercholesterolemia is associated with greatly increased fatty streak formation in human fetal arteries and accelerated progression of atherosclerosis during childhood.”
FASEB J September 2002 16:1348-1360.
- **Young children** – “Fatty streaks, the earliest progenitor lesions, are present from early childhood and well established by 20 or 30 years of age.” Is Atherosclerosis a Pediatric Disease. Endotext, 2016, Wilson DP / Korean Circ J. 2010 Jan; 40(1): 1–9. Am J Med Sci. 2001 Nov;322(5):293-300.
- **In U.S. GIs coming back from Vietnam and Korea** – “Autopsies performed on casualties of the Korean War revealed coronary artery involvement in 77.3% of the hearts studied, and data after the Vietnam War noted the presence of atherosclerosis in 45% of casualties with severe disease in 5%.” J Am Coll Cardiol.1993 Aug;22(2):459-67.



ATHEROSCLEROSIS

AT WHAT AGES DOES HEART DISEASE OCCUR?



EARLY ATHEROSCLEROSIS IS FOUND IN VIRTUALLY ALL AMERICANS

“Atherosclerosis begins in youth. Fatty streaks and clinically significant raised lesions increase rapidly in prevalence and extent during the 15- to 34-year age span. Primary prevention of atherosclerosis, as contrasted with primary prevention of clinically manifest atherosclerotic disease, must begin in childhood or adolescence. [Strong JP et al., JAMA 1999 Feb 24;281:727-35](#)

RISK FACTORS FOR HEART DISEASE?

RISK FACTORS THAT INCREASE ARTERIAL INFLAMMATION



- Processed/refined food diets low in fiber and nutrient density, but high in refined carbs, fats, oils, sugars, animal products and become more sedentary (all industrializing countries do this as their economies grow)
- High blood cholesterol
- High blood triglycerides
- High fasting insulin levels
- High blood sugar / diabetes
- High blood pressure
- Obesity/overweight
- Excess alcohol intake
- Sedentary lifestyle
- Smoking/Tobacco use
- Stress
- Mouth infections (see Dr. Jeffrey Dach podcast and link below)
- Gut permeability issues (see [**Low Level Endotoxemia LPS Theory of Coronary Artery Disease – read and listen to podcast with Dr. Jeffrey Dach**](#))

ERECTILE DYSFUNCTION – THE FASTEST WAY TO A MAN'S (AND WOMEN'S) HEART!



- **Sexual Medicine Society of North American**
Men with erectile dysfunction should be worked-up for cardiovascular disease
- **Harvard Health Letter**
Erectile dysfunction often a warning sign of heart disease
- **Cleveland Clinic**
Heart Disease & Erectile Dysfunction
There is a very strong link between erectile dysfunction and heart disease. Having ED is as much a risk factor for heart disease as a history of smoking or a family history of coronary artery disease.
- **Mayo Clinic**
Erectile dysfunction: A sign of heart disease?
The same process that creates heart disease may also cause erectile dysfunction, only earlier.
- **Stanford University**
Stanford Expert Explains What Erectile Dysfunction Really Means (video 3:17 min)
“...Anything that is good for your heart is going to be good for your penis...”
“ED)... precedes cardiovascular disease by 3-4 years...”
- **UC San Francisco**
Erectile Dysfunction Causes
“The greatest medical risk factors for erectile dysfunction include diabetes mellitus, HEART DISEASE, hypertension and having a decreased high-density lipoprotein level.”
- **University of California Berkeley Wellness**
Men and Sex: The ED & Heart Link
Both ED and impaired heart function can be caused by reduced blood flow...ED is often a reliable predictor of heart disease and stroke. “A man’s heart is connected to his penis in more than a figurative way—... since from a physiological point of view, an erection is certainly an affair of the heart.”
- **Yale Medicine**
Erectile Dysfunction
“Often, erectile dysfunction can be a symptom of a heart condition, diabetes, or high blood pressure... Our patients often undergo a full body exam to determine whether they have early cardiovascular disease, vascular disease or a metabolic condition such as diabetes...”

WHAT CAUSES HEART DISEASE? INFLAMMATION!

WHAT WE KNOW ABOUT CHOLESTEROL LEVELS



- **HALF OF HEART ATTACKS OCCUR BETWEEN 150-200 mg/dl**
- Cholesterol (total) below < 150 mg/dl - CAD rarely occurs (William Castelli, MD, Framingham Heart Study)
- Average cholesterol in rural China, 127 (China Project); Tarahumara Indians, 120 ([Am J Clin Nutr.1982 Apr;35\(4\):741-4.](#)); no heart disease
- Average cholesterol in early Okinawan Centenarians 150s (Okinawa Diet Plan, 2005, changing now 170s)
- Cholesterol CAD reversal levels $Tc < 150$, $LDL < 80$ by diet can reverse CAD (Caldwell B. Esselsytn, MD)
- If we lower cholesterol by the same amount by diet or drugs you get twice the shrinkage of lesion with the diet therapy (William Castelli, MD, Framingham Heart Study)

HOW DO WE TREAT HEART DISEASE?

WHAT DOESN'T WORK IN THE LONG RUN?



- **STATINS** (take CoQ10 200 mg, blood level > 2.0 ug/ml)
Coronary calcium score "0" – no benefit from statins - [Radiol Bras. 2017;50\(3\):182–189](#).
Statins used in primary prevention lead to a significant decrease in overall mortality in those with CVD risk factors. [Minerva Cardioangiol. 2017;65\(5\):531–538](#) (debatable)
Statins decrease CVD events in CVD patients. [Chonnam Med J. 2013 Apr; 49\(1\): 1–6](#)
(Use with CoQ10, diet can drop cholesterol ↓↓↓ in days)
Statins ↓ CVD events, including death, in secondary prevention for both men and women. Statins ↓ CVD events in primary prevention in men and women, but debate ↓ all-cause death, especially in women. [Tex Heart Inst J. 2013; 40\(3\): 288–289](#).
- **FISH OIL???**

The REDUCE-IT trial showed that use of icosapent ethyl 2 g twice daily was superior to placebo in reducing TGs, CV events, and CV death among patients with high TGs and either known CV disease or those at high risk for developing it, and who were already on statin therapy with relatively well-controlled LDL levels. Bhatt DL, Steg G, Miller M, et al. Effects of Icosapent Ethyl on Total Ischemic Events: From REDUCE-IT. [J Am Coll Cardiol 2019;73:2791-802](#)

Results from both primary and secondary prevention trials have generally failed to show a beneficial effect of omega-3 PUFA supplementation. [Curr Treat Options Cardiovasc Med. 2016 Nov;18\(11\):69](#). (Too low a dose? Duration of trials too short?)

