By Mary G. Enig, PhD, and Sally Fallon

Epidemic of Modern Heart Disease

1921

First recorded Myocardial Infarction (MI) in US

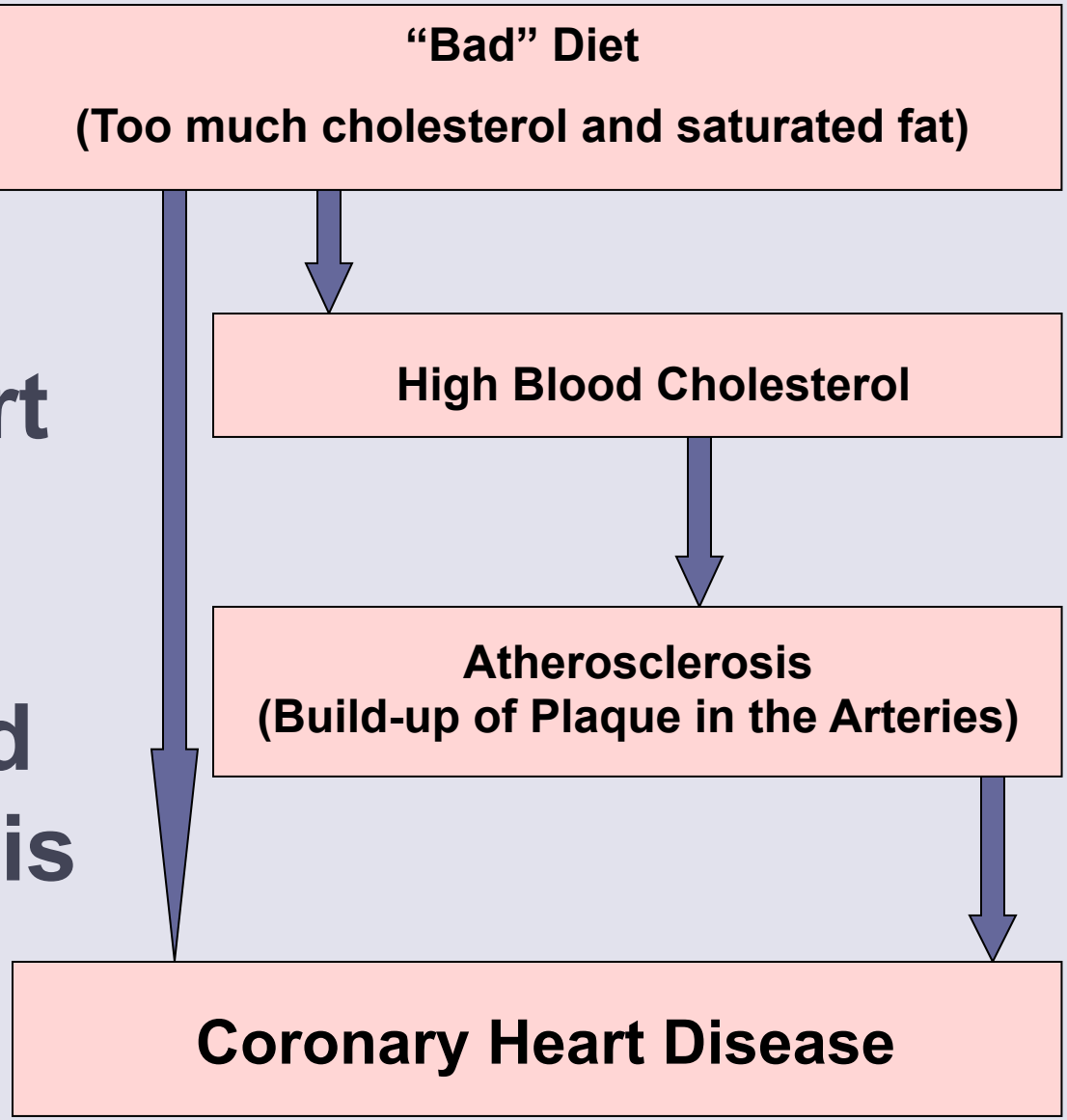
1930

3000 US deaths from Myocardial Infarction

1960

500,000 US deaths from Myocardial Infarction

The Diet-Heart Theory or The Lipid Hypothesis



Lande and Sperry 1936

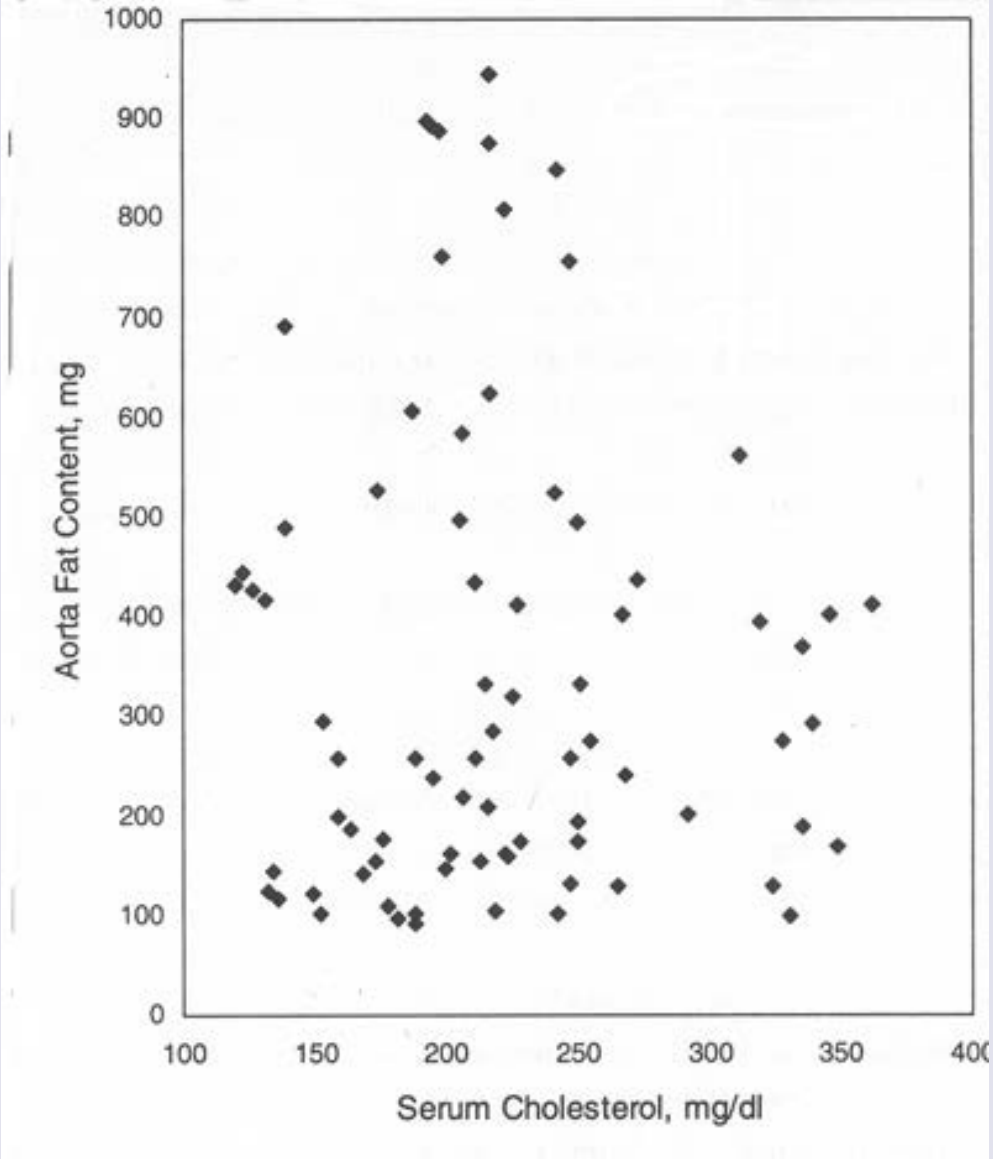
No correlation between cholesterol levels and atherosclerosis.

Note:
120 mg/dl = 3.1 mmol/L

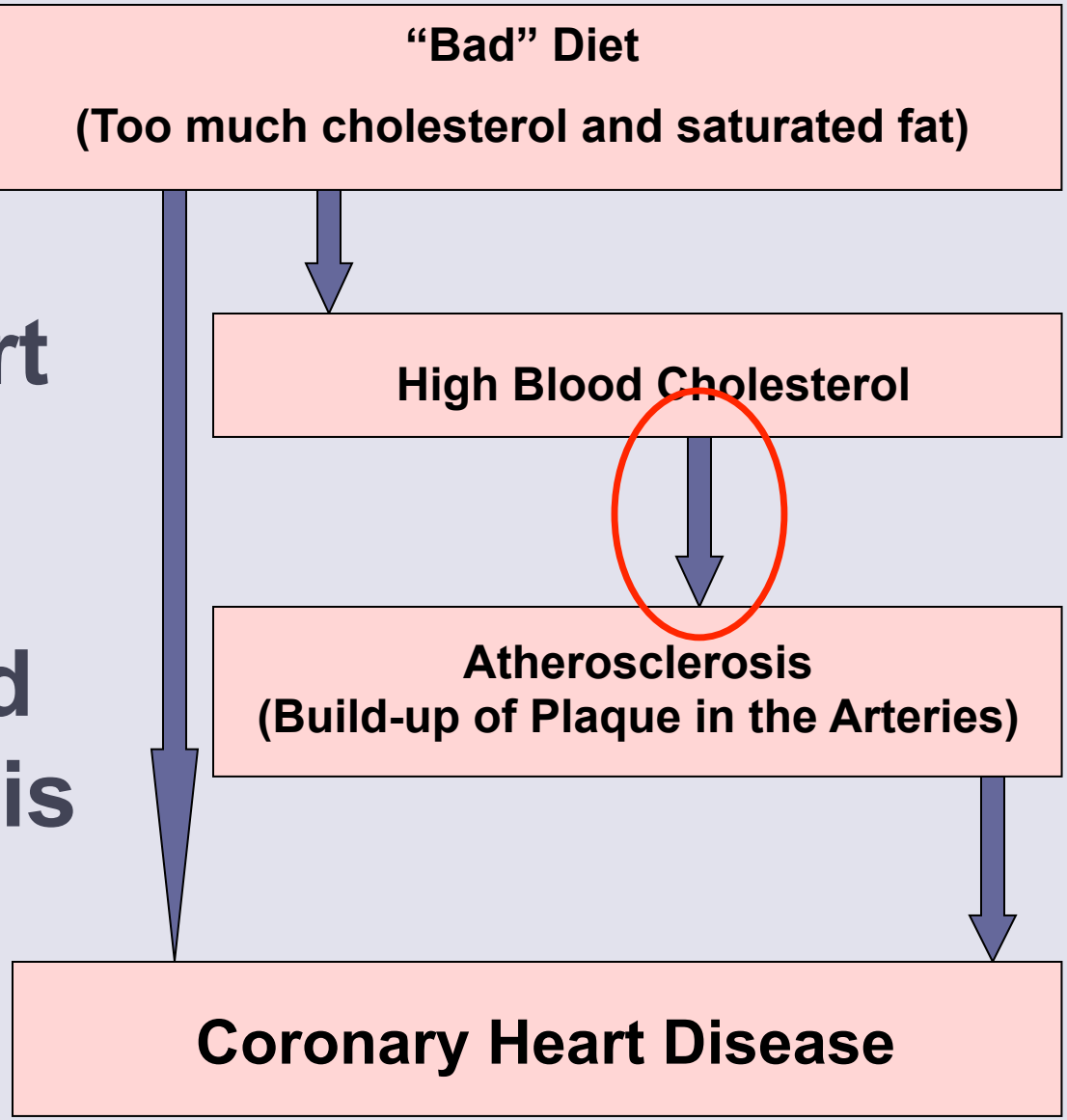
240 mg/dl = 6.2 mmol/L

400 mg/dl = 10.3 mmol/L

Archives of Pathology
22, 301-312, 1936



The Diet-Heart Theory or The Lipid Hypothesis



1957: The Anti-Coronary Club

GROUP OF NY BUSINESSMEN, 40-59, placed on "Prudent Diet" of

corn oil and margarine	instead of butter
cold breakfast cereals	instead of eggs
chicken and fish	instead of beef

CONTROL GROUP of the same age ate eggs for breakfast and meat three times a day.

RESULTS IN 1966: Prudent Dieters had average serum cholesterol of 220 (5.6), compared to 250 (6.5) in controls.

SURPRISING DOWNSIDE: EIGHT deaths from heart disease among Prudent Dieter group, and NONE among controls.

DIET-HEART STUDY CANCELLED: NHLBI organized National Diet-Heart Study involving one million men to compare Prudent Diet with one high in meat and fat. Pilot study involving 2000 showed Prudent Diet worthless. Diet Heart Study abandoned "for reasons of cost."

Bulletin NY Academy of Medicine 1968

Coronary Heart Disease Policy and the Edible Oil Industry

REMOVED REFERENCE: In 1965, Dr. Fred Mattson of Procter and Gamble (producer of vegetable oil products) told AHA to change its Diet/Heart statement, removing any reference to the *trans* fatty acids.

ALTERED DOCUMENT: The altered official document encouraged consumption of partially hydrogenated fats.

SUPERVISION: In 1960s, the edible oil industry "supervised" AHA, NHLBI and American Dietetic Association.

REVOLVING DOOR POLICY: In 1971, FDA's general counsel became president of the edible oil trade association; he was in turn replaced at the FDA by a food lawyer, Peter Barton Hutt of Covington and Burling, who had represented the edible oil industry.

BACK ROOM CONTROL: In 1970s and 1980s, Mattson held two controlling positions in the Lipid Research Clinic Trials that led to the National Cholesterol Education Program.

The American Medical Association and the Lipid Hypothesis

"The anti-fat, anti-cholesterol fad is not just foolish and futile. . . It also carries some risk.

"Scientific reports linking cholesterol and heart attacks have touched off a new food fad among do-it-yourself Americans. But dieters who believe they can cut down on their blood cholesterol without medical supervision are in for a rude awakening. It can't be done. It could even be dangerous to try."

From a general news release issued by the AMA on October 12, 1962

"Diet and Coronary Heart Disease"
AHA, AMA and NAS Recommendations 1972-1973

CHOLESTEROL TOO HIGH: Average level of serum cholesterol in most American men and women is undesirably elevated. Important to lower cholesterol levels in the blood.

MUST MEASURE CHOLESTEROL: Measurement of cholesterol should be routine in physical examinations, even in early adulthood.

DIETARY ADVICE: Americans in "risk" category should receive “appropriate dietary advice.”

REDUCE SATURATES: Americans in "risk" categories should reduce intake of saturated fat by substituting polyunsaturated vegetable oils.

PROCESSED FOODS: Modified and ordinary foods useful for this purpose should be readily available on the market, reasonably priced and easily identified by appropriate labeling. Any existing legal and regulatory barriers to the marketing of such foods should be removed.

MORE STUDIES: More studies need to be done to determine whether modification of plasma lipids (lowering cholesterol) can reduce CHD.

Federal Food, Drug and Cosmetic Act 1938

". . . there are certain traditional foods that everyone knows, such as bread, milk and cheese, and that when consumers buy these foods, they should get the foods that they are expecting . . . [and]. . . if a food resembles a standardized food but does not comply with the standard, that food must be labeled as an 'imitation'."

FDA "Imitation" Policy 1973

". . . [attempted] to provide for advances in food technology and . . . [gave] . . . manufacturers relief from the dilemma of either complying with an outdated standard or having to label their new products as 'imitation'. . . [since] . . . such products are [not] necessarily inferior to the traditional foods for which they may be substituted. . . The regulation defined 'inferiority' as any reduction in content of an essential nutrient that is present at a level of 2 percent or more of the U.S. RDA . . . “

Federal Register, Vol 56 #229, Wednesday, November 27, 1991, Proposed Rules

Senate Select Committee on Nutrition and Human Needs

CHAIRED by George McGovern, 1973-1977.

PROMOTED AHA "lipid hypotheses"; Dissenting testimony was ignored.

