

Treating the Cause to Prevent and Reverse Heart Disease

Caldwell B. Esselstyn Jr., M.D.

**Dr Esselstyn reports no known
financial conflicts.**

Absence of Coronary Artery Disease

- Rural China
- Papua Highlanders
- Central Africa
- Tarahumara Indians



Early Atherosclerosis Present in Virtually All Americans

Strong JP et al. Prevalence and extent of atherosclerosis in adolescents and young adults: Implications for prevention from the Pathobiological Determinants of Atherosclerosis in Youth Study. JAMA 1999 Feb 24; 281:727-35.



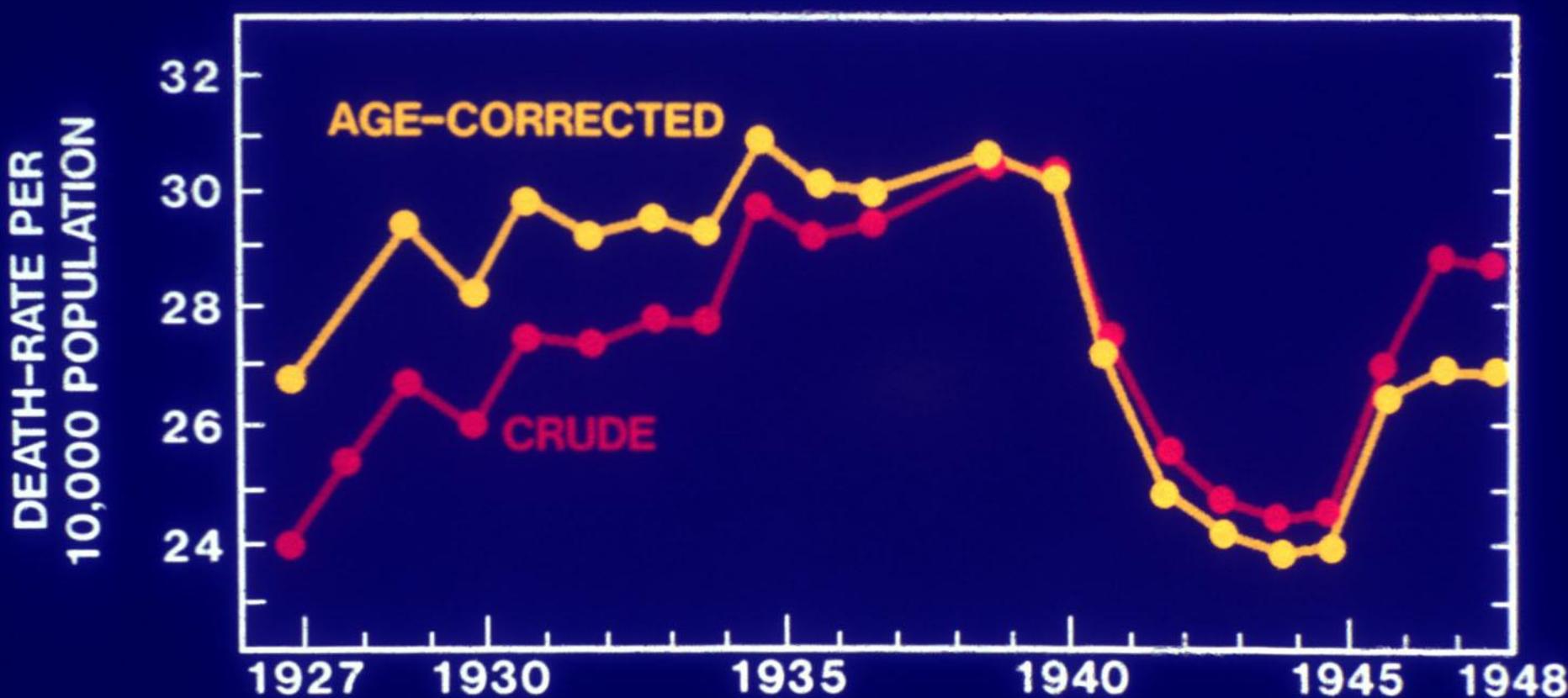
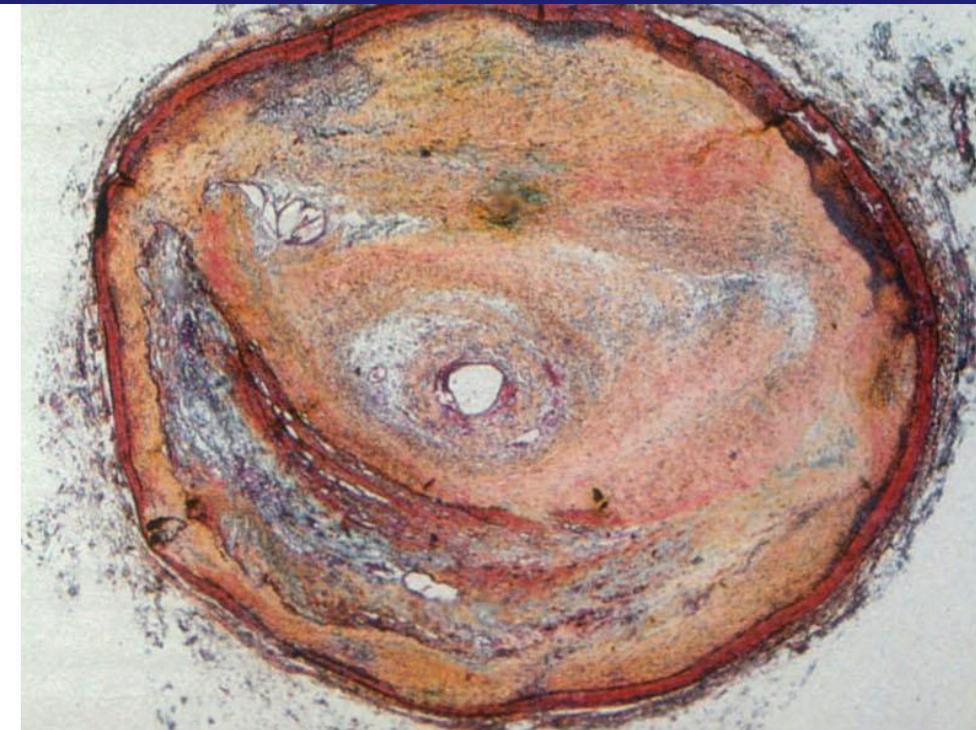
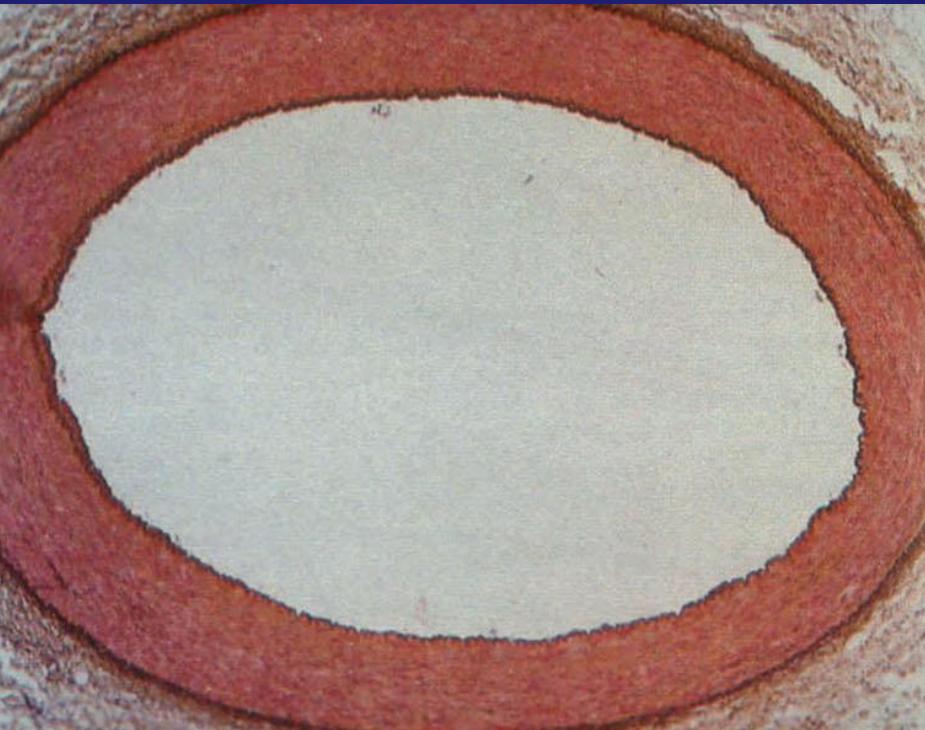
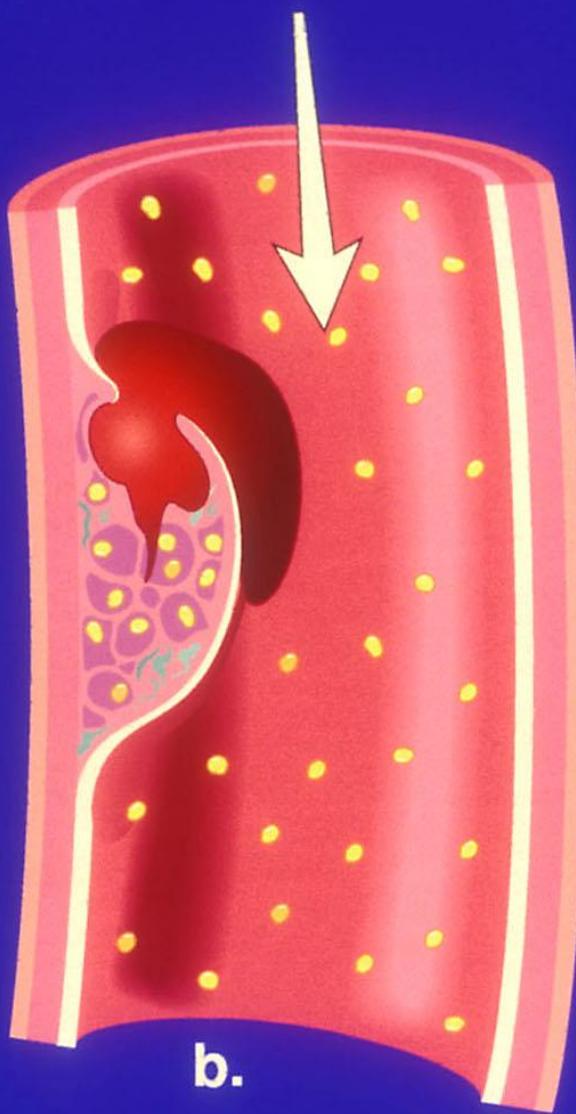
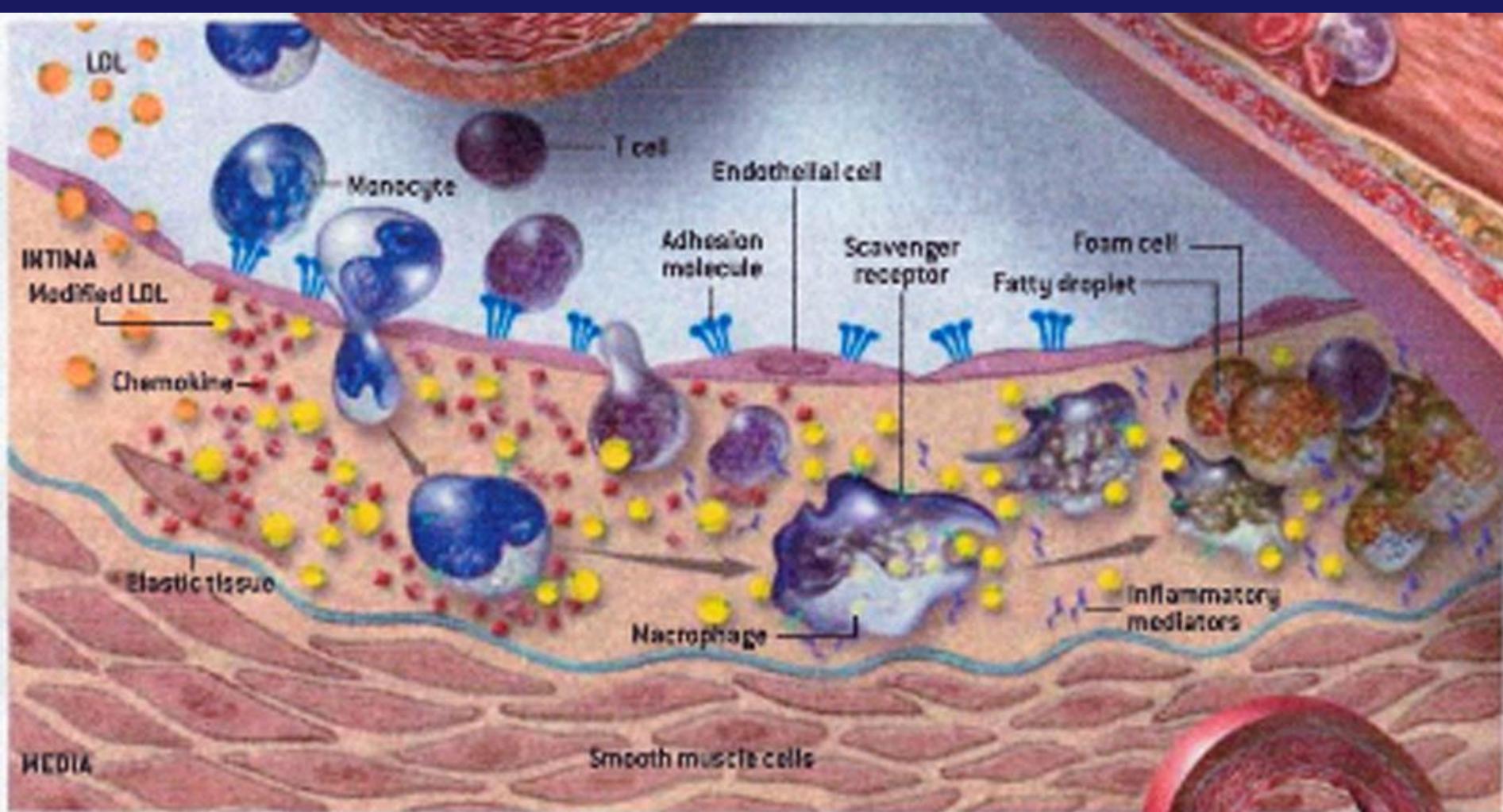