Primary and secondary prevention trials in the last 6 years report null effects of supplementation and question low dose omega-3 PUFAs in reducing cardiovascular events <1gm omega-3 FAs. [Curr Treat Options Cardiovasc Med. 2016; 18\(11\): 69](#).

NIACIN???

No incremental clinical benefit despite significant improvements in HDL cholesterol and triglyceride levels in patients with coronary artery disease. [New England Journal of Medicine 2011;365:2255-67](#).

- **ASPIRIN**

ASA benefits primary and secondary prevention. [Clin Med Res. 2014 Dec; 12\(3-4\):147–154](#). Low-dose aspirin was associated with a 55% increased risk of major GI bleeding and 54% increased risk of intracranial bleeding. [JAMA 2012, June 6;307:2318](#).

HOW DO WE TREAT HEART DISEASE?

WHAT DOESN'T WORK IN THE LONG RUN



BYPASS SURGERY

Vein graft failure occurred in 787 of 1829 patients (43%) in 12-18 months.
[Circulation. 2012;125:749-756](#)

STENTS

Coronary stents do not improve the long-term survival rates of heart patients but they "do provide a significant early and sustained reduction in the need for subsequent procedures to re-open the treated artery," Duke cardiologist, David Kandzari, AHA Meeting.

"...The trouble, we would think, is that propping open a coronary artery with a stent is like putting a finger in the dike of atherosclerosis. What is needed is to halt or reverse the atherosclerotic process entirely and that cannot be done by a small mechanical device."

Barbara K. Hecht, Ph.D
Frederick Hecht, MD
Medical Editors, MedicineNet.com

<http://www.medicinenet.com/script/main/art.asp?articlekey=40430>

WHAT CAUSES HEART DISEASE?

WE ALSO KNOW...



LITTLE HEART DISEASE IS FOUND IN CULTURES WHO CONSUME PREDOMINANTLY PLANT-BASED DIETS

- Papua New Guinea Highlands

P N G Med J. 2001 Sep-Dec;44(3-4):135-50.
J Chronic Dis. 1973 May; 26(5):265-90.
<https://pubmed.ncbi.nlm.nih.gov/2503808/>.

- Rural China

<https://pubmed.ncbi.nlm.nih.gov/9860369/>.

- Central Africa

Int J Epidemiol. 2012 Oct;41(5):1221-5. Am J Cardiol. 1960 Jan;5:41-7.

- Tarahumara Indians

Am J Clin Nutr. 1982 Apr;35(4):741-4. N Engl J Med. 1991 Dec 12;325(24):1704-8.

- Blue Zones (Ikaria, Greece; Sardinia, Italy; Nicoya, Costa Rica; Okinawa, Japan;)* ** *

Am J Lifestyle Med. 2016 Jul 7;10(5):318-321. Ann N Y Acad Sci. 2007 Oct;1114:434-55.

WHAT CAUSES HEART DISEASE?

A CLUE ABOUT THE CAUSE OF CVD

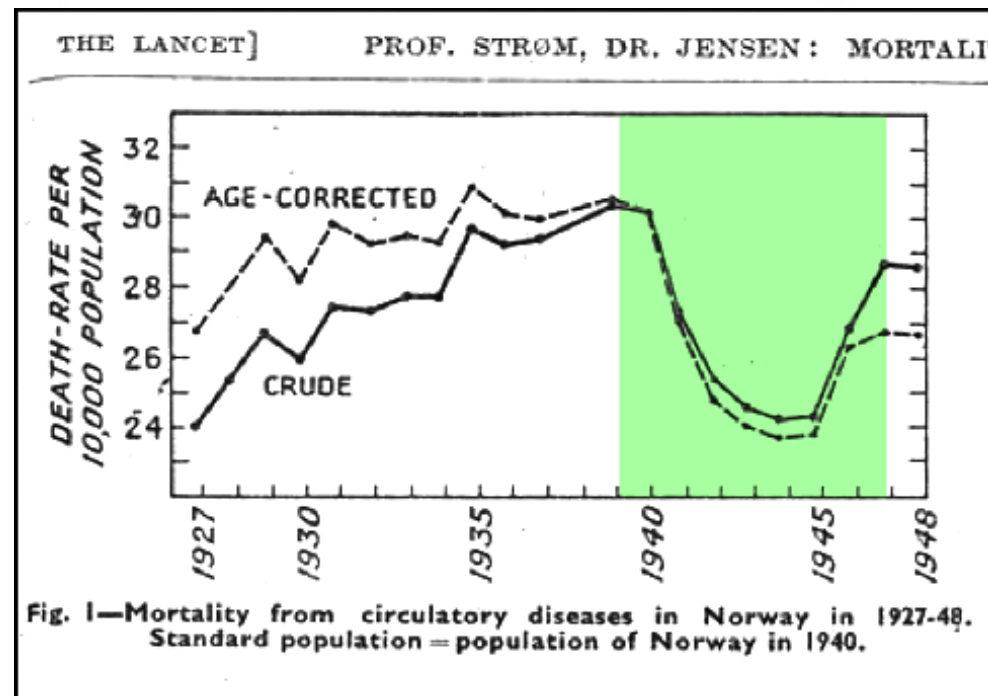


NORWAY: WORLD WAR II

Nazis took livestock away

- Death rate from CVDs dropped dramatically during occupation, then increased after the war
- During WWII 1) people ate a lot **less animal foods** and 2) ate **less calories** which also may have contributed to reducing the death rate from CVD

[Lancet; 1951 Jan 20; \(6647\): 126-9](#)



LESTER MORRISON, MD & NATHAN PRITIKIN

DIET HEART DISEASE REVERSAL PIONEERS



Nathan Pritikin started following the work of Dr. Lester Morrison in California, a cardiologist who in the early 1950s had placed 50 of his seriously ill heart attack patients on a diet mimicking the low-cholesterol, low-fat wartime food rationing diet that many Europeans survived on. Another 50 cardiac patients, also very ill, continued eating the typical American high-fat diet. The latter was the study's control group.

By 1955, the cholesterol levels of the experimental low-fat, low-cholesterol group had dropped from an average of 312 to 220. The control group's cholesterol levels had remained the same. Nearly 60% of the men in the experimental group were still alive compared to 24% of the control group. By 1960, all of the patients in the control group had died; 38% of the low-fat, low-cholesterol group were still alive.

Morrison LM. Reduction of mortality rate in coronary atherosclerosis by a low cholesterol-low fat diet. Am Heart J. 1951 Oct;42(4):538-45. doi: 10.1016/0002-8703(51)90150-0. PMID: 14877748.

Morrison LM. Diet and atherosclerosis. Ann Intern Med. 1952 Dec;37(6):1172-80. doi: 10.7326/0003-4819-37-6-1172. PMID: 13008294.