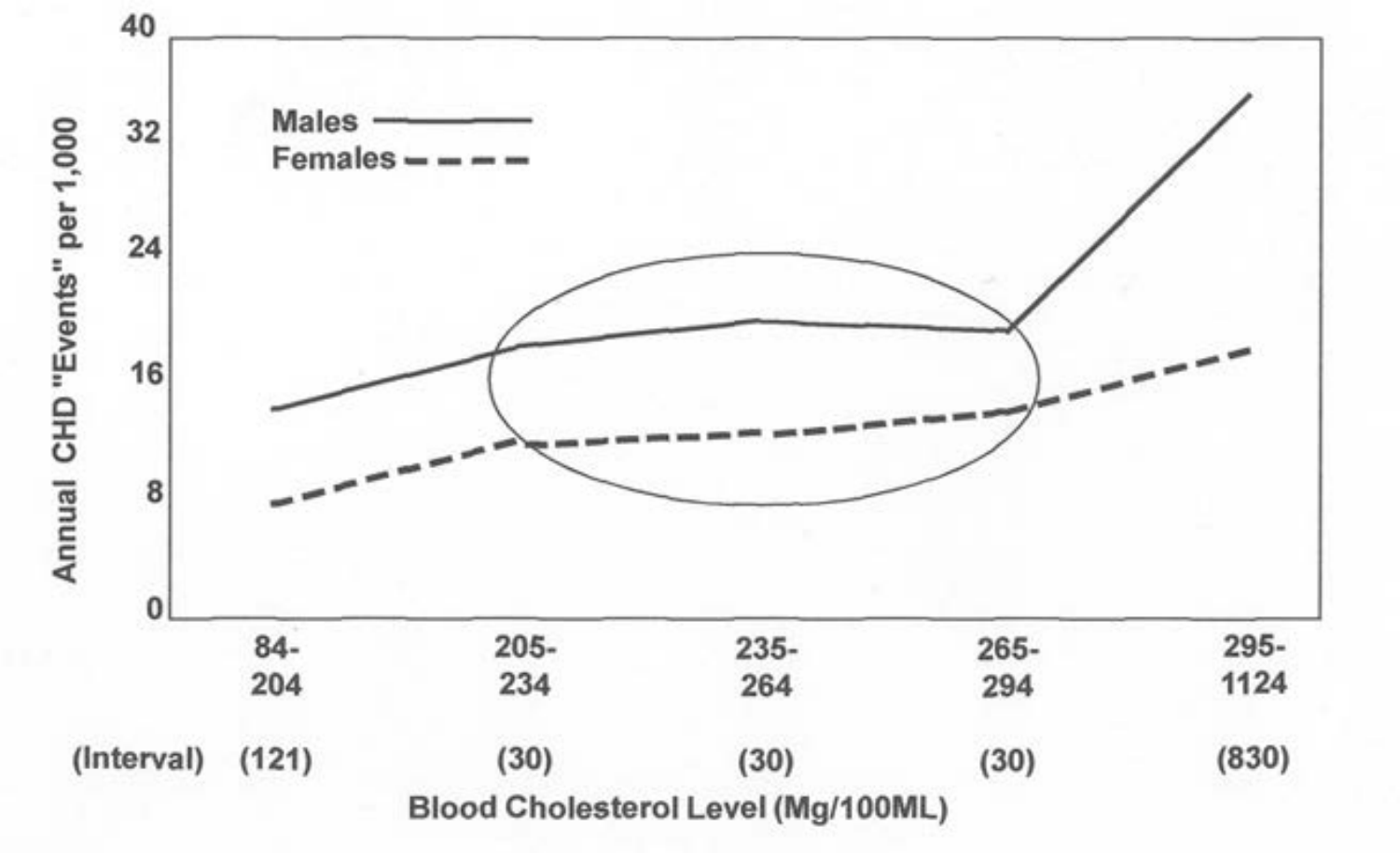
FINAL REPORT claimed USDA data showed that animal fats cause and vegetable oils prevent cancer and heart disease.

INDEPENDENT ANALYSIS of same USDA data showed vegetable oils cause and animal fats prevent cancer and heart disease.

BENEFIT TO EDIBLE OIL INDUSTRY: The report and accompanying publicity continued American dietary trends towards more vegetable oils, less animal fat, but medical profession remained skeptical of value of cholesterol-lowering measures.

The 40-Year Framingham Study

Dr. William Kannel: "Total plasma cholesterol is a powerful predictor of death related to CHD"

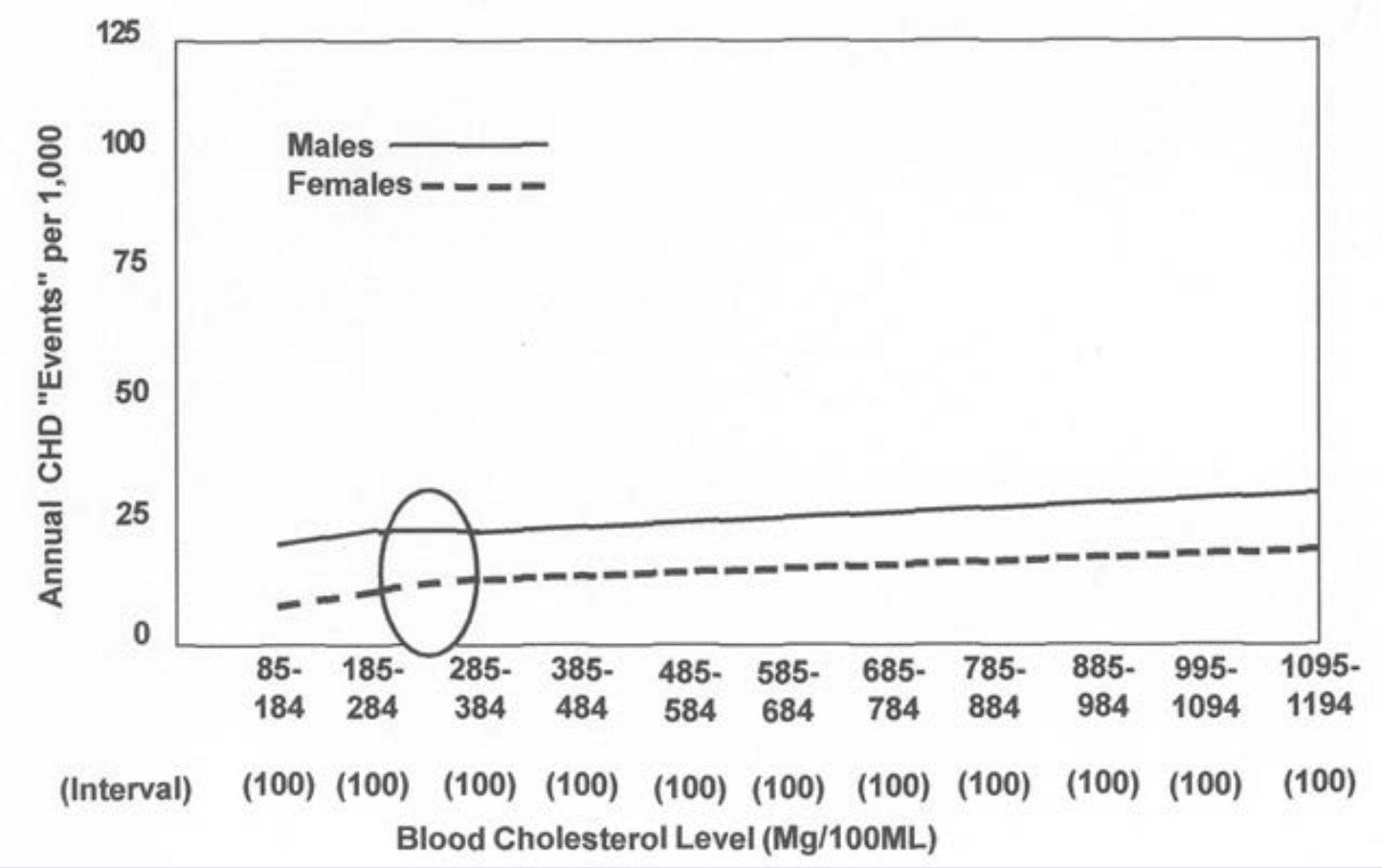


84=2.3 205=5.2 294=7.7 1124=29 *American Heart Journal* 1987, 114, 413.

The 40-Year Framingham Study

Actual rate of increase is 0.13% between 182 and 244

Stamler: "240% increase in risk"



84=2.3 205=5.2 294=7.7 1124=29

Relative Risk vs Absolute Risk

Suppose CHD death rate at 240 mg (6.2) cholesterol is 2/1000 and at 160 mg (4.1) is 1/1000

The rate difference (absolute risk) is 1/1000 or 0.001% but the difference in relative risk is 100% (2 is 100% greater than 1)

Now suppose CHD death at 240 mg (6.2) is 2/1billion and at 160 mg (4.1) is 1/1billion

The rate difference (absolute risk) is 1/1billion or 0.0000001% but the difference in relative risk is still 100% (2 is 100% greater than 1)

Cholesterol theory proponents usually exaggerate benefits by reporting them in terms of relative risk and minimize side effects by reporting them in terms of absolute risk.

Fatal Heart Attack and Breast Cancer Rates in the CARE Trial

	Patients in Statin Group	Patients in Control Group	**Relative Risk**	Absolute Risk
Death from Heart Attack	96 of 2081 (4.6%)	119 of 2078 (5.7%)	**-19 %**	**-1.1%**
Cases of Breast Cancer	13 of 290 women (4.5%)	1 of 286 women (0.3%)	**+1500%**	**+4.2%**

In terms of relative risk, breast cancer was 1500% higher in those taking the cholesterol-lowering drug.

Source: Ravnskov. *The Cholesterol Myths*, CARE Trial data

What They Really Found at Framingham

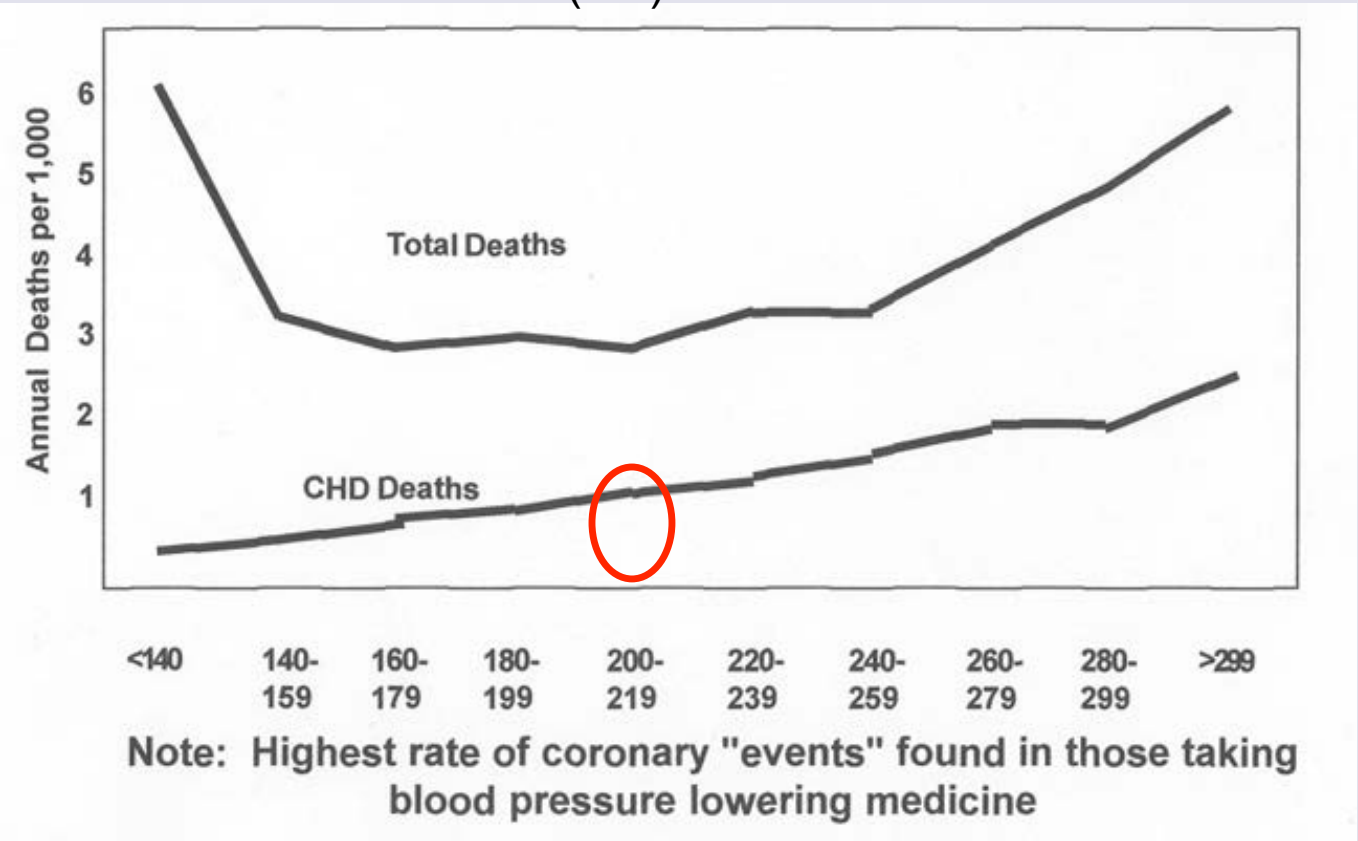
"In Framingham, Massachusetts, the more saturated fat one ate, the more cholesterol one ate, the more calories one ate, the lower people's serum cholesterol. . . we found that the people who ate the most cholesterol, ate the most saturated fat, ate the most calories weighed the least and were the most physically active."

William Castelli, Director
The Framingham Study

Archives of Internal Medicine, Jul 1992, 152:(7):1371-1372

Multiple Risk Factor Intervention Trial (MRFIT) for 362,000 Men

Dr. John La Rosa of AHA Nutrition Committee: Curve starts to "inflect" after 200 mg (5.1). Cholesterol Consensus Conference recommended all adults reduce cholesterol to below 200 (5.1)



140=3.6 299=7.7

Smith, *The Cholesterol Conspiracy*, p 40

Lipid Research Clinics Coronary Primary Prevention Trial (LRC-CPPT) 1984

COST: $150 million taxpayer dollars.

DRUG TRIAL: One group on cholesterol-lowering drug; one on placebo.

DIET: All subjects on low-cholesterol, low-saturated-fat diet.

RESULTS: Researchers claimed group taking drug had 17% reduction in rate of CHD; independent researchers found NO difference in CHD between drug and placebo groups.

CLAIM: Average cholesterol reduction was 8.5%. Led to oft-repeated statement by Rifkind: "For each 1% reduction in cholesterol, we can expect a 2% reduction in CHD events."

SIDE EFFECTS: Group taking drug had increase in deaths from cancer, stroke, violence and suicide

MEDIA PORTRAYAL: Popular press and medical journals portrayed LRC-CPPT as the long-sought proof that animal fats are the cause of heart disease. *JAMA*, 1984, 251:359

Framingham Revisited

30 YEARS LATER: Investigators looked at the participants after 30 years:

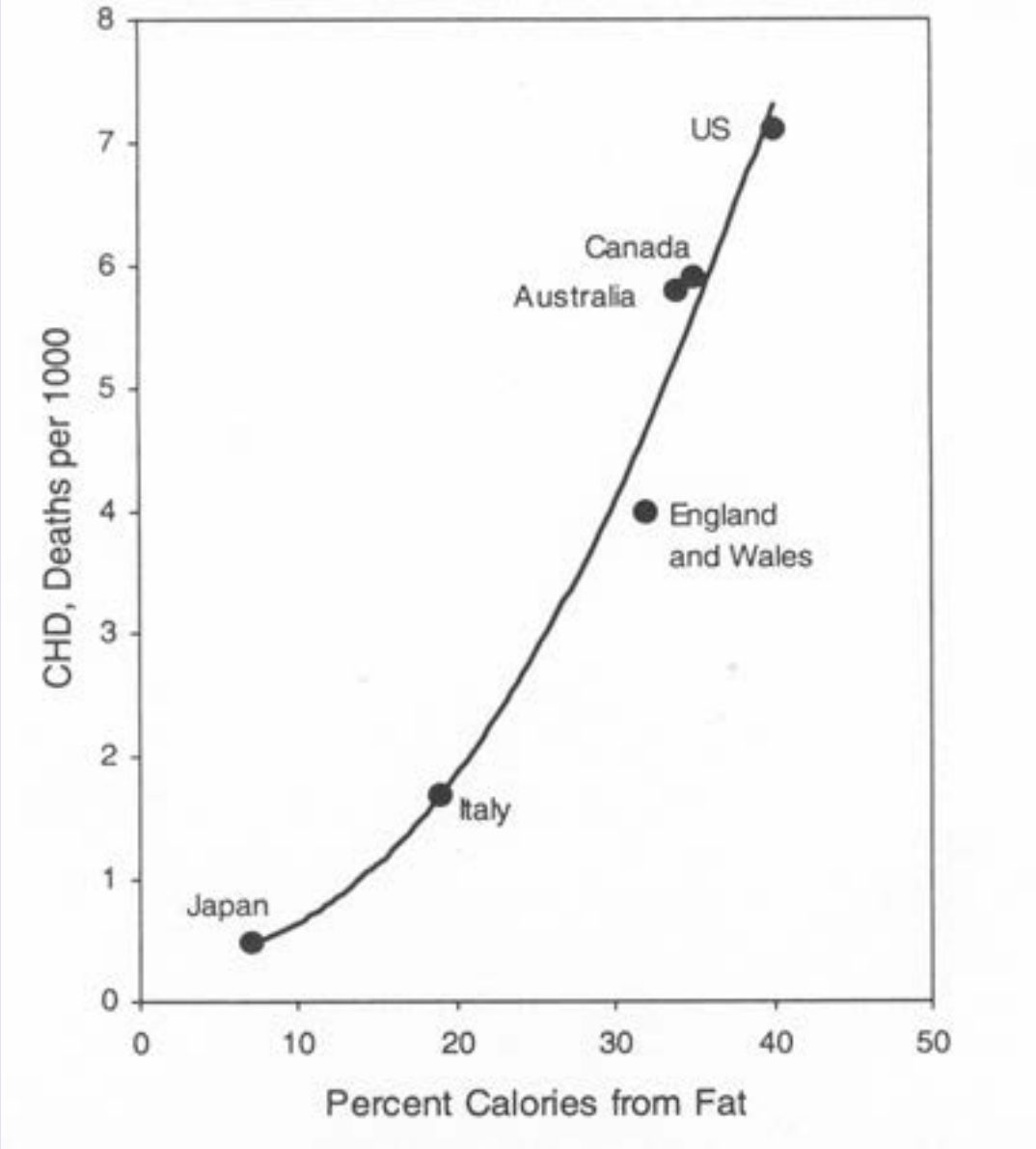
LOWER CHOLESTEROL =
GREATER RISK OF DEATH

“For each 1% mg/dl drop of cholesterol there was an 11 percent increase in coronary and total mortality.”