Fig. 1- Mortality from circulatory diseases in Norway in 1927-1948.
Standard population = population of Norway in 1940.





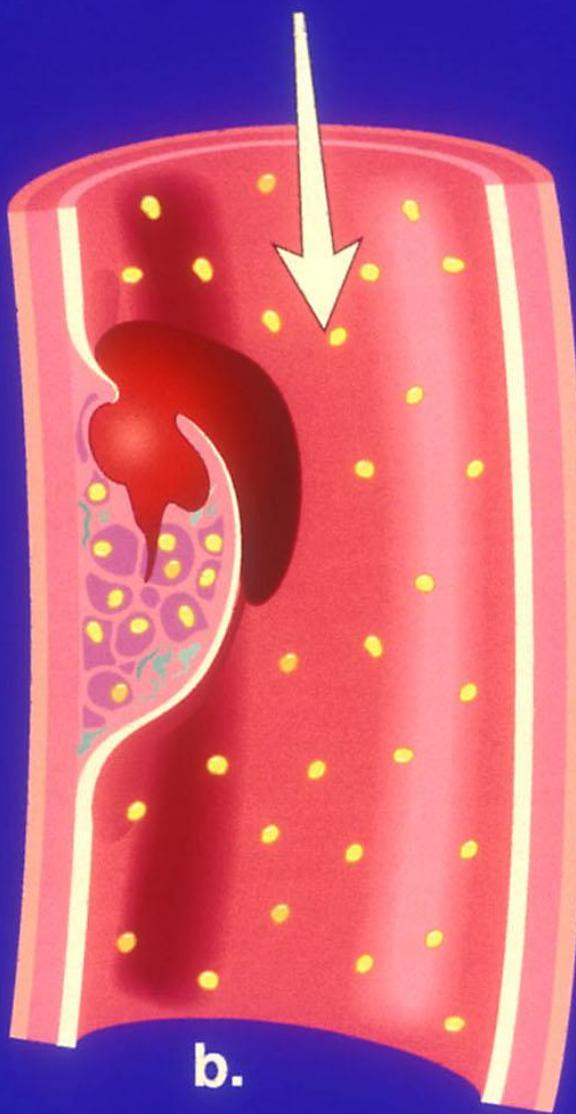


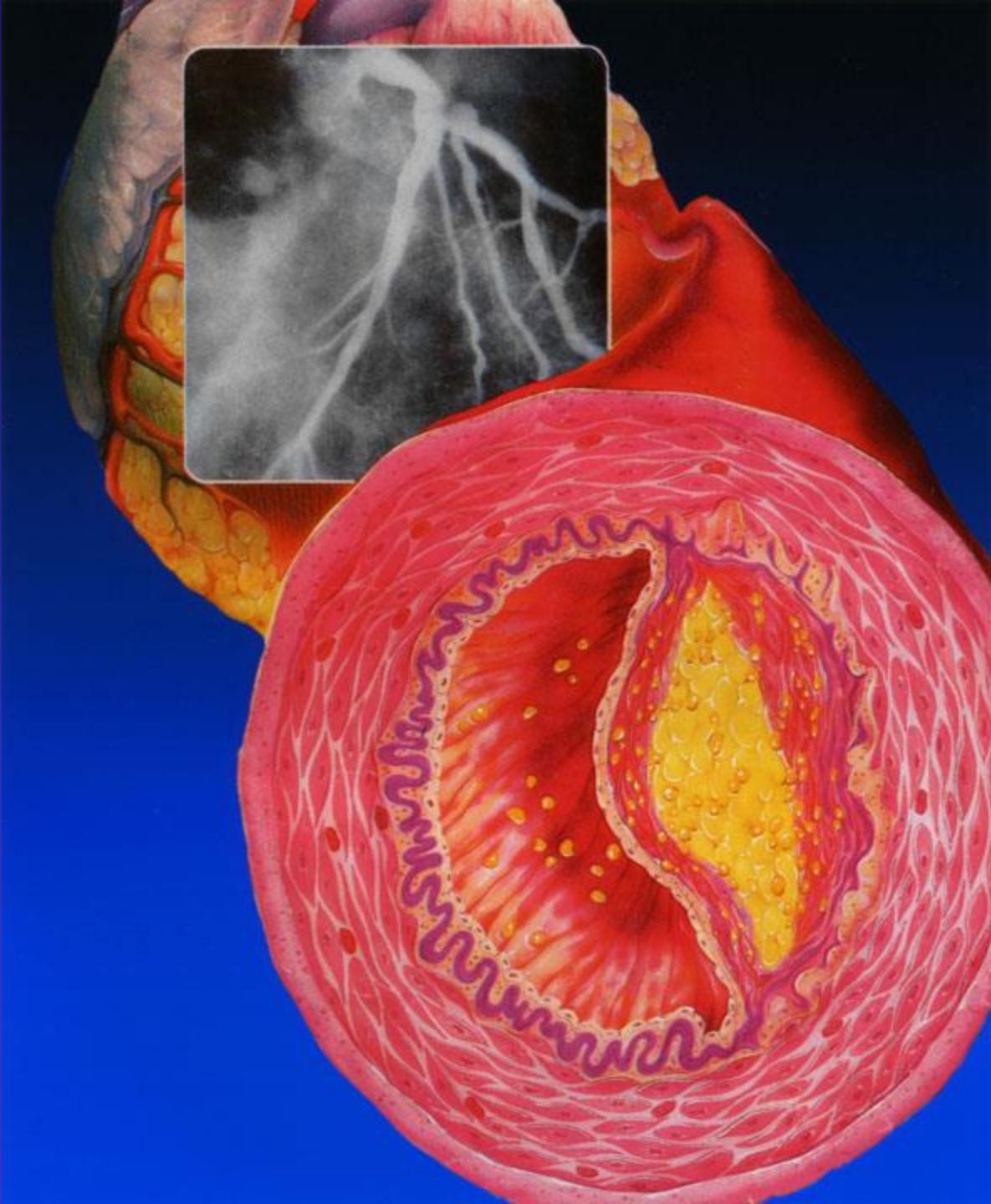
BIRTH OF A PLAQUE

1 Excess LDL particles accumulate in the artery wall and undergo chemical

2 In the intima, the monocytes mature into active macrophages. The macrophages







Nitric Oxide Functions

- 1. Prevents Stickiness**
- 2. Vasodilatation**
- 3. Avoids Arterial Thickening**
- 4. Prevents Blockages**
- 5. Prevents smooth muscle migration**
- 6. Destroys foam cells**

Treating The Cause

Endothelial Cell