CAN HEART DISEASE BE REVERSED?



Lester Morrison, MD, cardiologist, 60-70 years ago *Am. Heart J.* 1951;42: 538-545

http://articles.latimes.com/1991-05-28/news/mn-2586_1_lester-morrison

Nathan Pritikin, engineer, 45 years ago (pritikin.com)

Dean Ornish, MD (*Dr. Dean Ornish's Program for Reversing Heart Disease*, 1996)

Caldwell Esselstyn, MD (*Prevent and Reverse Heart Disease*, 2007)

HOW DO WE REVERSE HEART DISEASE?

Dean Ornish, MD Ornish.com



- EXERCISE
- DIET
- GROUP THERAPY
- STRESS MANAGEMENT

UCLA Health, Los Angeles; St. Jude Medical Center, Fullerton;
Cardiovascular Center of Marin, Marin; UC San Diego Health – La Jolla, CA

HOW DO WE GET STARTED?

THE ORNISH PROGRAM: SESSIONS



72-HOUR INTENSIVE LIFESTYLE INTERVENTION PROGRAM

- Medicare approved
- Two 4-hour sessions for nine weeks
- One hour each:
 - Exercise
 - Diet lecture/meal
 - Group session
 - Stress reduction session

Love Yourself

www.ornish.com

HOW DO WE GET STARTED?

THE ORNISH PROGRAM: WHAT TO AVOID



72-HOUR INTENSIVE LIFESTYLE INTERVENTION PROGRAM

- Meat, poultry, fish and any products made from these foods are eliminated
- **AVOID PROCESSED CARBOHYDRATES**
 - **Refined carbs**
 - Sugar
 - White flour
 - White rice
 - Concentrated sweeteners
- **Reduce added sugars (2 servings/day)**
 - Maple syrup
 - Agave
 - Honey
 - White or brown sugar
 - Non-fat sweets
 - Refined carbohydrates

HOW DO WE GET STARTED?

THE ORNISH PROGRAM: WHAT TO EAT



72-HOUR INTENSIVE LIFESTYLE INTERVENTION PROGRAM

- Eat plant foods
 - Fruits
 - Vegetables
 - Whole grains
 - Legumes
 - Soy
- Eat mostly plant proteins
 - Tofu/tempeh/edamame(soy)
 - Beans and legumes
- Non-fat dairy foods (cheese, yogurt), including egg whites ≤ 2 servings/day
- Refined carbohydrates limited to 2 servings/day

HOW DO WE GET STARTED?

THE ORNISH PROGRAM: WHAT TO EAT



72-HOUR INTENSIVE LIFESTYLE INTERVENTION PROGRAM

- 4 grams of good fats (36 calories)
 - Fish oil or from plankton (algae)
 - Flax seed oil
 - Nuts and seeds
- Less than 10% of calories from fat naturally in grains, vegetables, fruit, beans, legumes, soy foods — and small amounts of nuts & seeds (no added fats, oils, avocados, coconut & olives to a mostly plant-based diet)
- Less than 10 mg/day of dietary cholesterol
- Sodium: moderate salt – use vinegar and citrus
- Caffeine (low)
 - 2 cups green tea, black tea or decaf coffee; or 1 cup or less of coffee a day
- Alcohol one serving a day: 1.5 ounces liquor, 4 ounces wine or 12 ounces beer.
- Low-dose multivitamin and mineral supplement with B-12 (without iron, if not of childbearing age)

HOW DO WE GET STARTED?

THE ORNISH PROGRAM: WHAT TO EAT



72-HOUR INTENSIVE LIFESTYLE INTERVENTION PROGRAM

- Three or less servings from low-fat foods or nuts can be included per day; 1 serving (≤ 3 grams of fat/serving) equals:

- 5 almonds
- 9 pistachios
- 1 whole walnut
- 3 pecan halves
- 2 cashews
- 6 peanuts (no shell)
- 2.5 tsp flax seeds, ground
- 2 tsp chia seeds or sunflower seeds, shelled
- 1.5 tsp pumpkin seeds

[“Can lifestyle changes reverse coronary heart disease?: The Lifestyle Heart Trial.” *Lancet* 1990;336: 129-133](#)

[“Intensive Lifestyle Changes for Reversal of Coronary Heart Disease.” *Am. Med. Assn.* 1998;280\(23\): 2001-2007](#)

ORNISH PROGRAM (Ornish.com→ Menu→ Research) **REVERSES CHRONIC DISEASES & AGING?**



- **Aging:** ↑telomerase ↑lifespan
- **Aging:** ↑telomere length ↑lifespan
- **Blood Pressure:** ↓ medication
- **Cancer/Chronic Disease:** PCa - ↑ 500 genes changes (↑ preventive genes; ↓ disease causing genes)
- **Cholesterol:** ↓ LDL 40%
- **Depression:** ↓ 73% non-depressed
- **Diabetes/Pre-diabetes:** ↓ A1c, ↓ meds, ↓ CAD Risk
- **Heart Disease:** ↓ CAD – reversed
- **Prostate Cancer:** ↓ PSA, ↓ conventional Tx, ↓ PCa cell growth in culture
- <https://www.ornish.com/proven-program/the-research/>

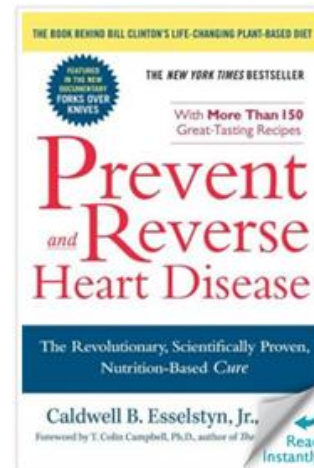
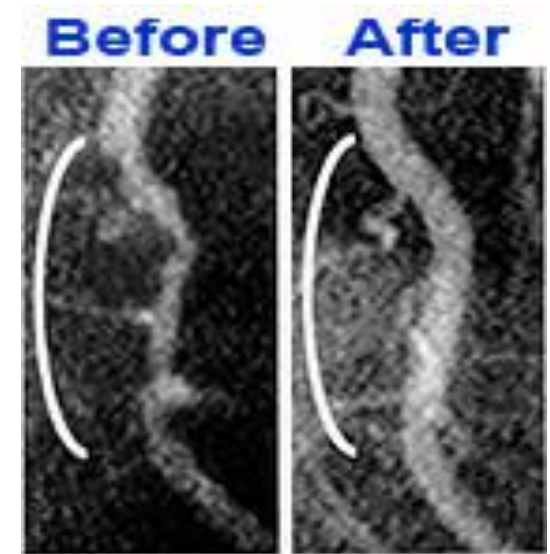
HOW DO WE GET STARTED?