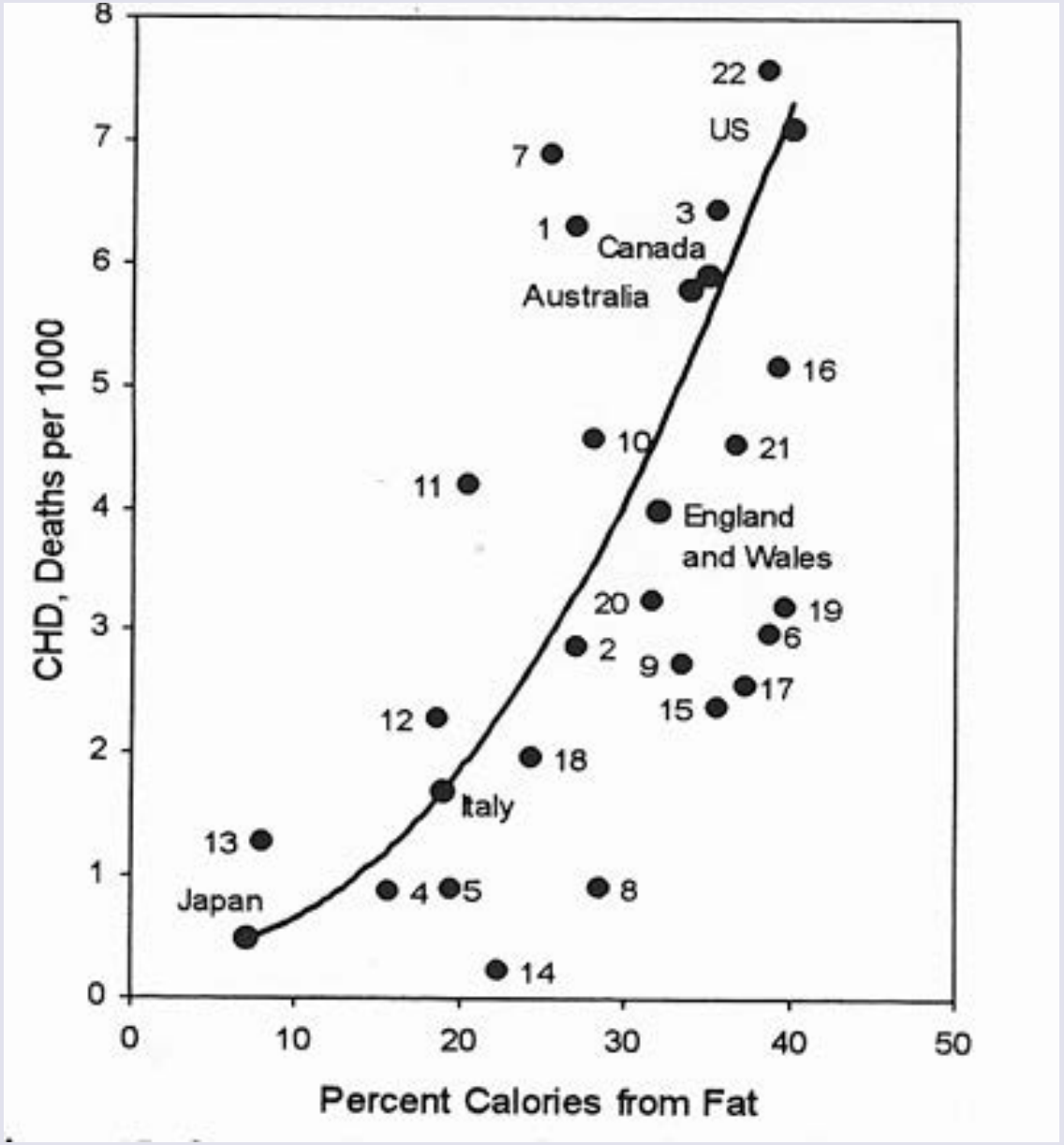
JAMA 1987;257:2176-2180

Ancel Keys: Six-Country Study

Journal of Mount Sinai Hospital 20, 118-139, 1953.



All Countries



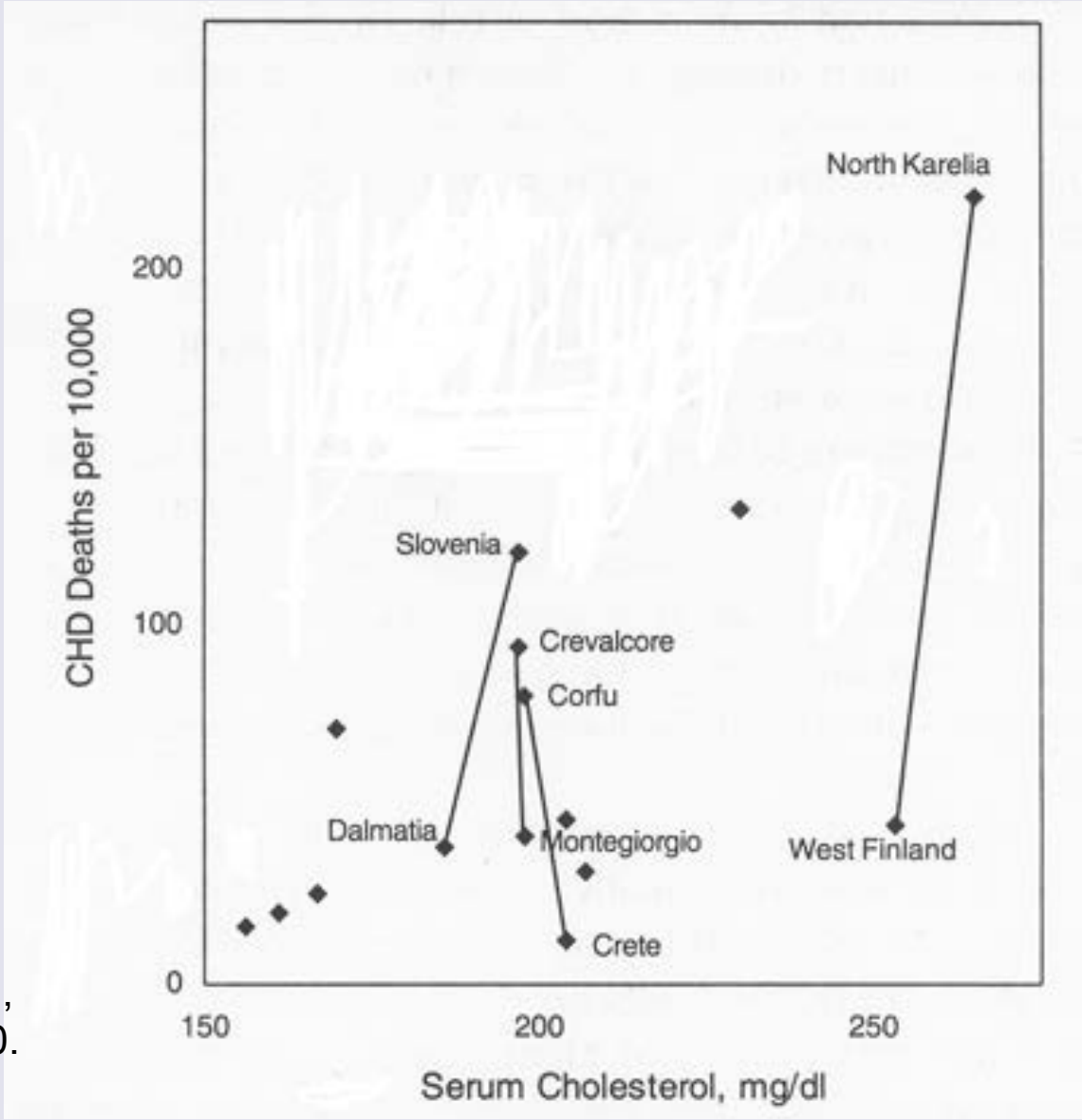
New York State Journal of Medicine 2343-2354, 1957.

Country Pairs

150=3.9

200=5.1

250=6.5



Keys. Circulation 41, suppl 1, 1-211, 1970.

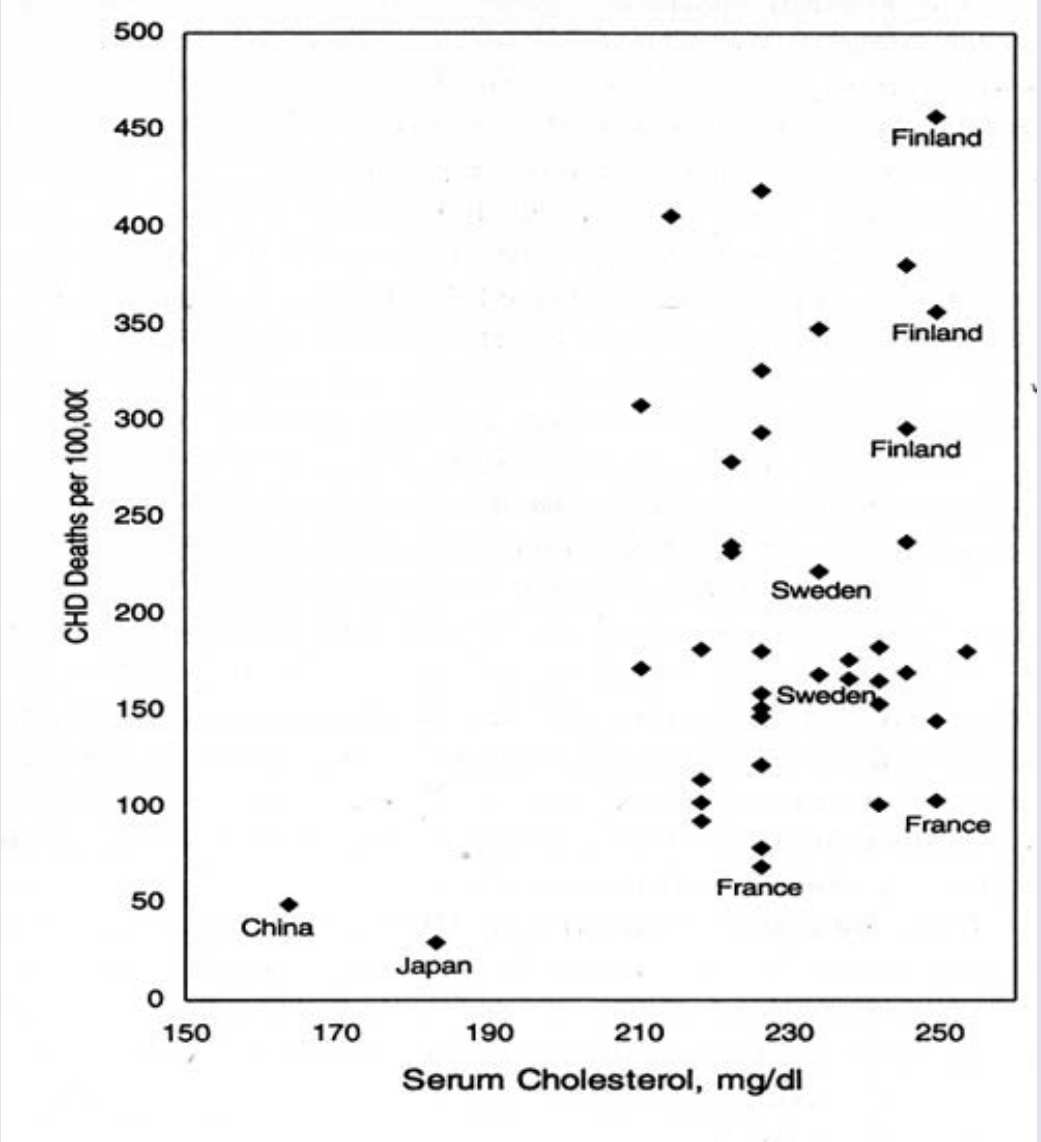
MONICA Study

150=3.9

200=5.1

250=6.5

Canadian Medical Association Journal 103, 927-931, 1970.