Endothelial Progenitor Cell

HDL Cholesterol

**Dimethyl Arginine Dimethylamino
Hydrolase**

Participants 1985 - 1988

23 men, 1 woman with severe triple vessel coronary artery disease – age range 44 - 68

Avoid

- Oil
- Fish
- Fowl
- Meat
- Dairy
- Sugar
- Caffeinated
Coffee



Olive, soybean and palm oils intake have a similar acute detrimental effect over the endothelial function in healthy young subjects

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Manuel A. Lindarte ^a, Cristina Villa-Roel ^a, Elieth Gomez ^b,
Roberto Gutierrez ^c, Carlos Cure-Cure ^d, Patricio López-Jaramillo ^{a,*}

Lecithin and Carnitine

Eggs

Milk

Cream

Dairy

Liver

Red Meat

Poultry

Pork

Duck

Lamb

Venison

Shell Fish

Fish



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 News

Carcinogenicity of consumption of red and processed meat

Véronique Bouvard, Dana Loomis, Kathryn Z Guyton, Yann Grosse, Fatiha El Ghissassi, Lamia Benbrahim-Tallaa, Neela Guha, Heidi Mattock, Kurt Straif on behalf of the International Agency for Research on Cancer Monograph Working Group

Published Online: 26 October 2015

Foods to be Included

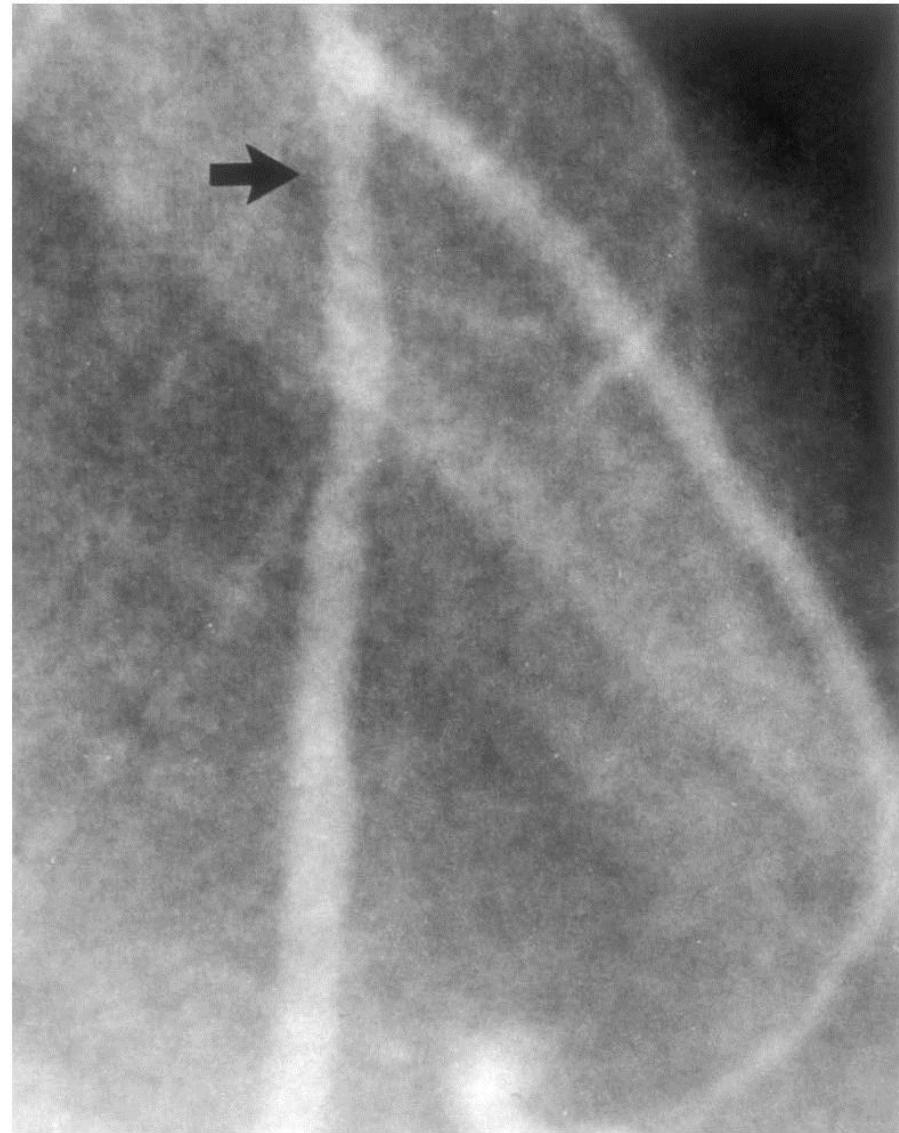
- Whole Grains
- Legumes, lentils
- Vegetables
- Fruit