THE ESSELSTYN PROGRAM



SERUM CHOLESTEROL <150 MG/DL AND LDL < 80 MG/DL

- 5 hour intensive workshop
 - 3 hour lecture on the cause and treatment of heart disease
 - 1 hour on diet and plant-based meal
 - 1 hour of live testimonials
- Avoid foods that injure the endothelium
 - Any added oils
 - Fish
 - Fowl
 - Meat
 - Dairy
 - Nuts
 - Caffeinated coffee
 - Sugar



www.dresselstyn.com

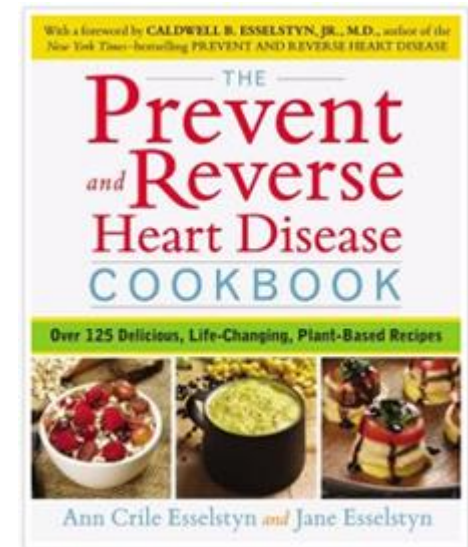
HOW DO WE GET STARTED?

THE ESSELSTYN PROGRAM



- Eat **unprocessed** or “Intact” carbohydrates
 - Whole grains
 - Legumes, beans, lentils, peas
 - Starchy vegetables – yams, sweet potatoes, potatoes, squash, etc.
 - Non-starchy vegetables – greens leafy, green, orange, red, yellow vegetables
 - Whole fruit
- 1-2 tablespoons of flax or chia seeds daily
- Chew your food – don’t drink it
- A Strategy to Arrest and Reverse Coronary Artery Disease: A 5 –Year Longitudinal Study of a Single Physician’s Practice *The Journal of Family Practice* 1995 December; 41(6): 560-68
- Updating a 12-Year Experience With Arrest and Reversal Therapy for Coronary Heart Disease (An Overdue Requiem for Palliative Cardiology) *The American Journal of Cardiology* 1999 August 1; 84:339-34

Additional Scientific Papers on Heart Disease Reversal by Caldwell B Esselstyn, MD



www.dresselstyn.com



THE JOURNAL OF
**FAMILY
PRACTICE**

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MD; Gina Gendy, MD;
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The authors reported no
potential conflict of interest
relevant to this article.

ORIGINAL RESEARCH

A way to reverse CAD?

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

ABSTRACT

Purpose ▶ Plant-based nutrition achieved coronary artery disease (CAD) arrest and reversal in a small study. However, there was skepticism that this approach could succeed in a larger group of patients. The purpose of our follow-up study was to define the degree of adherence and outcomes of 198 consecutive patient volunteers who received counseling to convert from a usual diet to plant-based nutrition.

Methods ▶ We followed 198 consecutive patients counseled in plant-based nutrition. These patients with established cardiovascular disease (CVD) were interested in transitioning to plant-based nutrition as an adjunct to usual cardiovascular care. We considered participants adherent if they eliminated dairy, fish, and meat, and added oil.

Results ▶ Of the 198 patients with CVD, 177 (89%) were adherent. Major cardiac events judged to be recurrent disease totaled one stroke in the adherent cardiovascular participants—a recurrent event rate of .6%, significantly less than reported by other studies of plant-based nutrition therapy. Thirteen of 21 (62%) nonadherent participants experienced adverse events.

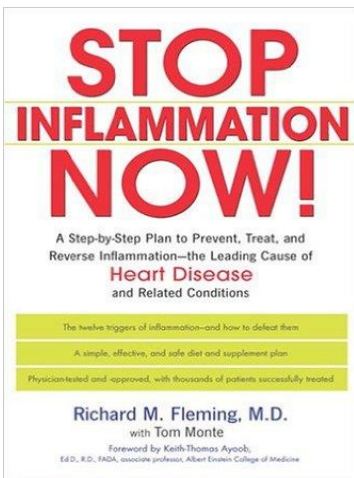
Conclusion ▶ Most of the volunteer patients with CVD responded to intensive counseling, and those who sustained plant-based nutrition for a mean of 3.7 years experienced a low rate of subsequent cardiac events. This dietary approach to treatment deserves a wider

test to see if adherence can be sustained in broader populations. Plant-based nutrition has the potential for a large effect on the CVD epidemic.

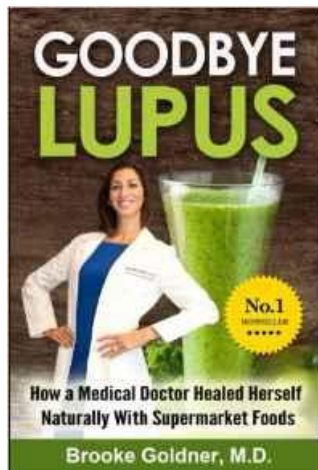
In a 1985 program initiated at the Cleveland Clinic, we examined whether plant-based nutrition could arrest or reverse advanced coronary artery disease (CAD) in 22 patients.¹ One patient with restricted myocardial blood flow documented by positron emission tomography (PET) showed reperfusion on a repeat scan just 3 weeks after starting our nutritional intervention (FIGURE 1).² Within 10 months of the start of treatment, another patient with severe right calf claudication and a quantifiably diminished pulse volume experienced total pain relief and exhibited a measurably increased pulse volume amplitude.³ Thus encouraged, we followed the small cohort of patients (adding cholesterol-lowering drugs in 1987) and reported results after 5 and 12 years of follow-up.^{1,3} Of the 22 patients, 17 were adherent to the protocol, and their disease progression halted. In 4 of the 12, we angiographically confirmed disease reversal,⁴ which can be striking (FIGURE 2).⁴

The significance of these findings. CAD remains the number one killer of women and men in western civilization despite 40 years of aggressive drug and surgical interventions.⁵ These approaches can be lifesaving in the midst of a heart attack. However, the