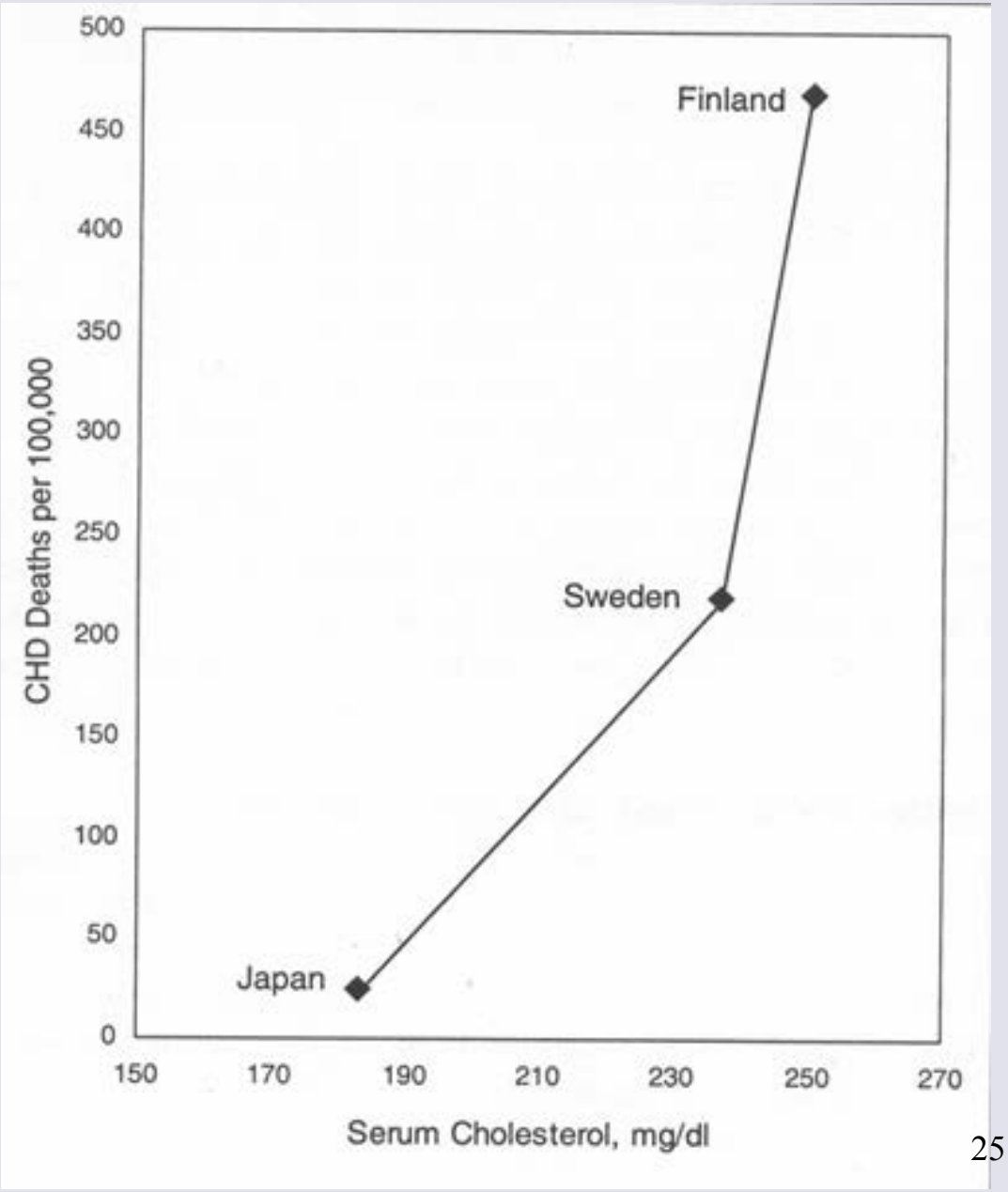


Graph Used in Sweden to Justify the Anti-Cholesterol Campaign

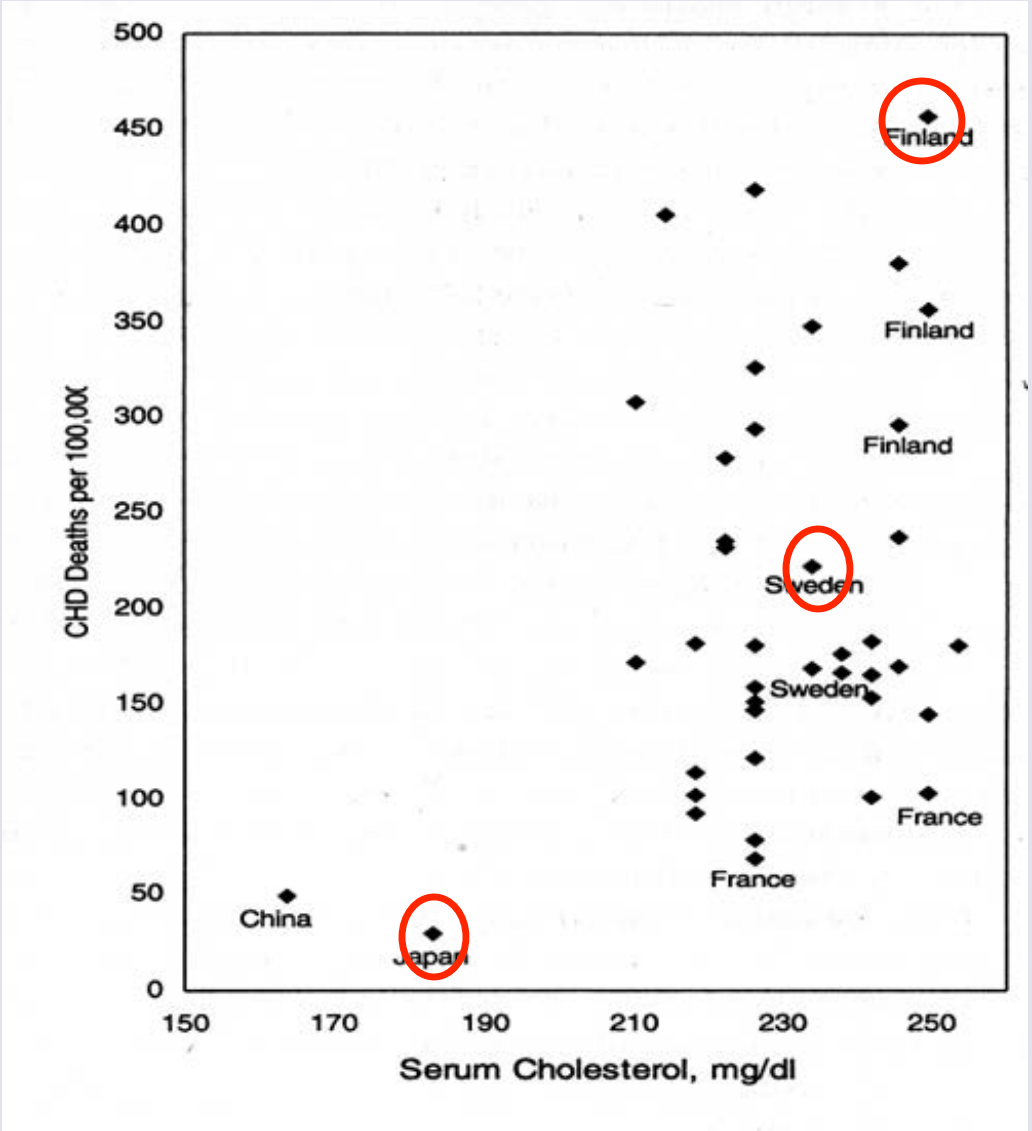
150=3.9

200=5.1

250=6.5



MONICA Study



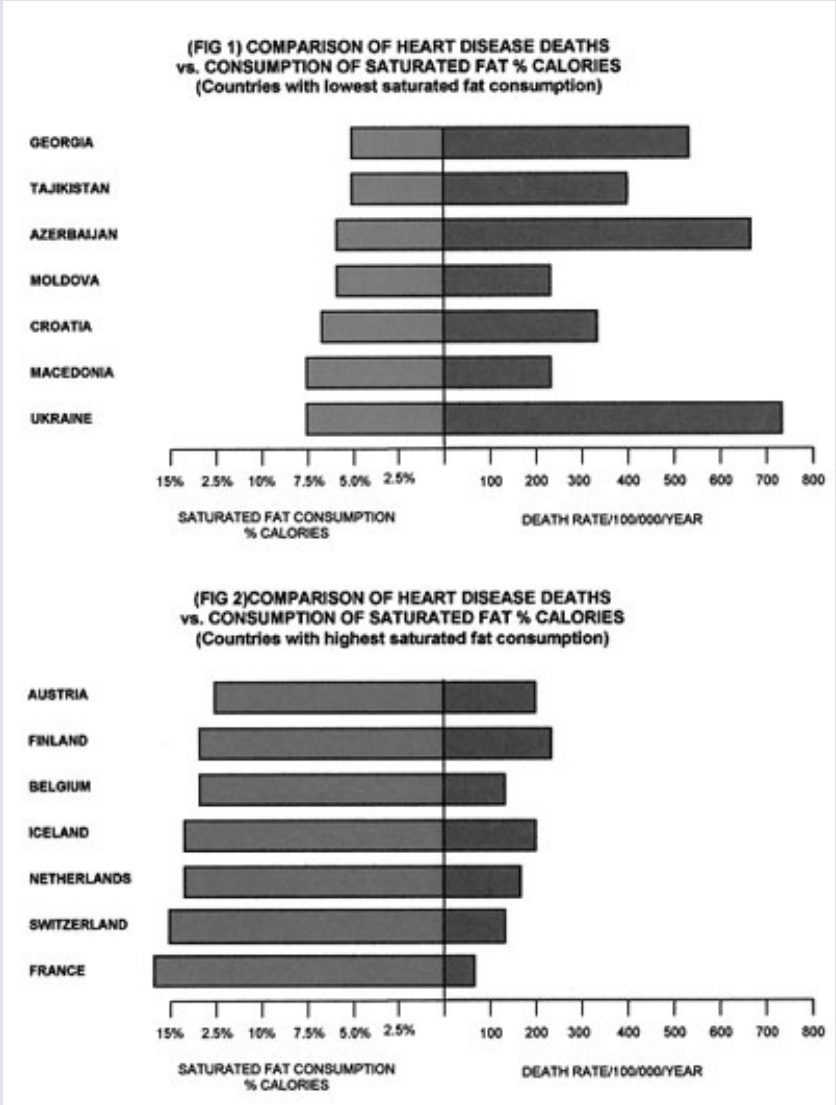
150=3.9

200=5.1

250=6.5

Saturated Fat and Heart Disease

Lower rates of heart disease are associated with higher levels of saturated fat in the diet: The French, Swiss, Dutch, Icelandic, Belgium, Finnish and Austrian paradoxes!!



European Cardiovascular Disease Statistics, 2005 Edition, www.heartstats.org/uploads/documents%5CPDF.pdf

The Wisdom of Galileo

“By denying scientific principles, one may maintain any paradox.”

1984 Cholesterol Consensus Conference

APPEARANCE: Designed to appear objective and comprehensive

DISSENTERS: Allowed to speak, but views not included in panel's report

CONCLUSIONS: Written before the conference convened!

RISK POINT DEFINED: Defined all individuals with cholesterol over 200 (5.1) as “at risk.”

SCREENING: Called for mass cholesterol screening.

DIET: Recommended "prudent diet,” low in saturated fat and cholesterol, for "at risk" Americans, even though no long term studies had ever been done of such a diet.

RECOMMENDATION: Advised replacement of butter with margarine.

National Cholesterol Education Program

LAUNCH: Launching "announced" at Consensus Conference, actually begun a year before.

STATED GOAL: Change physicians' attitudes.

AIMED AT PHYSICIANS: Large "Physicians Kit" sent to all doctors.

PHARMACEUTICALS: American Pharmaceutical Association on NCEP coordinating committee.

DIET RECOMMENDATIONS: Reduce cholesterol and saturated fat; use margarine instead of butter.

ADDITION IN 1990: NIH recommended the Prudent Diet for *all Americans above age 2*

From "Cholesterol and Coronary Heart Disease: A New Era" by Scott M. Grundy, MD, PhD, *JAMA* 1986

"Evidence relating plasma cholesterol levels to atherosclerosis and CHD has become so strong as to leave little doubt of the etiologic connection."

"The recent consensus conference on cholesterol. . . implied that levels between 200 and 240. . . carry at least a mild increase in risk, which they obviously do. . ."

"If hypercholesterolemia is defined as a plasma cholesterol level exceeding 240. . . for middle-aged people, this means that 15% to 20% of American adults have an elevated cholesterol level"

". . . the simple step of measuring the plasma cholesterol level in all adults. . . those found to have elevated cholesterol levels can be designated as at high risk and thereby can enter the medical care system. . . an enormous number of patients will be included."

From "Cholesterol and Coronary Heart Disease: A New Era" by Scott M. Grundy, MD, PhD, *JAMA* 1986

"Many physicians will see the advantages of using drugs for cholesterol lowering. . . The recent and dramatic surge of interest in cholesterol-lowering drugs by the pharmaceutical industry support the belief that use of these drugs will be widely accepted by the medical community. . . a positive benefit/risk ratio for cholesterol-lowering drugs will be difficult to prove."

"Whether diet has a long term effect on cholesterol remains to be proved. . . Public health advocates furthermore can play an important role by urging the food industry to provide palatable choices of foods that are low in cholesterol, saturated fatty acids and total calories."

"The demonstration that lowering the plasma cholesterol level will reduce the risk of CHD provides a strong impetus to intervene in the 'mass hypercholesterolemia' prevalent among Americans. Dietary modification for this purpose will likely remain the foundation of intervention."

Other Studies

INTERNATIONAL ATHEROSCLEROSIS PROJECT: 31,000 autopsies from 15 countries, no correlation between animal fat intake and degree of atherosclerosis or serum cholesterol level.

Laboratory Investigations 1968 18:498

DEBAKEY STUDY: Survey of 1700 patients with atherosclerosis, found no relation between level of serum cholesterol and degree of hardening of the arteries.

VETERANS CLINICAL TRIAL: No relation between diet and CHD

MINNESOTA STATE HOSPITAL TRIAL: No difference in CHD events between controls and group on diet that lowered cholesterol by 14%.

HONOLULU HEART PROGRAM: No significant differences between fat, saturated fat and cholesterol intakes of persons with and without CHD.

PUERTO RICE HEART HEALTH STUDY: No significant differences between fat, saturated fat and cholesterol intakes of persons with and without CHD.

Uffe Ravnskov, MD, PhD, *The Cholesterol Myths*

The Lipid Hypothesis--
What Independent Researchers Say

"The diet-heart hypothesis has been repeatedly shown to be wrong, and yet, for complicated reasons of pride, profit and prejudice, the hypothesis continues to be exploited by scientists, fund-raising enterprises, food companies and even governmental agencies. The public is being deceived by the greatest health scam of the century."

George Mann, M.D.
Formerly Associate Director, the Framingham Project

"Whatever causes CHD, it is not primarily a high intake of saturated fatty acids."

Michael Gurr, Ph.D.
Author of definitive lipid biochemistry textbook

What is Cholesterol?

STEROL: Large sterol molecule, made by almost every cell in the body.

KEY ROLE: Makes cells waterproof so there can be a different chemistry inside and outside the cell.

HEALING: Nature's healing substance--repairs wounds, including tears in arteries.

STRUCTURE TO CELLS: Gives structural integrity or proper "stiffness" to cells, like cellulose in plants.

VITAMIN D: Precursor to Vitamin D, needed for healthy bones, calcium metabolism, reproduction, normal growth, eyesight, nervous system.

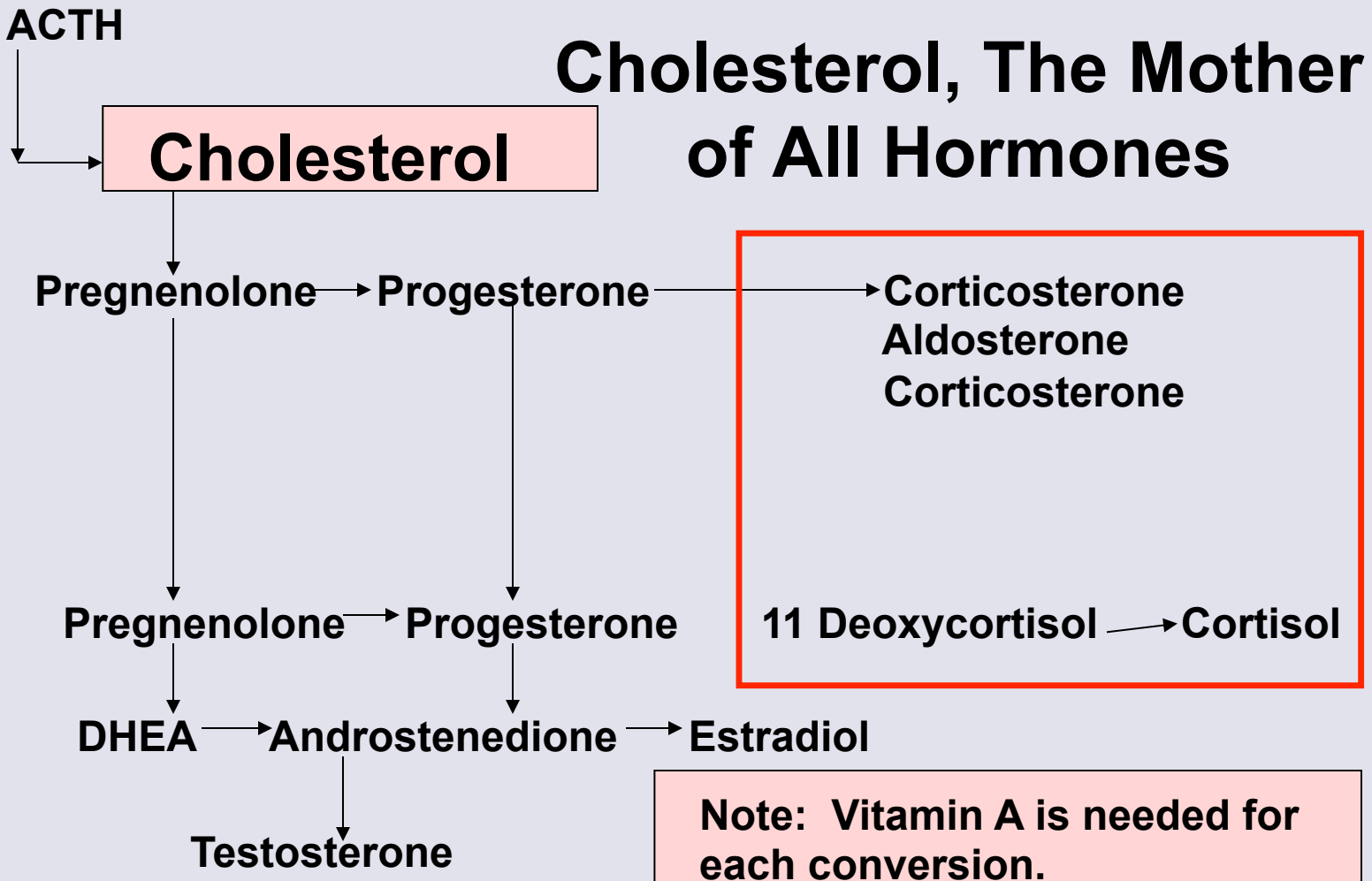
BILE SALTS: Precursor to bile salts, needed for fat digestion.

HORMONES: Precursor to vital sex hormones and protective steroids.

ANTIOXIDANT: Powerful anti-oxidant, protects against free radicals.

BRAIN AND NERVOUS SYSTEM: Essential for development and function of brain and nervous system; needed for proper functioning of serotonin receptors in the brain.

Cholesterol, The Mother of All Hormones



Note: Vitamin A is needed for each conversion.

***Trans* fats inhibit enzymes that make these conversions.**

Summary of Cholesterol Research

LEVELS VARY: Cholesterol levels increase naturally and gradually with age.

ACCURATE READING DIFFICULT: Cholesterol levels vary with stress, time of day, fasting vs. non-fasting, type of test used.

RISK: In men, slightly greater risk of CHD for cholesterol levels above 300 (7.7). No appreciable difference in CHD rate for cholesterol levels of 180-300 (4.6-7.7), the vast majority. *American Heart Journal* 1987, 114, 413.

WOMEN AND ELDERLY: In women and in the elderly, no appreciable difference in CHD rate for any level of cholesterol. ***In fact, for women of all ages and the elderly, higher cholesterol is associated with a longer lifespan*****.**
Circulation 86, 1026-1029, 1992, westonaprice.org/moderndiseases/benefits_cholest.html

NO CORRELATION: Autopsy studies show zero correlation between estimated animal fat intake, and degree of atherosclerosis or serum cholesterol level. *Laboratory Investigations* 1968 18:498

Summary of Cholesterol Research

LDL AND HDL? No study has shown that elevated LDL is a problem. (Since HDL has been shown to *protect* against CHD, and Total Cholesterol = HDL + LDL, Framingham Director Castelli claims that elevated LDL is the cause of CHD.) Ravnskov, *The Cholesterol Myths*

GREATER DEATHS AT LOW CHOLESTEROL: Many studies have shown that all-cause deaths, especially deaths from cancer, are higher for individuals with cholesterol levels lower than 180. *Circulation* 1992 86:3

OXIDIZED CHOLESTEROL: Cholesterol in natural foods does not cause heart disease—it merely spares the body from making its own cholesterol. However, altered, oxidized cholesterol from powdered milk and eggs, and from animal fats used for deep frying, may initiate the build up of pathogenic plaque. Powdered milk is often added to 1% and 2% milk and other lowfat dairy products.

Food and Nutrition News 62(2), 7-10, March/April 1990

RISKS: Cholesterol-lowering drugs do not lower risk of CHD but they increase risk of cancer, intestinal diseases, depression, suicide and violent behavior. westonaprice.org/moderndiseases/statin.html

Risk Factors for Heart Disease

There are over 200 risk factors for heart disease including:

Elevated L(p)a	Elevated Homocysteine
Type A Behavior	Loss, Bereavement
Short Stature	Low Birth Weight
Elevated Uric Acid	Elevated C Reactive Protein
Low vitamin D	Under-active thyroid
Lack of Exercise	Obesity
Smoking	Snoring
Baldness	Hairy Chest
Earlobe Creases	Hairy Earlobes
Being Poor in a Rich Country	Being Rich in a Poor Country

AND. . . Elevated cholesterol in some population groups

A risk factor is not a cause!

Electron Beam Tomography

A new way of measuring calcium buildup in the arteries that

- Correlates strongly with total plaque volume
- Correlates strongly with degree of obstruction
- Is a strong predictor of CHD events.