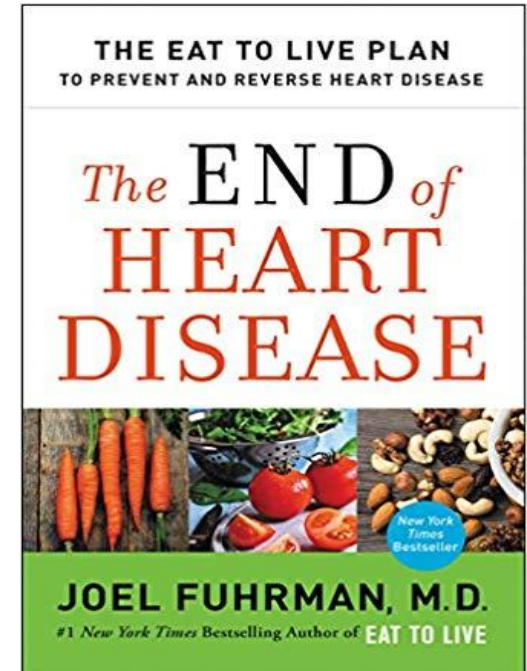
HOW DO WE STOP INFLAMMATION? EAT MORE RAW VEGETABLES (GREENS) & FRUIT



STOP INFLAMMATION NOW! – A
Step by Step Plan to Prevent,
Treat, and Reverse Inflammation
– The Leading Cause of Heart
Disease and Related Conditions
by Richard Fleming, MD
<http://amzn.to/2lArG2i>



Goodbye Lupus: How a Medical
Doctor Healed Herself Naturally
With Supermarket Foods by Brook
Goldner, MD
<http://amzn.to/2n1Fz6z>



The End of Heart
Disease: The Eat to Live
Plan to Prevent and
Reverse Heart Disease by
Joel Fuhrman, MD
<https://amzn.to/2RC7ex8>

Oklahoma City Orthopedic Surgeon Jim Conway, MD... (2:48 min video)
Avoids Bypass Surgery, Reverses His Heart Disease, and Recommends
A Plant-Based Diet to His Orthopedic Patients Primarily with Shoulder Disease

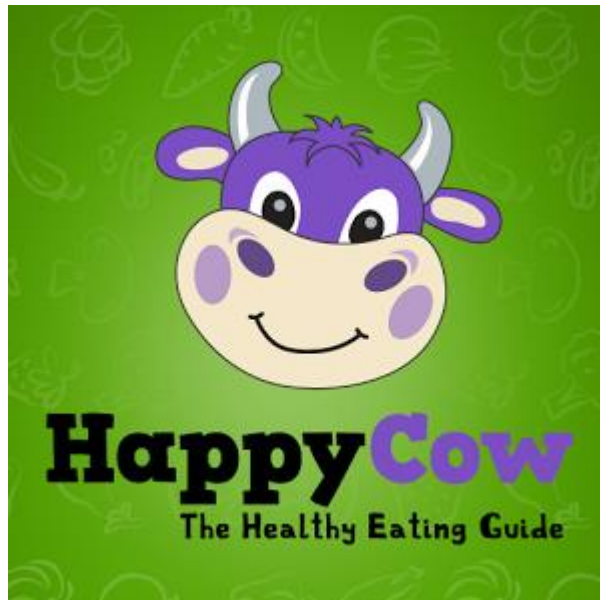


“Heart Disease Reversal” resource page at... **HealthyLivingforBusyPeople.com**



- <http://www.healthylivingforbusyypeople.com/heart-disease-reversal/>
- “Quick Start” for “Heart Disease Reversal” – PDF
- Scientific Papers - PDFs
- Books link to order
- **“Physician Heart Disease Reversal Videos”**
- Podcasts (cardiologist, surgeons and patients)
- Heart disease coaching
- Plant-based recipes (free) online access
- Plant-based cooking courses online
- Plant-based restaurant App
- Plant-based meals shipped to your door step
- Plant-based immersion programs

QUICKSTART “HELPERS” EATING OUT



www.happycow.net



“QUICK START” HEART DISEASE REVERSAL DIET

SHOPPING LIST



SHOP FOR AND EAT ONLY WHOLE PLANT FOODS:

All vegetables (starchy or non-starchy), especially green leafy vegetables, fruit (especially berries), whole “intact” grains, beans/legumes, lentils, peas, yams, sweet potatoes, potatoes, squash. Flaxseed or chia seeds 1-2 tbs/d. A palm full or less of raw nuts daily.

AVOID:

Dairy products, eggs, poultry, meat, fish, added oils, caffeinated beverages, sugar and processed/refined carbohydrates.

HERBS/SPICE:

You are encouraged to use as many different herbs and spices as you desire.

SALT:

If hypertensive don't add salt.

UNPROCESSED WHOLE PLANT-BASED FOODS

...Animal Food as Condiment if At All...



Plant-Based Dietitian's Food Plate®

By: Julieanna Hever, M.S., R.D., C.P.T.
www.PlantBasedDietitian.com

Leafy, Green Vegetables

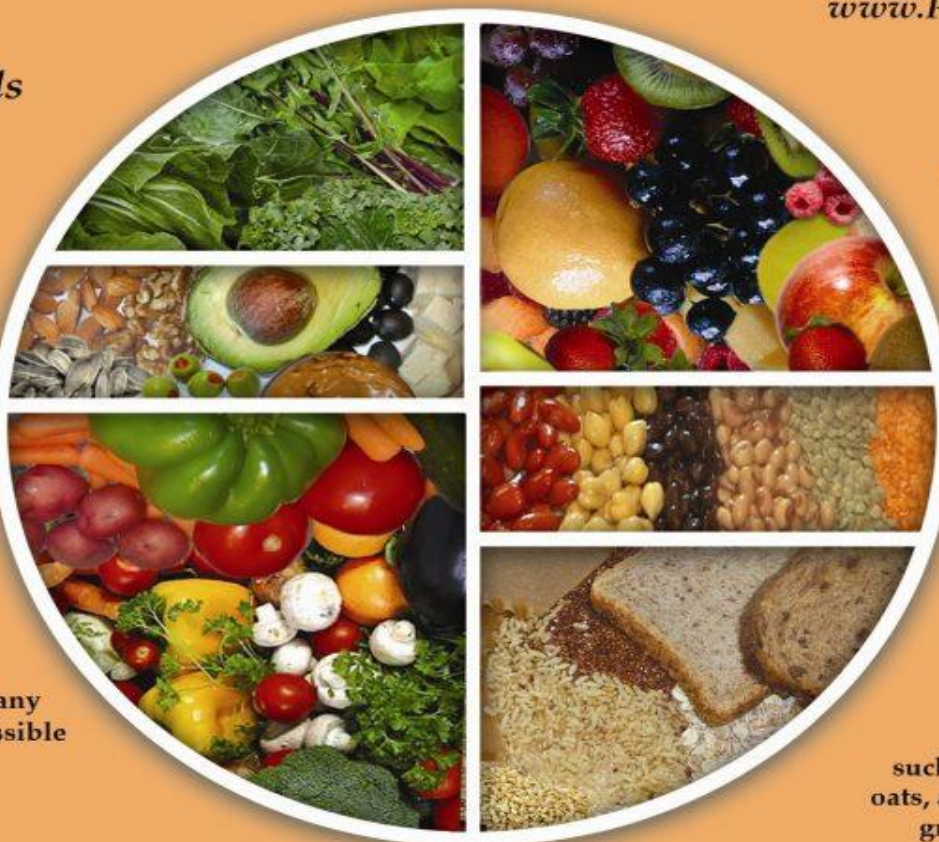
such as collards, spinach, and kale
Eat at least 2-3 servings
(1 cup raw or 1/2 cup cooked) per day.

High-fat whole foods

such as: avocados, nuts,
olives, seeds;
whole food-sweetened treats;
dairy substitutes such as oat,
almond, rice, and soy
use sparingly.
Consume 1 to 2 TB.
seeds per day
such as ground flax,
hemp, or chia.

Vegetables

(all types,
including starchy)
Eat as much and as many
different colors as possible
each day.



Fruit (all types)

Consume 2-4 servings
(1 piece or 1/2 cup)
everyday.

Legumes

(beans, peas, and lentils)
Consume 2-3 servings
(1/2 cup) every day

Whole grains

such as brown rice, barley, quinoa,
oats, amaranth, whole wheat, whole
grain pasta, and sprouted grains.
6-11 servings (1/2 cup cooked or
1 slice whole grain bread) daily.

“QUICK START” HEART DISEASE REVERSAL DIET

SAMPLE MENU



- **BREAKFAST** – Cooked “intact” whole grains for breakfast with unsweetened nut milk, berries, 1-2 tbs ground flaxseed, 3-4 walnuts halves (i.e. steel cut oats, rolled oats, quinoa, brown rice, barely, etc)
- **LUNCH** – Large vegetable salad – greens, vegetables, beans, oil-free dressing OR vegetable soup with beans, lentils, peas and/or whole grains with vegetable broth
- **DINNER** – Half plate vegetables, mostly greens steamed or broiled, ½ plate whole grains and/or legumes and/or yam, sweet potato, potato, squash and/or cooked whole grains
- **SNACKS** – whole fruit, oil-free bean dip, raw vegetables ≤ palm full of raw nuts daily
- **DRINK** – Water, green tea, unsweetened nut milks, decaffeinated coffee

KIRK'S 21 DAY "TRANSITION" HEART REVERSAL DIET

KIRK HAMILTON, PA-C



HealthyLivingForBusyPeople.com presents...

Kirk's 21 Day Healthy Living Program for Busy People

How to have great energy, mental clarity, be fit, and achieve peak performance while traveling or at home



KIRK'S 21 DAY HEALTHY LIVING PROGRAM FOR BUSY PEOPLE



- **Week 1**

- **1 large salad daily** – as the meal (oil free dressings only) (81-88, 135-7, 140, 144-148)
- **No dairy products AT ALL** (10, 89-94, 115-117)
- **2-3 whole fruits daily (1 cup berries)**, (140, 142, 144-145, 153) or **Greens/Fruit (75/25) Smoothie 64 oz with ¼ cup flax or chia seeds**
- **Walks 15-30 minutes daily** (39, 159-167)

- **Add: Week 2**

- **½ - 1 cup cooked beans daily** (145-146)
- **No added oils to foods or eat foods made with added oils** (4, 5, 9, 12, 139, 143, 149)
- **No processed carbohydrates** (only whole or sprouted grains, starchy vegetables, fruit & no added sugars) (6,11,12, 24, 37-38, 94-100, 106-114, 116, 136, 140-142,148)
- **Sit still for 15-30 minutes daily** (188-193)

- **Add: Week 3**

- **Eat off BED Diet food list x 2 weeks** (118,119, 135, 201-204)
- **No more than a palmful or 'deck of cards' of animal food daily (Preferably None)** (xvii-xviii, 5, 6, 9, 38, 67-88,135)
- **1-2 palmfuls of raw nuts or seeds daily** (142, 147-148)
- **Strength training 3-4 days weekly 15-30 minutes** (167-177)
- **After 30 or 60 days eliminate palm full of animal food for 90 days**

PAN-ASIAN MODIFIED MEDITERRANEAN DIET RULES

BY STEPHEN SINATRA, MD, CARDIOLOGIST



- PAMM Diet 40 to 45 % low-glycemic carbohydrates; 30-35 % healthy fats; 20 to 25 % protein. Organic as much as possible.
- Increase your intake of:
- Slow-burning, low-glycemic vegetables, such as asparagus, broccoli, kale, Brussels sprouts, and spinach
- Legumes, such as lentils, soybeans, and chickpeas (help lower insulin levels)
- Onions and garlic (help lower lipids and blood pressure)
- Fresh herbs, such as rosemary, thyme, and basil
- Fruits, such as cherries, peaches, plums, strawberries, blueberries, apricots, pears, and apples
- Essential fatty acids (EFAs) and protein, such as wild cold-water fish and organic eggs
- Fermented soy products, such as tempeh
- Fish, especially fatty ones like wild salmon
- Healthy fats, such as olive, sesame, walnut, avocado, and flax oils
- Nuts and seeds, including walnuts, almonds, chestnuts, and flaxseed
- Cottage cheese, feta cheese, and grated Parmesan

PAN-ASIAN MODIFIED MEDITERRANEAN DIET RULES

BY STEPHEN SINATRA, MD, CARDIOLOGIST



Decrease your intake of:

- Foods containing refined white flour or sugar, such as breads, biscuits, and bagels
- Partially hydrogenated oils, found in commercially prepared crackers, cookies, chips, and other snacks
- Starchy vegetables such as corn, peas, and carrots
- Canned vegetables, because they're usually very high in sodium
- Processed fruit juices, which are often loaded with sugars
- Omega-6 oils, such as corn, safflower, soy, and canola

www.drsinatra.com/what-is-the-best-heart-healthy-diet-plan

MEDITERRANEAN DIET, THE PREDIMED STUDY AND HIGH FAT VS. LOW FAT DIETS



- MedD - Olive oil, red wine & fish (whole food plant-based diet)
- Mediterranean Diet – reduced risk to cardiovascular disease
- Blue Zones – Ikaria, Greece; Sardinia, Italy – plant-based mostly plus olive oil, red wine, small amount of fish
- Three other Blue Zones don't use olive oil; varying fat use
- Mediterranean Diet reversing proven heart disease? Not yet!
- **PREDIMED** (2013) – large Spanish Study (7447) compared high fat (41%) nuts (1 oz/30 gm) or olive oil (>4 tbsp) diets to “low fat” (37%) at risk for CVD. Less cardiac events occurred in the nut and olive oil groups after 4.8 years than in the “low fat” group

Difference between Ornish & Esselstyn (“Is Oil Healthy?”) studies and PREDIMED.