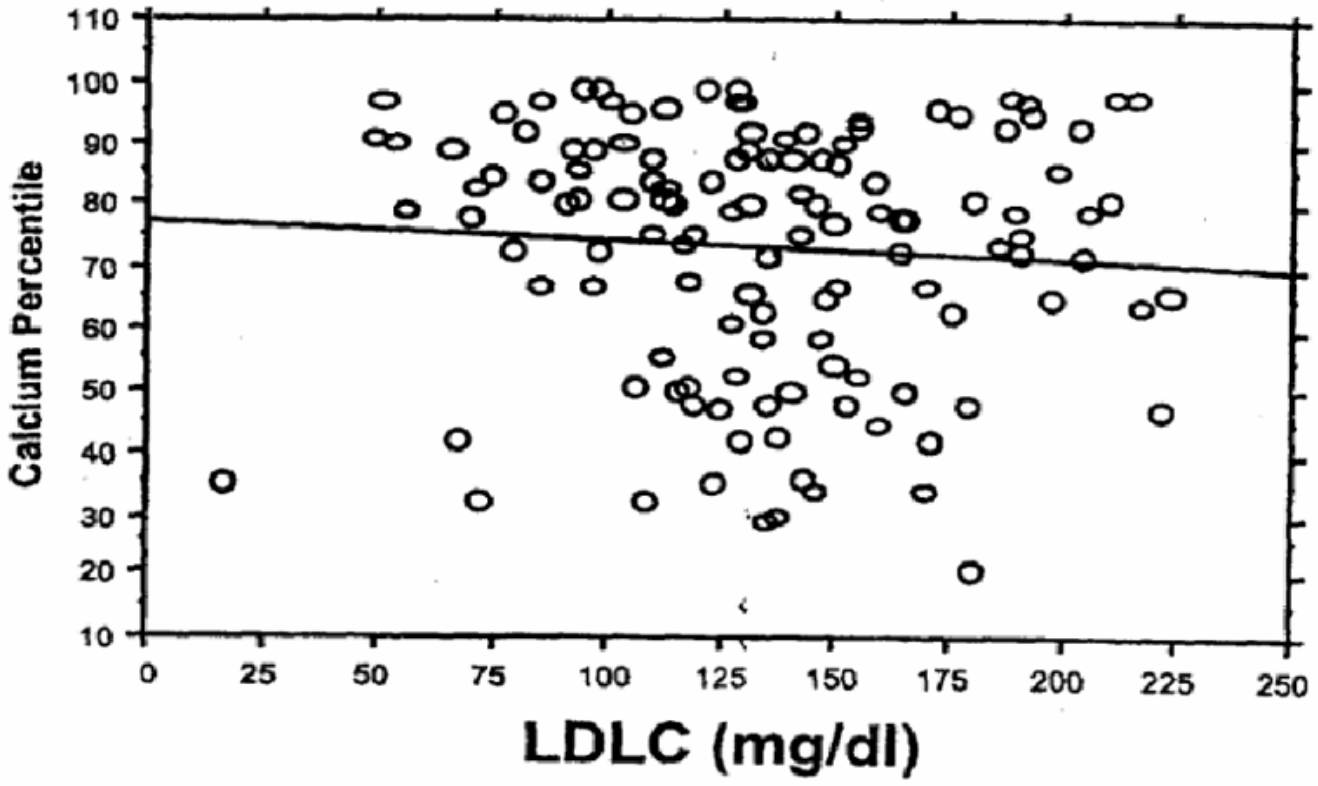
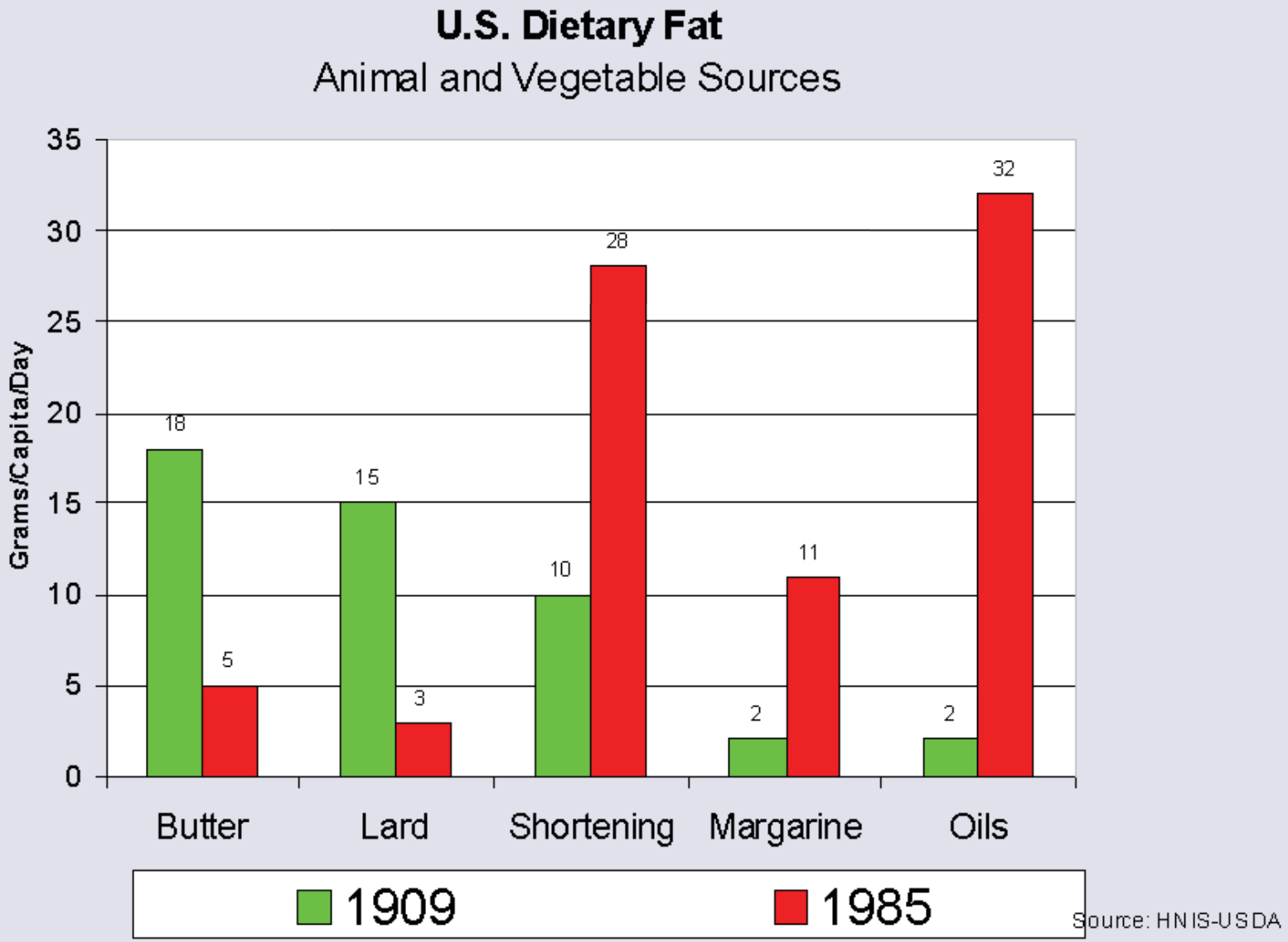
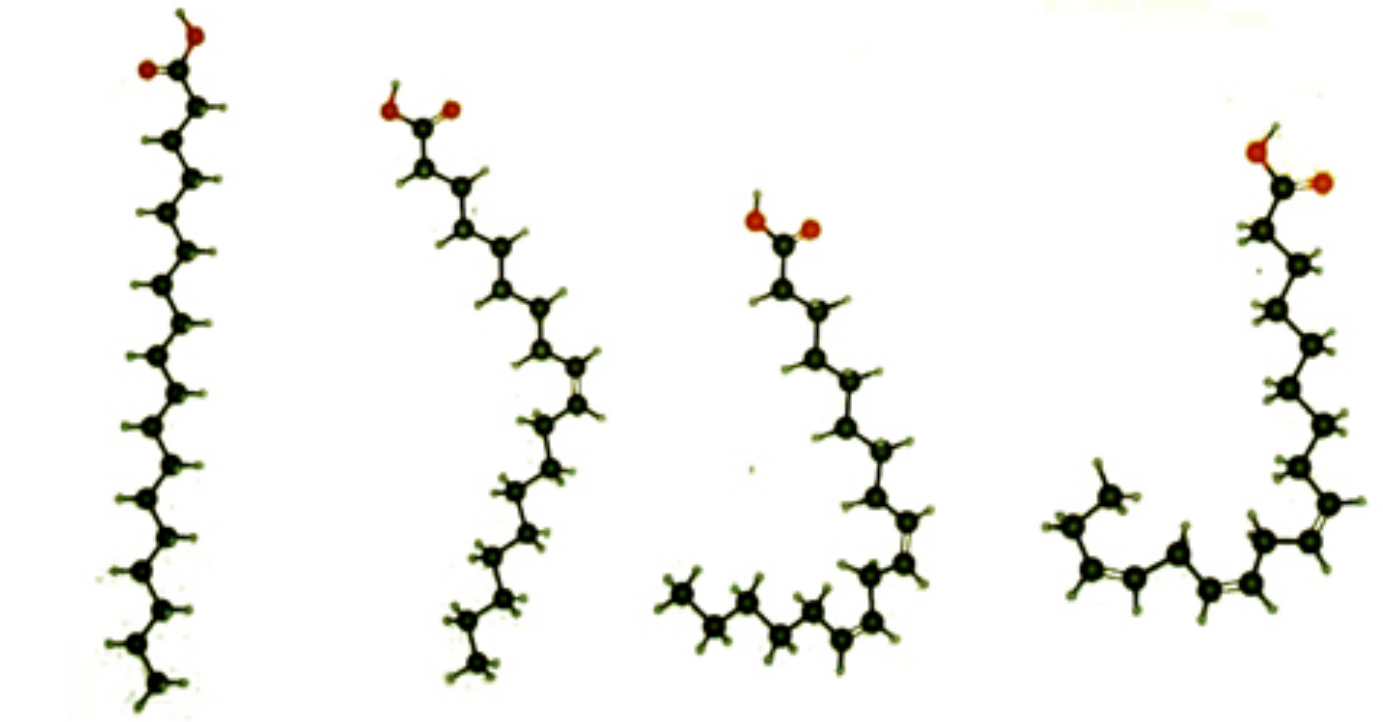


Figure 1. Correlation of electron beam tomography (EBT) calcium percentile and low density lipoprotein cholesterol (LDLC) in EBT+ women. r = 0.06, p= 0.49.

Hecht HS, Superko HR. *JACC* 2001;37:1506-11

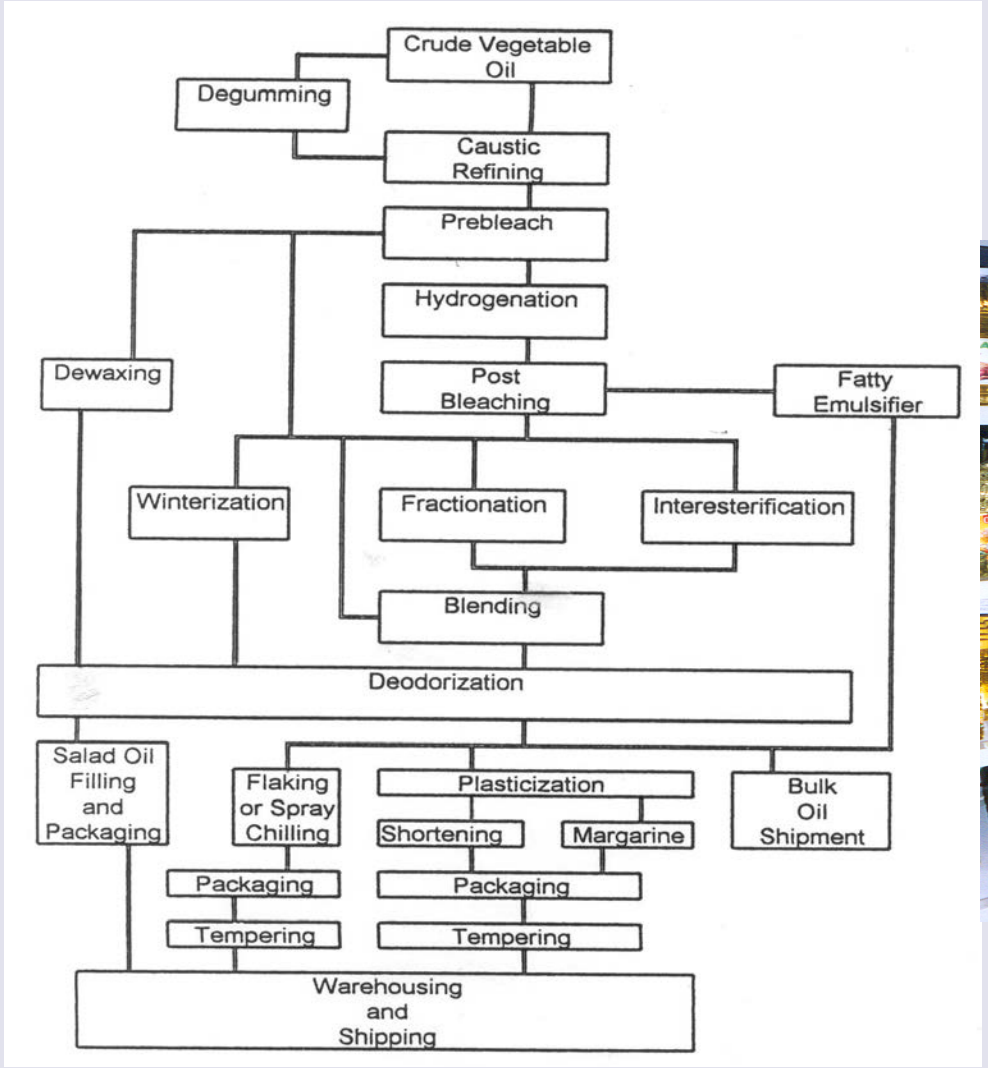

U.S. Dietary Fat
Animal and Vegetable Sources
Grams/Capita/Day
35
30
25
20
15
10
5
0
18
5
15
3
10
28
2
11
2
32
Butter
Lard
Shortening
Margarine
Oils
1909
1985
Source: HNIS-USDA

18 Carbon Fatty Acids



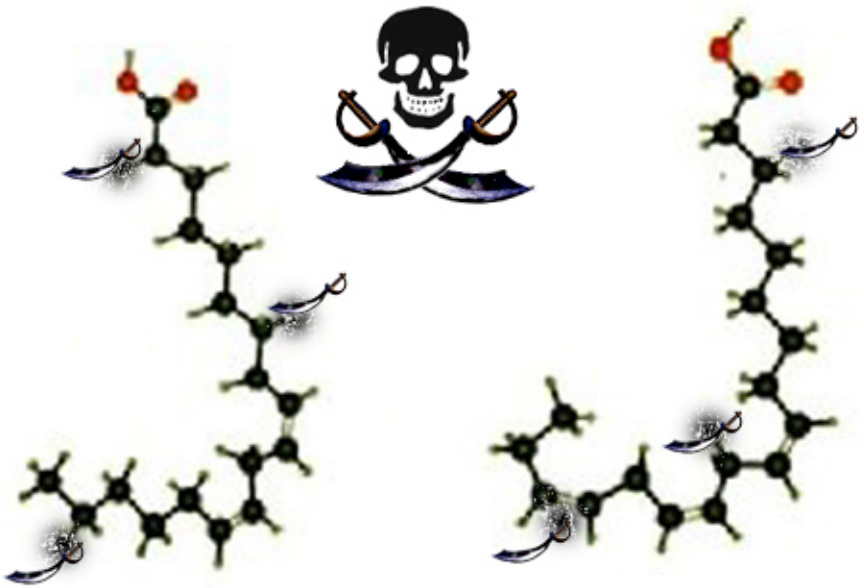
Stearic Oleic Linoleic Linolenic

Modern Edible Oil Processing



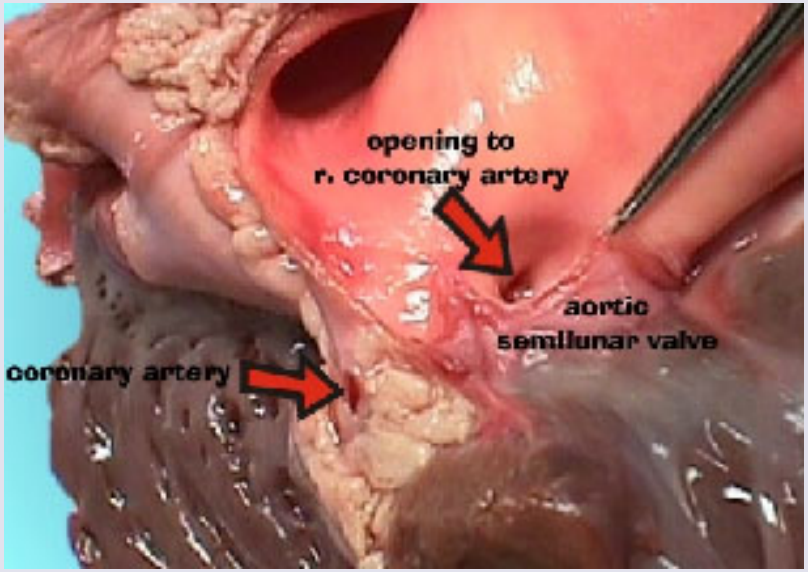
Fats and Oils: Formulating and Processing for Applications, Richard D. O'Brien 1998

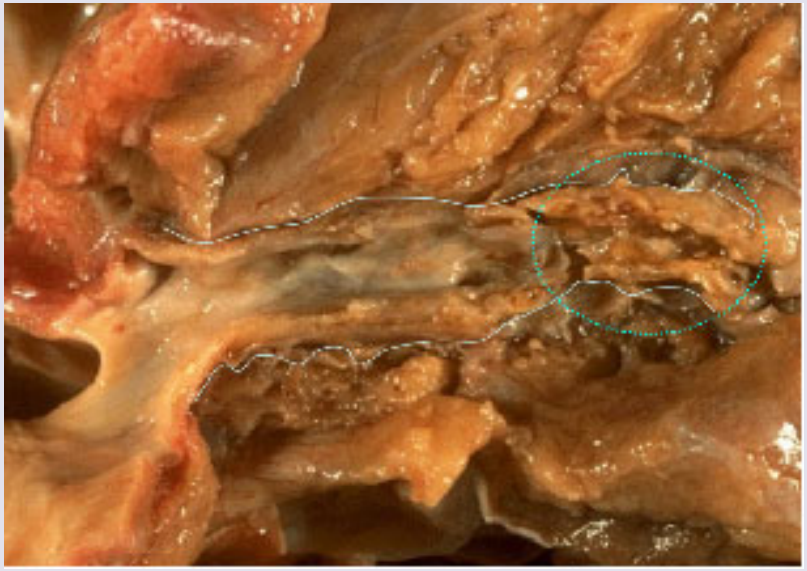
Free Radicals in Processed Polyunsaturated Oils



Linoleic Linolenic

Arteries: The Good and the Pathological





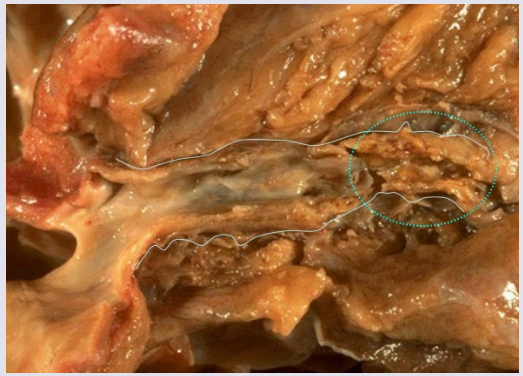
Good artery - smooth, elastic and pink.