- **1)** PREDIMED ALL GROUPS WERE HIGH FAT (41%, 41% & 37%) vs. Ornish & Esselstyn both 10% fat diets
- **2)** PREDIMED study patients **AT RISK for CVD** vs. Ornish & Esselstyn's patient had **DOCUMENTED CVD**
- **3)** 4.8 years MedD EVOO 3.8%, MedD Nuts 3.4% & ContD 4.4% vs .6% ED & 62% controls

PREDIMED – Provegetarian Food Pattern & Death

AMJ Clin Nutr 2014;100(suppl):320s-8s



- **PREDIMED Participants** – 7216 subjects over 4.8 years
- **ProVeg** – fruit, vegetables, nuts, cereals, legumes, olive oil, potatoes (positively weighted) **Vs.** animal fats, eggs, fish, dairy products, meats and meat products (negatively weighted)
- 323 deaths follow-up (76 CVD, 130 cancer, 117 non cancer or CVD)
- **ProVeg Food Pattern** was associated with lower mortality (RR)
- As the ProVeg score increased over 5 quintiles the death rate decreased in a similar fashion (14.9/1000 low adherence to 8.7/1000 for high adherence)
- CVD deaths were strongly & inversely correlated with ProVeg score
- Non-significant inverse associations were found for cancer, noncancer and noncardiovascular deaths

“In summary, we provide evidence to support that the simple advice to increase the consumption of plant-derived foods with compensatory reductions in the consumption of foods from animal sources confers a survival advantage to older subjects at high cardiovascular risk.”

CARDIOVASCULAR SUPPLEMENTS

A REVIEW...



- Aged garlic extract 1200 mg 2 x daily (reverse soft plaque)
- Arterasil 1-2/d (↓ soft plaque; ↑ artery elasticity; ↓ ED)
- Berkeley Life Nitric Oxide Support 2/d (↓ BP; ↑ EF/FMD)
- Berberine 150 mg 2 x daily (lower lipids)
- Carnitine 1000-4000 mg/d (check TMAO levels) (enhance energy production)
- Coenzyme Q10 100-500 mg/d (ubiquinol) (energy production myocyte)
- EPA/DHA (algae) 2-4 gm/d (anti-inflammatory, lower triglycerides)
- Magnesium 200-600 mg/d (vasodilator, anti-arrhythmic)
- Pantethine 300 mg 3 x day (lower cholesterol)
- Policosanol 5-10 mg/d (lower cholesterol)

CARDIOVASCULAR SUPPLEMENTS CONTINUED

A REVIEW...



- Red rice yeast 1200 mg 2 x daily (cholesterol lowering)
- Ribose 5 gm 3 x daily (energy production myocyte)
- Vitamin B1 50-100 mg (glucose utilization for energy)
- Vitamin B2 50-100 mg (energy production myocyte)
- Folic acid – 5MTHF 1 mg (lower homocysteine)
- Vitamin B6 25-50 mg (lower homocysteine)
- Vitamin B12 1000 mcg (lower homocysteine)
- Vitamin C 1000 mg (vasodilator, antioxidant)
- Vitamin D 5000-10,000 IU (anti-inflammatory, immune enhancer, heart failure)

CHELATION THERAPY – INTRAVENOUS EDTA

Removal of Toxic Metals (Interview with Dr. Gervasio Lamas)



- **Effect of disodium EDTA chelation regimen on cardiovascular events in patients with previous myocardial infarction: the TACT randomized trial.**
[JAMA. 2013 Mar 27;309\(12\):1241-50. doi: 10.1001/jama.2013.2107.](#)
- 40 infusions of a 500-mL chelation solution (3 g of disodium EDTA, 7 g of ascorbate, B vitamins, electrolytes, procaine, and heparin) (n=839) vs placebo (n=869) and an oral vitamin-mineral regimen vs an oral placebo. Infusions were administered weekly for 30 weeks, followed by 10 infusions 2 to 8 weeks apart.
- **MAIN OUTCOME MEASURES:**
- Previous MIs occurred a median of 4.6 years before enrollment. Median age was 65 years, 18% were female, 9% were nonwhite, and 31% were diabetic. The primary end point occurred in 222 (26%) of the chelation group and 261 (30%) of the placebo group. There was no effect on total mortality. The effect of EDTA chelation on the components of the primary end point other than death was of similar magnitude as its overall effect.
- **CONCLUSIONS AND RELEVANCE:**
- Among stable patients with a history of MI, use of an intravenous chelation regimen with disodium EDTA, compared with placebo, modestly reduced the risk of adverse cardiovascular outcomes, many of which were revascularization procedures. These results provide evidence to guide further research but are not sufficient to support the routine use of chelation therapy for treatment of patients who have had an MI.

TACT 1 STUDY RESULTS

POSITIVE OUTCOME AND TOXIC METAL EXPOSURE?



- **STUDY RESULTS**
There was a reduction of the combined clinical endpoint for death, heart attack, stroke, bypass, angioplasties, hospitalizations for unstable angina in all subjects who previously had a heart attack, which was a “spectacular” result.
- A third of the patients had diabetes (633 patients) in TACT 1 and the effect of the EDTA chelation was very positive, reducing the combined cardiovascular end point by 41%; reducing the risk of death from all causes over 5 years by 43%; reducing the risk of another heart attack in these diabetics by 50%.
- Eighty-three percent of these patients were taking statins. There was no reduction of effect with or without statins. So, chelation works by a different mechanism than statins. Compared to the old statin studies (statin vs. a placebo) the effect size of the chelation was much greater.
- **HOW DOES CHELATION WORK – TOXIC METAL EXCRETION?**
Measuring metals in the urine before and after the IV EDTA challenge you will find after individuals will excrete 3000-4000% more of these metals into the urine.
- Lead runs with calcium and goes initially in the red blood cell, then after one month goes into bone. Lead has a half-life in bone of 30 years. About 50% of cadmium is stored in your kidneys and the rest is the liver, lungs, neural tissue, the soft organs essentially.
- You don’t want any metals in your body. Lead slowly leaches out of bone. In older people lead will have blood levels of 1-2 micrograms/dl. The EPA says this is acceptable. Lead is very “vasculo-toxic.” It poisons the endothelium, the lining of the arteries. It replaces calcium in intracellular reactions and “gums-up” the works, is an oxidant stressor and increases oxygen free radicals.
- All of these toxic metals increase oxidative stress. Each metal has their own individual metabolic mechanism of cellular poisoning. Diabetics live in a state of high oxidative stress and may be more susceptible to the toxic effects of heavy metals.
- Lead and cadmium effect the acetylation of histones and may “gum up” how your DNA is transcribed (created).
- We all have these toxic metals being taken up by our bodies. These metals may be causing or contributing to disease and health professionals are not paying any real attention to this problem and have no real knowledge how this toxic metal burden is contributing to common diseases.
- Cadmium and lead are just two of 5-10 toxic metals seen frequently in the urine upon EDTA IV provocation.
- Dr. Lamas’s focus is to look at the effect of toxic metals and chelation with respect to cardiovascular diseases which he believes is significant and can be potentially treated. To look at the effect of toxic metals as a global health problem is beyond the scope of his investigations, but the environmental and health problems from global toxic metal burden are probably significant.

CARDIOVASCULAR TESTS

A REVIEW... Inflammation Testing Cleveland Heart Lab



- Total cholesterol < 150 mg/dl, LDL < 100 mg/dl, HDL > 50 mg/dl
- Triglycerides < 100 mg/dl
- Triglyceride:HDL ratio < 2-3 > 4-5 increase risk
- Cholesterol particle number <1000 optimal
- Cholesterol particle size – smaller LDL particles more dangerous < 500
- Cholesterol larger, buoyant LDLs less dangerous
- Homocysteine < 7 umol/l toxic amino acid increase stroke risk
- LpPLA2 < 123 nmol/l marker of plaque activity
- Myeloperoxidase <470 pmol/L – enzyme related to plaque instability
- ADMA (asymmetric dimethylarginine) < 100 ng/ml (decreases NO)
- Macroalbumin <3.5 men; <7.5 women
- HS-C reactive protein <1 mg/L
- Insulin < 5 uIU/mL, HgA1C < 5.6%
- Omega Check (> 5.5 , OMG 6/3 < 4.5 Cleveland Heart Lab)

CARDIOVASCULAR TESTS

A REVIEW...



- Coronary Calcium Score – 0/no plaque; 1-10 minimal plaque; 11-100 mild plaque & CT Angio www.calciumscan.com
- Carotid Intimal Media Thickness (CIMT) – an ultrasound measure of the carotid intima media thickness that correlates well with coronary artery disease
- Endothelial function www.Endothelix.com – how the artery responds after occlusion – open rapidly and robustly
- Increased arterial elasticity and heart rate variability (pulse wave velocity; Max/Pulse www.longlifecardio.com
- PULS CARIDAC TEST – A blood test that measures the body's immune response to endothelial damage to predict Acute Coronary Syndrome – Heart Attack <http://www.pulstest.com/>
- MaxPulse – finger probe tests for PWV, arterial stiffness & Heart Rate Variability www.longlifecardio.com
- SphygmoCor® XCEL PWA/PWV – aortic pressure, central blood pressure, pulse wave velocity, Augmentation Index www.atcormedical.com

REVERSING HEART DISEASE

CONCLUSIONS



Right Now We Know...

- Heart disease is preventable
- Heart disease is reversible
- A low fat, low cholesterol, whole food plant-based diet has been proven to work for over 40 years
- Societies that eat high amounts of animal products and added fats, oils, sugars and low amounts of fiber and exercise get lots of heart disease
- Societies that eat high amounts of unprocessed carbohydrate and fiber-rich whole foods, vegetables, some fruit and nuts/seeds along with movement throughout their day get little heart disease
- Some people with high cholesterol don't get coronary artery disease
- Coronary calcium scoring and risk of heart attack does not always correlate with cholesterol levels

REVERSING HEART DISEASE

CONCLUSIONS



Questions To Be Answered...

- Could you still REVERSE heart disease with a higher amount of natural plant fats within a WFPBD (nuts, seeds, olives, avocados, coconut, etc.)?
- Could you still REVERSE heart disease with a small amount of animal food per day (3-4 oz) plus a WFPBD?
- Could you still REVERSE heart disease adding olive oil, fish oil, coconut oil, avocado oil (i.e. any free oil) to a WFPBD?
- Can you REVERSE heart disease with a WFPBD and added supplements (i.e. aged garlic extract, Arterossil, Berkley Life Nitric Oxide Support, etc.)?
- Is coronary artery disease caused by an infectious process in the artery wall do to leaky a gut, infected teeth that occurs from lifestyle and diet?
- Do toxic metals increase inflammation and CAD?



- “If I had to get one message across to folks about “not letting their culture hold your heart hostage” it really would be to get the understanding, particularly if you are in control of your family’s diet, if I could get all of the people in the room to recognize that they are in control of the cardiac events for their entire family when they make shopping and cooking decisions. If we could just get that into the mind of the American people we could turn this thing around completely.”...
- **Kim Allan Williams, Sr., M.D.,** Past President, American College of Cardiology, James B. Herrick Professor, Chief, Division of Cardiology, Rush University Medical Center Chicago, Illinois.

REVERSING HEART DISEASE, HEART FAILURE, DIABETES & OBESITY

By A Whole-food Plant-based Diet – “The New Cardiology” (8:20 min)

Baxter Montgomery, MD, Cardiologist, Houston, Texas



Secret of Long Life In Okinawa **How It Can Be! (3:00 min)**



THANK YOU!

KIRK HAMILTON, PA-C



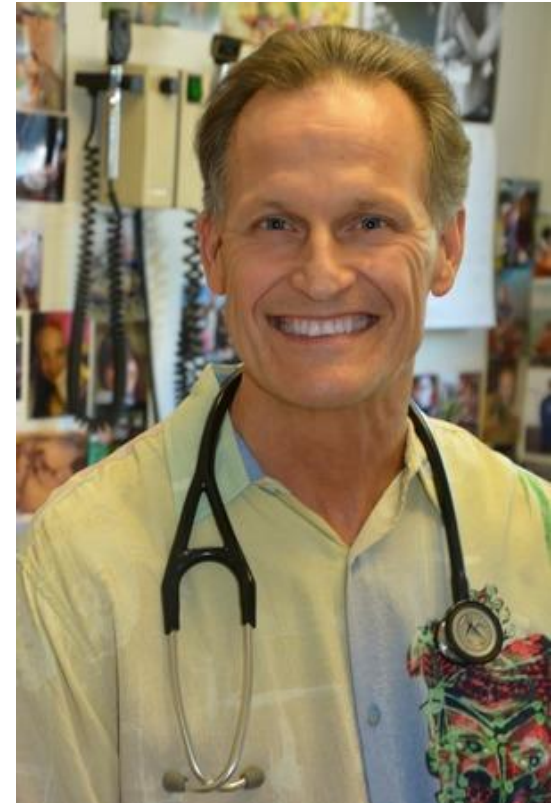
- Please visit
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- Reverse Heart Disease Now -
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krhammer@surewest.net