Saturated and mono-unsaturated fats do not react or harm arteries.

Damaged arteries - crusty and yellowish.

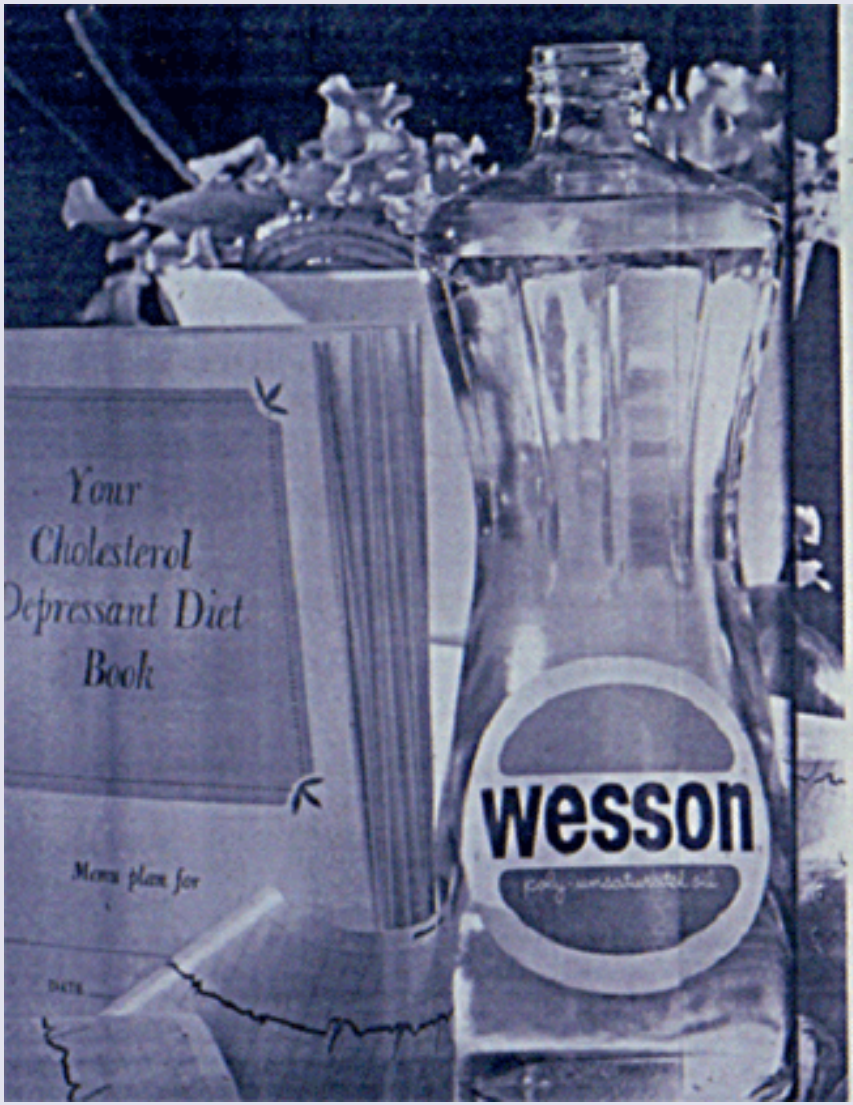
Damage caused by free radicals from rancid, processed vegetable oils!

Problems Associated with Consumption of Polyunsaturated Oils



Increased cancer
Increased heart disease
Increased wrinkles and premature aging
Immune system dysfunction
Disruption of prostaglandin production
Depressed learning ability
Liver damage
Ceroid storage disease
Damage to reproductive organs and the lungs
Digestive disorders due to polymerization
Increased levels of uric acid
Impaired growth
Lowered cholesterol

Source:
Pinckney, *The Cholesterol Controversy*



Available only to physicians for their distribution—

Complete Cholesterol Depressant Menus and Recipe Books

An authoritative patient-aid...already used by thousands of physicians

Order quantity you need for your patients. Time-saving manual of 60 pages, including all necessary *diet instructions*... menus, recipes, shopping and cooking guidance ... all worked out for you. You have only to check the desired daily calorie level before giving the book to your patient. *Over 500,000 books already ordered by physicians.*

Complete menus for 10 days, adhering as closely as permissible to the patient's normal eating habits.

Weight control is achieved as each day's menus is given at 3 calorie levels—1200, 1800 and 2600 calories. You prescribe the level most desirable.

A high degree of satiety is achieved even at the lower calorie levels, because Wesson provides an unexcelled source of concentrated, slow-burning food energy.

Variety and appetite appeal are built into menu plans to an extent not previously accomplished.

Complete recipes—65 in all—are included to assure that the specified menus provide precise levels of calories, the pre-determined ratio of polyunsaturated to saturated fat, plus essential nutrients.

Dietary fat is controlled to effect replacement of saturated dietary fat by the percentage of polyunsaturated fat (at least 40%) found in clinical studies most effective in the reduction of serum cholesterol and in its maintenance at desirable levels. More liberal menus are provided for maintenance after desired therapeutic results have been accomplished. Adaptable for use with diabetics. Menus fulfill recommended dietary allowances of the Food & Nutrition Board, National Research Council.

Wesson poly-unsaturated oil is unsurpassed by any readily available brand, which vegetable (salad) oil is medically recommended for a cholesterol depressant regi

WESSON'S IMPORTANT CONSTITUENTS

Wesson is 100% refinement oil—maximum and of selected quality

Linoleic acid glycerides (poly-unsaturated)	50-55%
Oleic acid glycerides (mono-unsaturated)	16-20%
Palmitic, stearic and myristic glycerides (saturated)	25-30%
Phytosterol (Predominantly beta sitosterol)	0.14-1%
Total tocopherols	0.094-0.17%

None hydrogenated—completely salt free

Wesson Now in New, More Convenient Bottle

The new, sure-grip, clear glass bottle contains, of course, the same poly-unsaturated Wesson which is already in more homes than any other oil.

FREE—USE THIS HANDY ORDER FORM

The Wesson People, Dept. MC-3
P. O. Box 2346, New Orleans, Louisiana

Please send _____ free copies of "Your Cholesterol Depressant Diet Book" for use with patients.

Address _____

City _____ Zone _____ State _____

NEW...made from 100% corn oil UNSALTED MARGARINE FOR HYPERTENSIVE PATIENTS

* contains only 10 mgs. of sodium per 100 grams
* contains 50% liquid corn oil and 50% partially hydrogenated corn oil
* has 30% linoleic acid—10 times that of butter

Because of the relationship of high-sodium intake to elevated blood pressure, new Fleischmann's Unsalted Corn Oil Margarine will prove to be a valuable addition to the dietary regimen of your hypertensive patients. It contains only 10 mgs. of sodium per 100 grams.

Fleischmann's Unsalted Margarine is made from 100% corn oil and contains both liquid corn oil and partially hydrogenated corn oil. Its linoleic acid content of 30% is three times higher than the 10% of regular margarines and ten times higher than the 3% of butter. This is the *only* unsalted margarine made from 100% corn oil.

The substitution of Fleischmann's Unsalted Corn Oil Margarine for butter or ordinary margarines in your hypertensive patients' dietary regimen has the added advantage of increasing their intake of high polyunsaturates . . . important because of their association with hypertension and atherosclerosis.

If your hypertensive patient needs sodium restriction, recommend Fleischmann's Unsalted. It has a light, delicate taste that he'll like. Tell him that it is available in his grocer's frozen food case.

Write now for physician booklet of 5 coupons—each coupon redeemable by your patient for 1 lb. of Fleischmann's Unsalted Margarine. Address Fleischmann's Unsalted Margarine, 625 Madison Avenue, N. Y. 22, N. Y. *Distribution presently limited in some areas.*

In line with the suggestion of the American Heart Association to manufacturers, we are listing the fatty acid composition of Fleischmann's Unsalted (Sweet) Margarine:

Unsaturated Fatty Acids:	
Polyunsaturates	30%
Monounsaturates	50%
Saturated Fatty Acids	20%
	100%

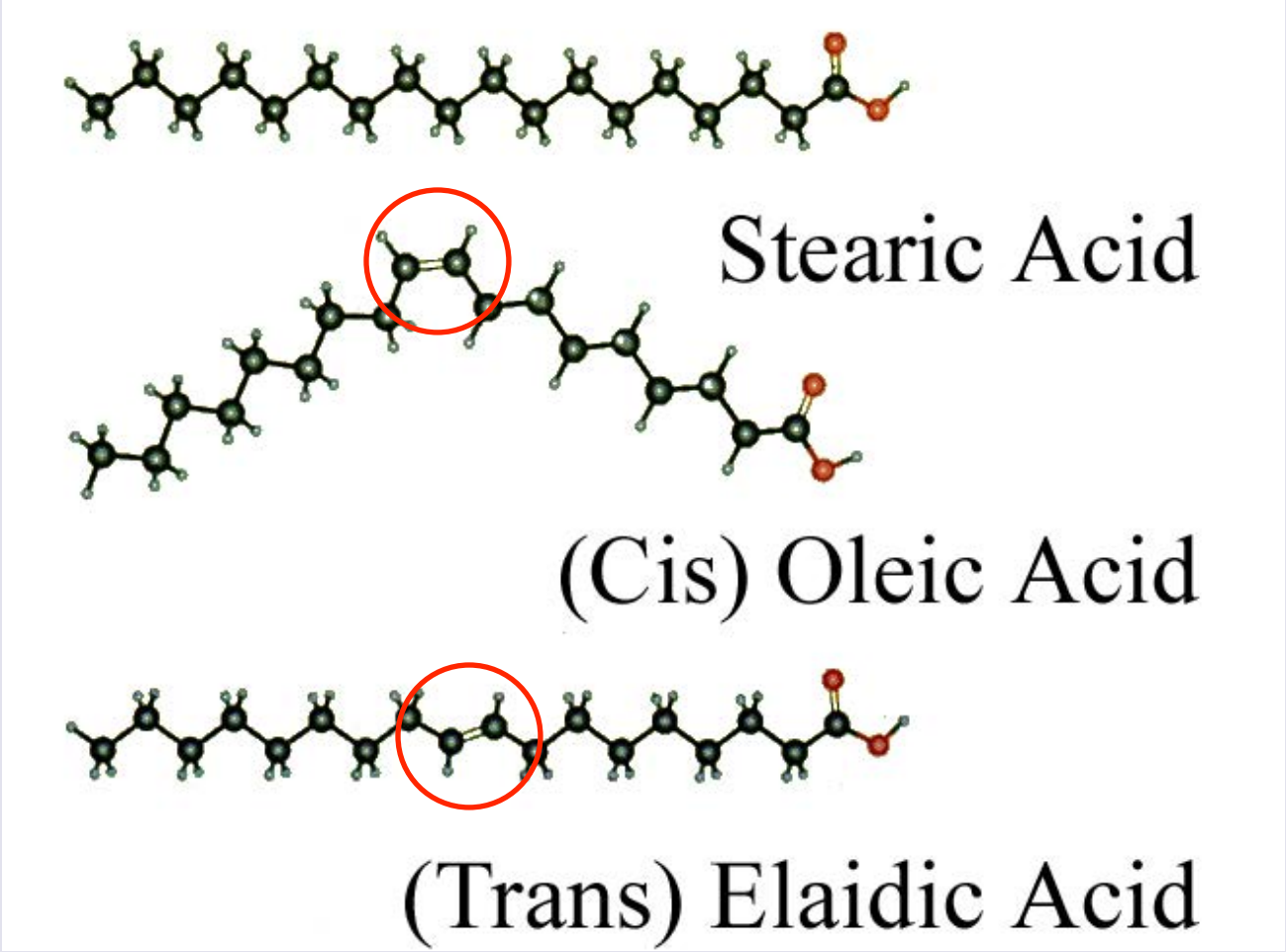
AVERAGE DAILY INTAKE
Two Ounces or Eight Pats of Fleischmann's Corn Oil Margarine Will Supply

Corn Oil—Liquid	22.7 Gm.
Corn Oil—Partially Hydrogenated	22.7 Gm.
Iodine Value	90-95
Sodium (dietetically sodium-free)	6 Mgs.
Linoleic Acid	13.6 Gm.
Vitamin A (Adult's Need)	47%
Vitamin A (Child's Need)	62%
Vitamin D (Adult's and Child's Need)	62%

Fleischmann's
Fresh-frozen in the green foil package in your grocer's frozen food case

ONLY UNSALTED MARGARINE MADE FROM 100% CORN OIL

Trans Fatty Acid



Diseases Caused or Exacerbated by Hydrogenated (*trans*) Fats

Atherosclerosis **Heart Disease** **Cancer**

Degeneration of Joints and Tendons

Osteoporosis **Diabetes**

Autoimmune Diseases

Eczema **Psoriasis** **PMS**

Lowered testosterone, lowered sperm count

Failure to Grow **Learning Disabilities**

Low Birth Weight Babies

Reduced Visual Acuity

Reduced Fat Content in Mothers' Milk


Wheat Thins
AIR CRISPS
Wheat Thins
Wheat Thins
triscuit
triscuit
triscuit
triscuit
triscuit
triscuit
Wheat Thins
AIR CRISPS
WIN
Wheat Thins
Wheat Thins
Wheat Thins
triscuit
triscuit
triscuit
triscuit
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triscuit


REDUCED FAT
NEW AT SAFEWAY
$1 99
STAURANT STYLE
BIG BAG
ORTILLAS
CLUB MEMBER SAVINGS
$1 99


McDonald's

Junk Food Country

Saturated Fats vs. Trans Fats

	Saturated Fats	Trans Fats
Cell Membranes	Essential for healthy function	Interfere with healthy function
Hormones	Enhance hormone production	Interfere with hormone production
Inflammation	Suppress	Encourage
Heart Disease	Lower Lp(a). Raise "good" cholesterol	Raise Lp(a). Lower "good"cholesterol
Omega-3	Put in tissues and conserve	Reduce levels in tissues
Diabetes	Help insulin receptors	Inhibit insulin receptors
Immune System	Enhance	Depress
Prostaglandins	Encourage production and balance	Depress production; cause imbalances

The Many Roles of Saturated Fat

CELL MEMBRANES – should be 50% saturated fatty acids.

BONES – Saturated fats help the body put calcium in the bones.

HEART DISEASE – Lower Lp(a), a marker for heart disease.

HEART FUNCTION – Saturated fats are preferred food for the heart.

LIVER – Saturated fats protect the liver from alcohol & other poisons.

LUNGS – Can't function without saturated fats.

KIDNEYS – Can't function without saturated fats.

IMMUNE SYSTEM – Enhanced by saturated fats.

ESSENTIAL FATTY ACIDS – Work together with saturated fats.

DETOXIFICATION – Supports body's detox mechanisms

The Many Roles of Short and Medium-Chain Saturated Fatty Acids

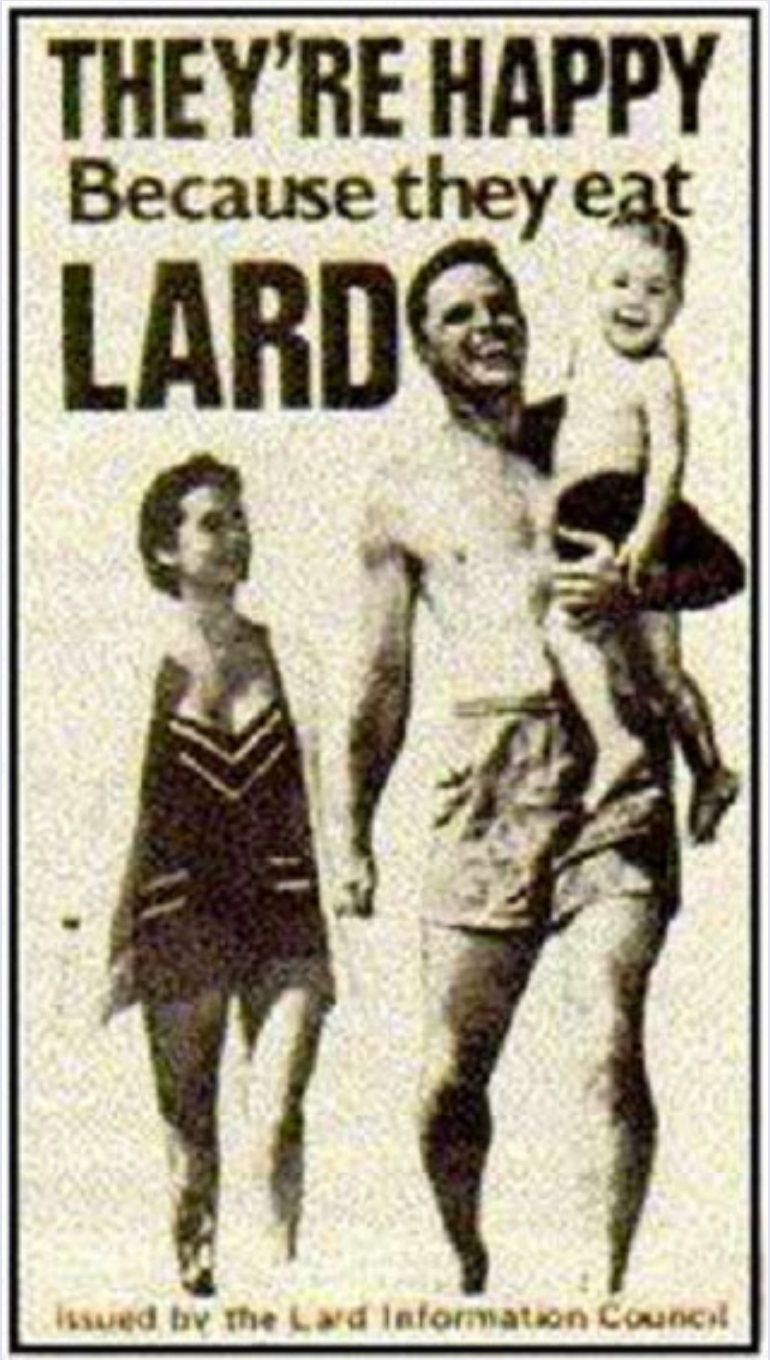
METABOLISM – Raise body temperature and give quick energy

WEIGHT LOSS – Never stored as fat; used for energy

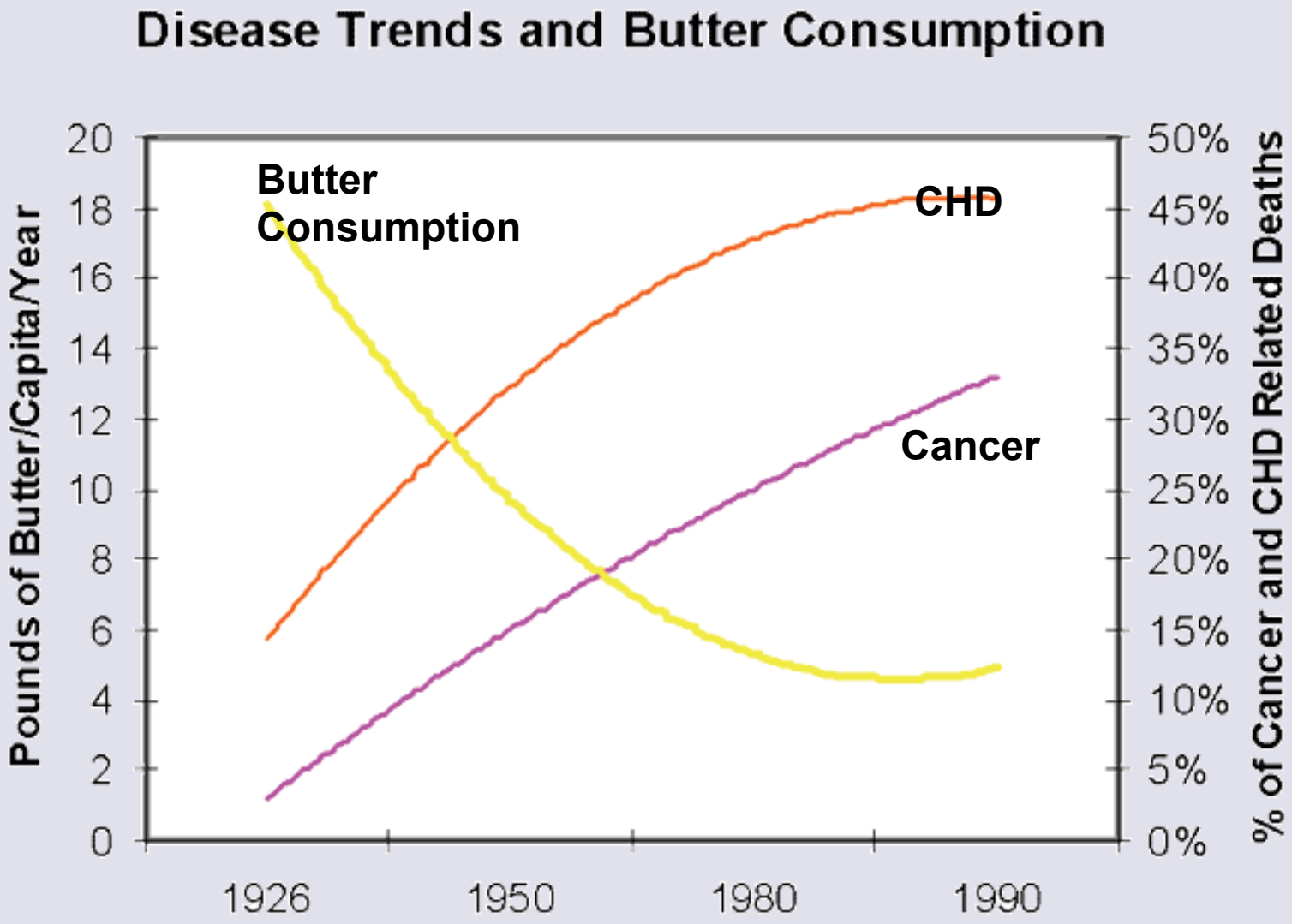
IMMUNE SYSTEM – Stimulate the immune system

INTERCELLULAR COMMUNICATION – Help prevent cancer

ANTI-MICROBIAL – Kill pathogens including candida in the gut



Vitamin D in lard helps the body make neuro-chemicals that protect against depression.


Disease Trends and Butter Consumption
Pounds of Butter/Capita/Year
% of Cancer and CHD Related Deaths
Butter Consumption
CHD
Cancer
0
2
4
6
8
10
12
14
16
18
20
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
50%
1926
1950
1980
1990

1965 Study on Fats

Patients who had already had a heart attack divided into 3 groups and told to consume either

Polyunsaturated Corn Oil

Monounsaturated Olive Oil or

Saturated Animal Fats

1. Corn Oil Group had 30% lower cholesterol but only 52% alive after 2 years
2. Olive Oil Group had 57% alive after 2 years
3. Animal fat Group had 75% alive after 2 years

British Medical Journal 1965 1:1531-33

Heart Disease and Fat Intake

" In studies conducted over 20 years. . . the Harvard School of Public Health showed that total fat intake bore no significant relation to Coronary Artery Disease risk. . .

Four. . . epidemiological studies have shown no evidence that men who eat less fat live longer or have fewer myocardial infarctions (MIs)"

Circulation 2003; 107:10.

How They Cheat!

1. Exaggerating trivial results using concept of relative risk.
2. Use of graphs with unequal intervals.
3. Leaving out data in epidemiological studies.
4. Using surrogate end points (such as cholesterol levels) rather than meaningful end points (such as death from all causes).
5. Cherry picking results to find chance correlations.
6. Changing trial's endpoint (the final result that the study was supposed to measure) to conform to data received.
7. Determining nutrient intake with dietary recall questionnaires.
8. Poor design of food consumption studies (calling trans fats saturated fats, grouping all fats together, grouping natural and processed versions of the same food).
9. Confounding a risk factor with a cause.
10. Abstracts do not accurately reflect findings.
11. Omission of contradictory studies in review articles.

Animal Fats Linked to Increase Breast Cancer Risk, Study Finds

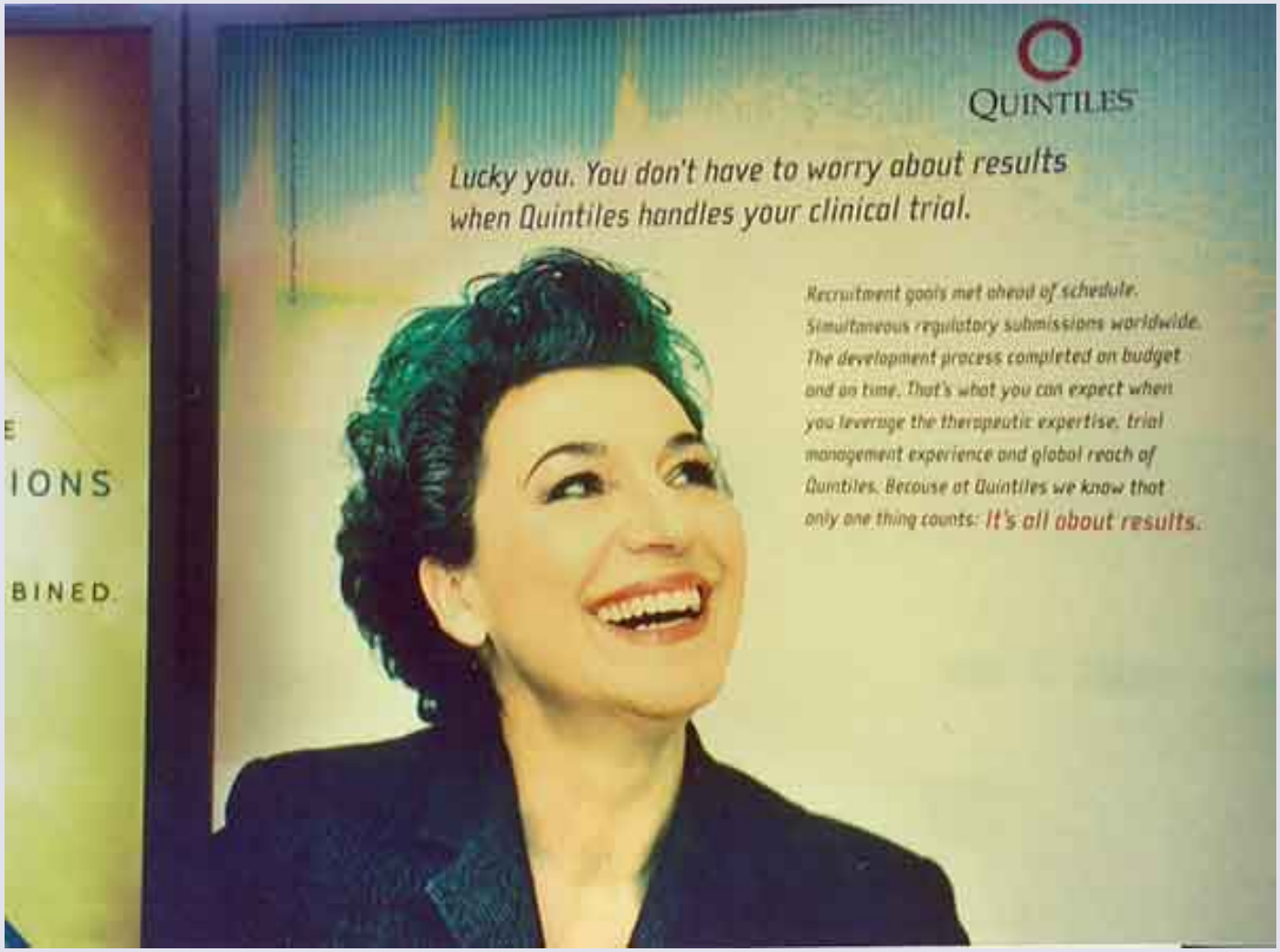
Newspaper report on study: “Eating high-fat red meats and dairy products such as cream may increase the risk of breast cancer in pre-menopausal women. . . I would not recommend that [Atkins] diet for pre-menopausal women unless they replace red meat with poultry and fish. . . Breast cancer risk increases 58% by eating animal fat.”

Int J Cancer 2003 Mar;104(2):221-7

Percentage Calories as Animal Fat	0 -14%	18% -21%	21% - 46%
Chance of Getting Breast Cancer	0.68%	0.88%	0.73%

MANY FLAWS IN THE STUDY

- Twice as many smokers in group with highest animal fat compared to lowest
- Highest quintile had the greatest range (21-46%)
- Differences actually very small; could have been due to other variables.
- The highest level of animal fat had lower risk
- Levels of dietary fats determined by two dietary recall surveys
  (notoriously inaccurate!)
- Trivial differences reported with great hoopla in media
- Studies showing animal fats have no effect on breast cancer rates not reported



It’s all about results!

Cholesterol-Lowering Drugs

STATINS: Latest family of cholesterol-lowering drugs, called statins, acts on an enzyme, HMG-CoA Reductase, to reduce production of cholesterol in the liver.

SOLD AS Lipitor (atorvastatin), Zocor (simvastatin), Mevacor (lovastatin) and Pravachol (pravastatin)

TOXIC: Discovered by the Japanese, who found the substance to be very toxic in animal trials. Mann, *Coronary Heart Disease*, p 14

FDA APPROVAL: Sold their discovery to Merck, a US drug company, which got FDA approval with unexplained speed.

CANCER: In every rodent study, statins caused cancer. *JAMA* 1996;275:55-60

TARGETS: Currently being promoted for healthy men and women categorized as "at risk" because they have cholesterol levels over 200 (5.1).

Statin Side Effects

Fatigue and Weakness
Memory Loss and Reduced Mental Capacity
Neuropathy and Slowed Reactions
Muscle Wasting leading to Back Pain and Heart Failure
Intestinal Disease, Pancreatic Problems
Reduced Libido, Depression
Accidents, Suicide, Cancer

See: askapatient.com, search for Lipitor

HEART FAILURE: Rates of heart failure have doubled since the statins have come into use.

www.fda.gov/ohrms/dockets/dailys/02/May02/052902/02p-0244-cp00001-02-Exhibit_A-vol1.pdf

CO-Q10: Statins reduce body's production of Coenzyme Q10, which is indispensable for normal function of muscles and heart.

VITAMIN A: Statins block the absorption of vitamin A.

Poly-Neuropathy

POLYNEUROPATHY: Characterized by weakness, tingling and pain in the hands and feet as well as difficulty walking.

ASSOCIATED WITH STATINS: Researchers who studied 500,000 residents of Denmark, found that people who took statins were more likely to develop poly-neuropathy.

MORE RISK: Taking statins for one year raised the risk of nerve damage by about 15 percent—about one case for every 2,200 patients. For those who took statins for two or more years, the additional risk rose to 26 percent.

UNDER-REPORTED: Likelihood that incidence of poly-neuropathy from statin use is under-reported.

Neurology 2002 May 14;58(9):1321-2

Honolulu Heart Program 2001

20-YEAR STUDY: Researchers compared changes in cholesterol concentrations over 20 years with all-cause mortality.

LOW CHOLESTEROL, INCREASED RISK OF DEATH: “Our data accords with previous findings of increased mortality in elderly people with low serum cholesterol, and show that long-term persistence of low cholesterol concentration actually increases risk of death. Thus, the earlier that patients start to have lower cholesterol concentrations, the greater the risk of death. . . .

WORST OUTLOOK: “Those individuals with a low serum cholesterol maintained over a 20-year period will have the worst outlook for all-cause morality.” *Lancet*, 2001 358:351-55

SIMILAR FINDINGS published in the *Journal of the American Geriatrics Society*, February 2005 – seniors with low cholesterol had a greater risk of dying.

Meta-Analysis 2003

DEATH RATE THE SAME: In a meta-analysis of 44 trials involving almost 10,000 patients, the death rate was identical at 1 percent of patients in each of the three groups—those taking Lipitor, those taking other statins and those taking nothing.

ADVERSE EFFECTS: Furthermore, 65 percent of those on treatment versus 45 percent of the controls experienced an adverse event.

PATIENTS WITHDREW FROM TREATMENT: Three percent of the Lipitor-treated patients and 4 percent of those receiving other statins withdrew due to treatment-associated adverse events, compared with 1 percent of patients on the placebo.

Am J Cardiol 2003; 92:670-676

Lipitor Ad

Important information:

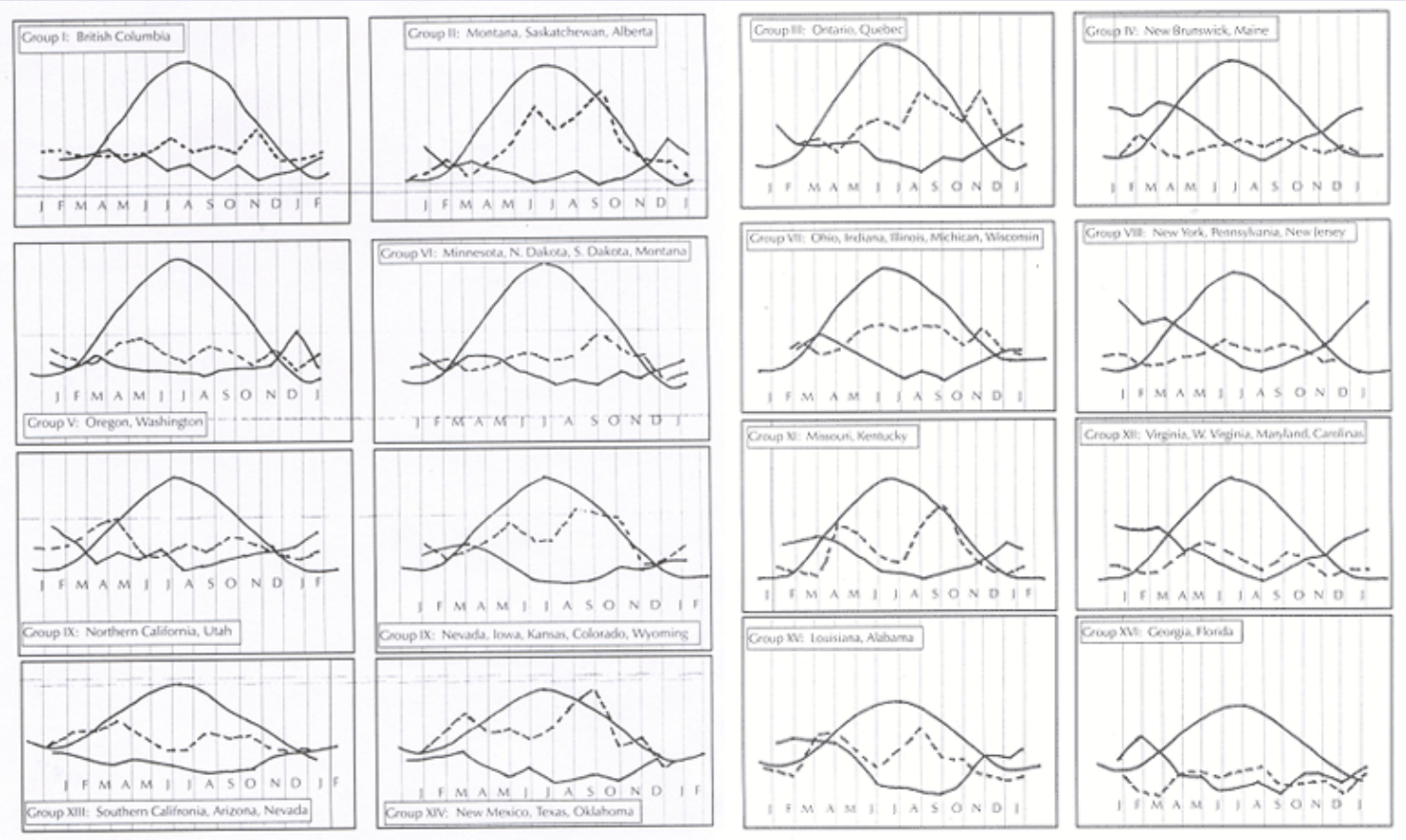
LIPITOR® (atorvastatin calcium) is a prescription drug used with diet to lower cholesterol. LIPITOR is not for everyone, including those with liver disease or possible liver problems, women who are nursing, pregnant, or may become pregnant. LIPITOR has not been shown to prevent heart disease or heart attacks.

If it ain't cholesterol, what causes heart disease?
Other Theories Proposed to Explain CHD Epidemic

Price	Deficiency of fat-soluble vitamins A and D
Yudkin, Ahrens	Refined carbohydrates
Kummerow, Mann	*Trans* fatty acids from hydrogenated fats
Hodgson	Excess omega-6 from refined vegetable oils
Addis	Oxidized cholesterol and oxidized fats (free radicals)
Shute	Vitamin E deficiency
Pauling	Vitamin C deficiency
McCully	Deficiency of folic acid, B6 and B12
Webb	Protein deficiency
Anderson	Magnesium deficiency
Huttunen	Selenium deficiency
Klevay	Copper Deficiency
Geliejnse	K2 Deficiency

If it ain't cholesterol, what causes heart disease?
More Theories Proposed to Explain CHD Epidemic

Annand	Heated milk protein
Oster	Homogenization
Ellis	Microbial agents (viruses, bacteria)
Benditt	Monoclonal tumor theory
Gofman	Exposure to x-rays
de Bruin	Thyroid deficiency
LaCroix	Coffee consumption
Morris	Lack of exercise
Stern	Exposure to carbon monoxide
Purdey	Exposure to pesticides
Ridker	Inflammation
Marmot	Stress
Ravnskov	Infection
de Mesquita	Acidosis of the Heart
Barker	Low Birth Weight
Smith	Changes & fashions in reporting cause of death



Heart Disease Study by Weston Price

Deaths from Heart Attacks & Pneumonia versus Fat-Soluble Vitamins in Local Butterfat in 16 Districts

Upper Line (Parabola): Hours of sunlight
Dotted Line: Fat-Soluble Activators in Local Butterfat
Solid Line: Deaths from Heart Attacks & Pneumonia in Local Hospitals

Sources of Vitamins A, D and K

SEAFOODS

Fish Eggs

Fish Livers

Fish Liver Oil

Fish Heads

Shell Fish

Oily Fish

Sea Mammals

LAND ANIMALS
GRASS-FED!

Insects

Butter and Cream

Egg Yolks

Liver, Organ Meats

Animal Fat

(Especially mono-gastric animals such as (birds, pig, bear, Guinea pig)

The Cholesterol-CHD Theory
Who Profits?

Cholesterol Testing and Treatment	$100 billion/yr
Hydrogenated Fats & Fabricated Foods	$150 billion/yr
Cancer & Other Diseases Caused by Hydrogenated Fats	$100 billion/yr
Growth Failure and Learning Disabilities in Children	$ 70 billion/yr

Recipe for a Health Care Crisis
(and Enormous Profits)

INGREDIENTS:

greed	*envy*	*ignorance*	*manipulation*
cunning	*extortion*	*lies*	*fraud*

INSTRUCTIONS:

1. Conspire to convince the populace that the natural whole foods that have nourished mankind for millennia (such as eggs, butter, whole raw milk and red meat) are dangerous and unhealthy.
2. Train the medical profession to advocate antibiotics, vaccinations, fluoride and fabricated foods as scientifically proven methods for preventing illness.
3. Ignore or suppress healing methods that work; claim that real diseases have no cure or do not exist.
4. Define normal human conditions such as menopause and average cholesterol levels as illnesses which must be treated with expensive drugs that create serious side-effects.

Stew, broil, half-bake or boil as occasion requires. Serves 300,000,000

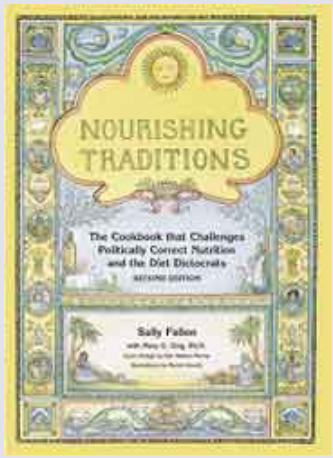
Resources

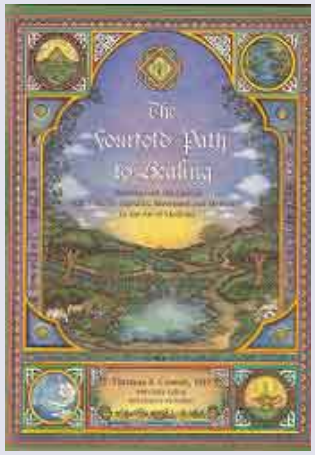
Many articles on
cholesterol, fats and heart disease
at westonaprice.org

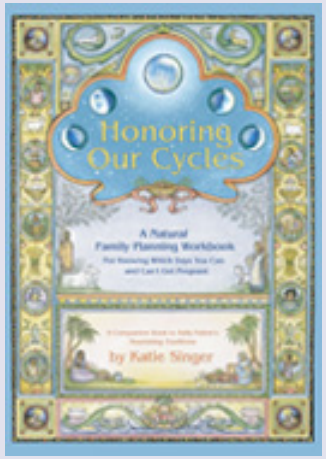
See also: cholesterol-and-health.com
www.ravnskov.nu/cholesterol.htm

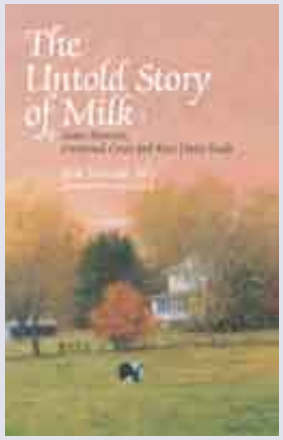
Books from NewTrends Publishing

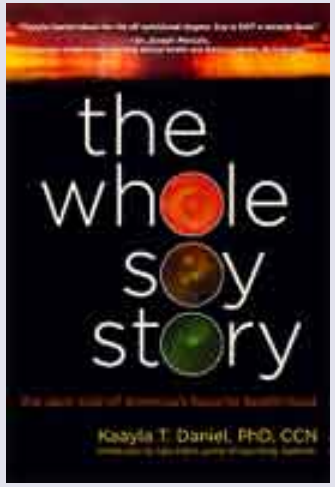
www.newtrendspublishing.com, (877) 707-1776

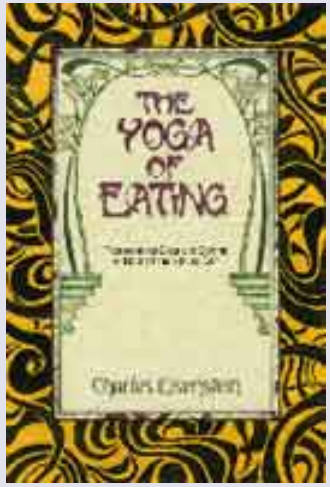


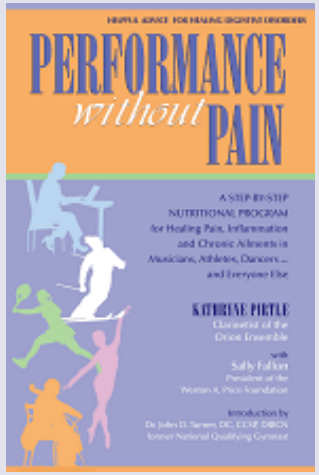


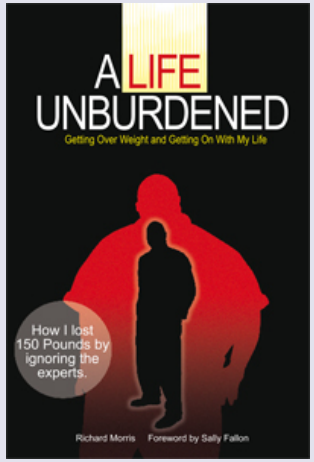




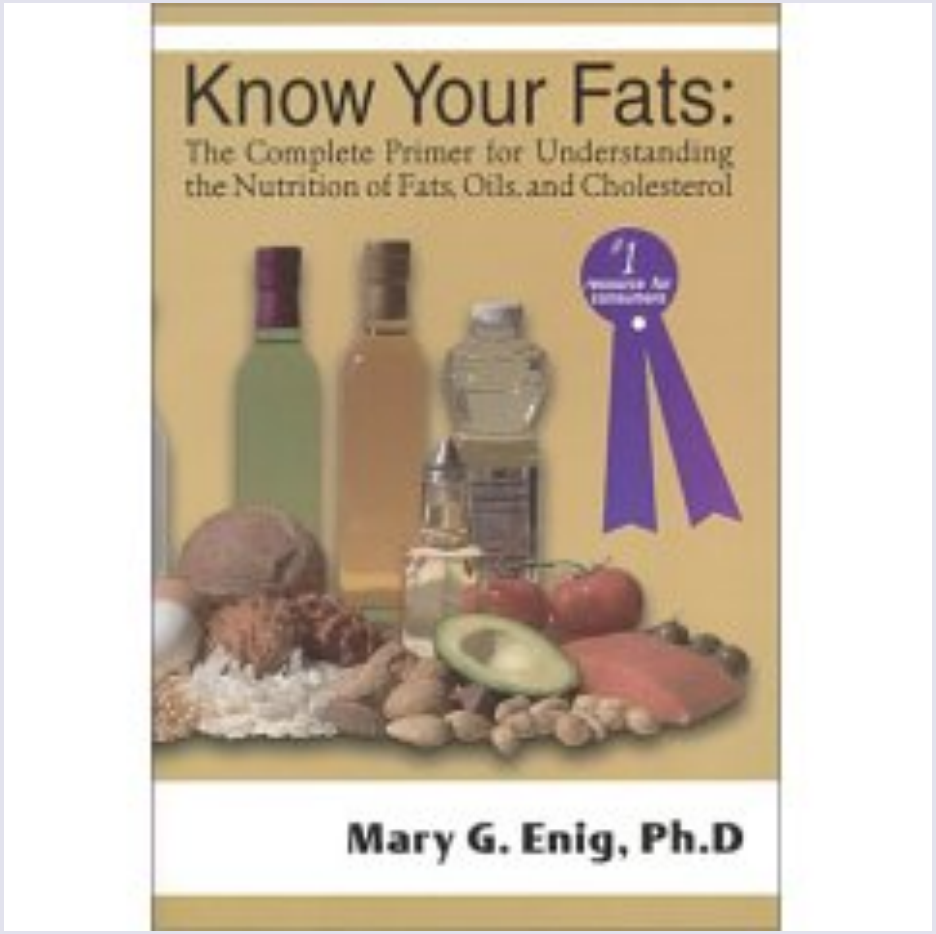








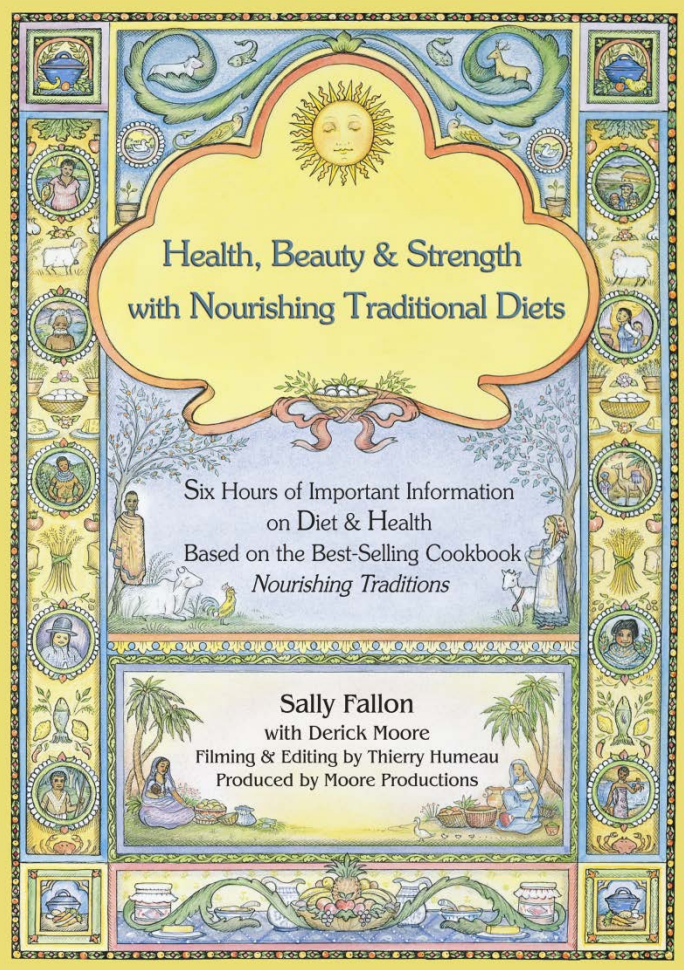
Know Your Fats
Mary G. Enig, PhD



Bethesdapress.com

Traditional Diet Seminar on DVD

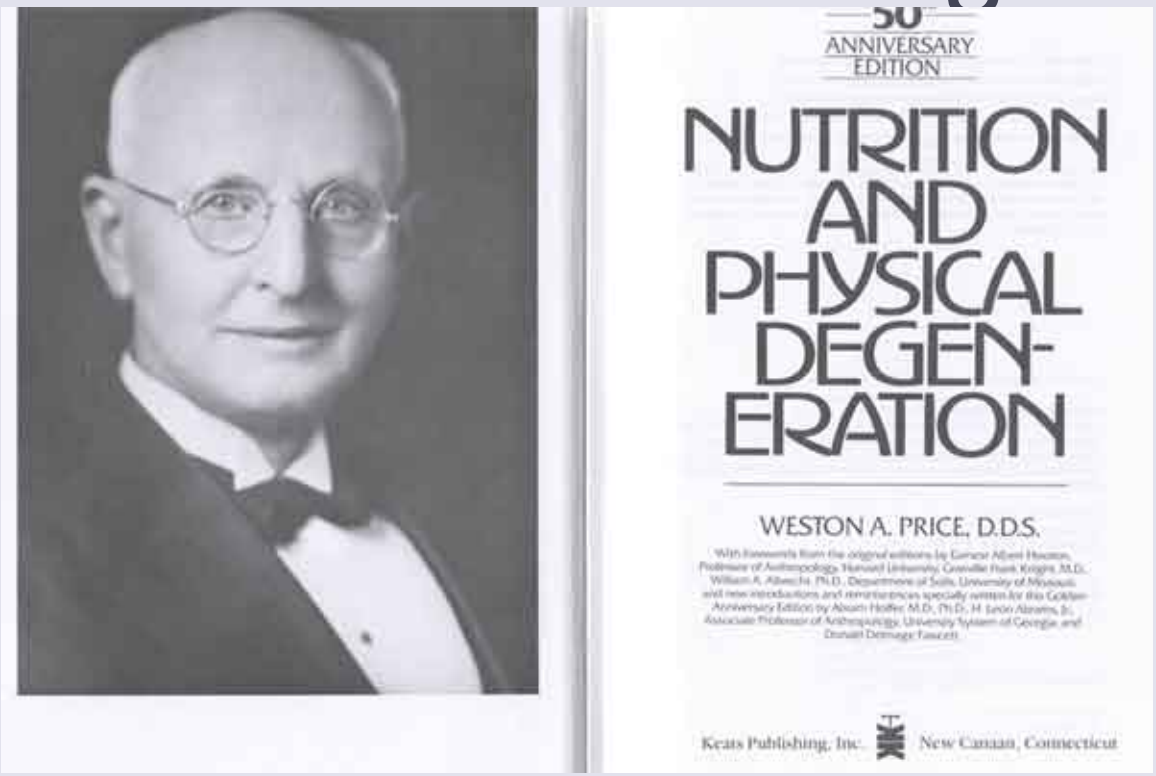
www.NewTrendsPublishing.com



Five-Hour Seminar on Nourishing Traditional Diets

3-DVD Set
$69.95

Dr. Price's Pioneering Work



The Price-Pottenger Nutrition Foundation
www.price-pottenger.org
(619) 462-7600

Summary of Dietary Principles

Traditional diets *maximized* nutrients while
modern diets *minimize* nutrients

TRADITIONAL DIETS	MODERN DIETS
Foods from fertile soil	Foods from depleted soil
Organ meats over muscle meats	Muscle meats, few organs
Animal fats	Vegetable oils
Animals on pasture	Animals in confinement
Dairy products raw and/or fermented	Dairy products pasteurized
Grains and legumes soaked/fermented	Grains refined, extruded
Bone broths	MSG, artificial flavorings
Unrefined sweeteners (honey, maple syrup)	Refined sweeteners
Lacto-fermented vegetables	Canned vegetables
Lacto-fermented beverages	Modern soft drinks
Unrefined salt	Refined salt
Natural vitamins in foods	Synthetic vitamins added
Traditional Cooking	Microwave, Irradiation
Traditional seeds/Open pollination	Hybrid seeds, GMO seeds