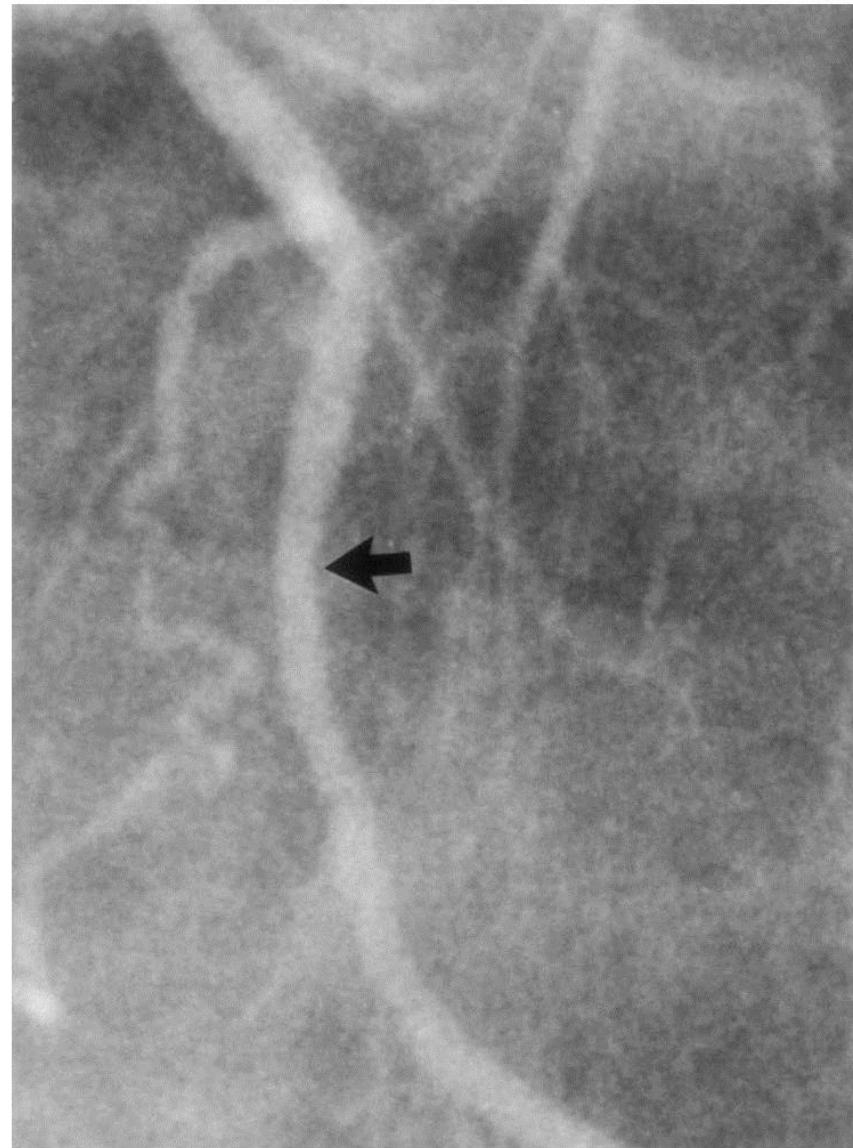


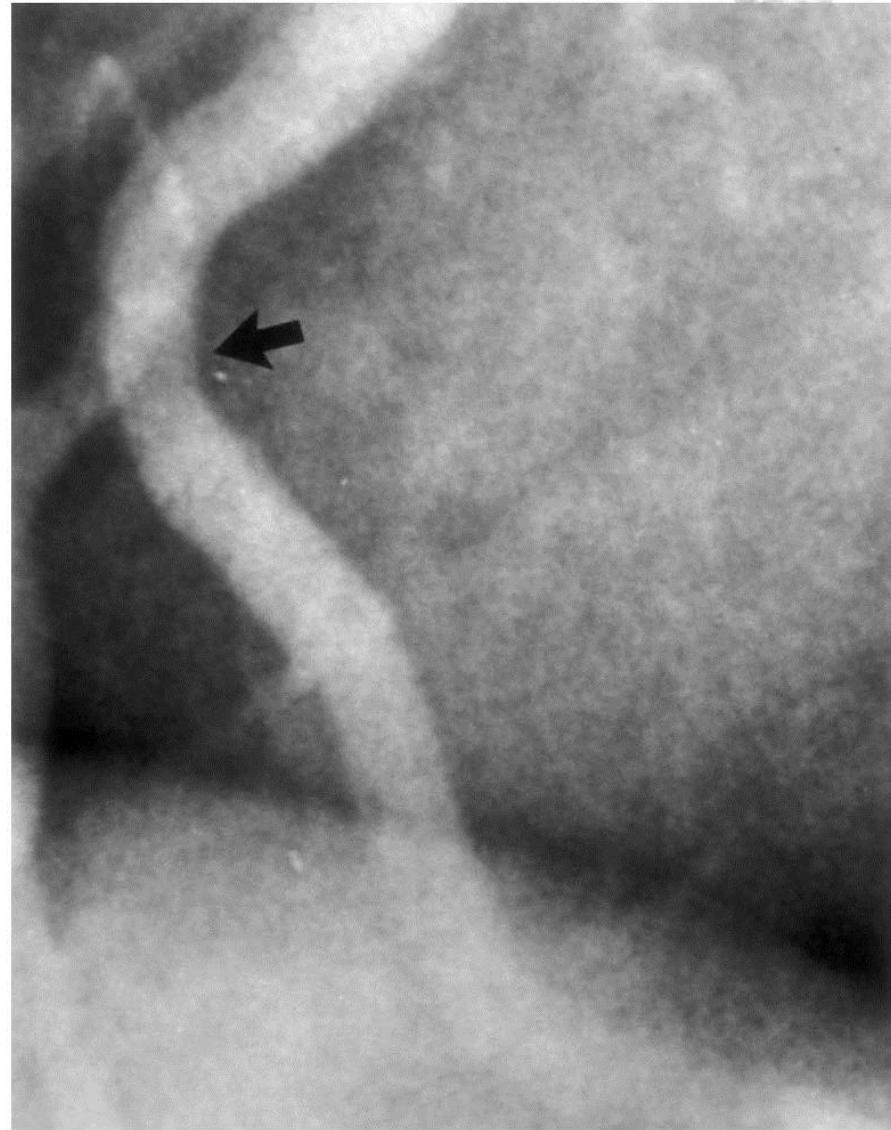
Original.



Chunky.



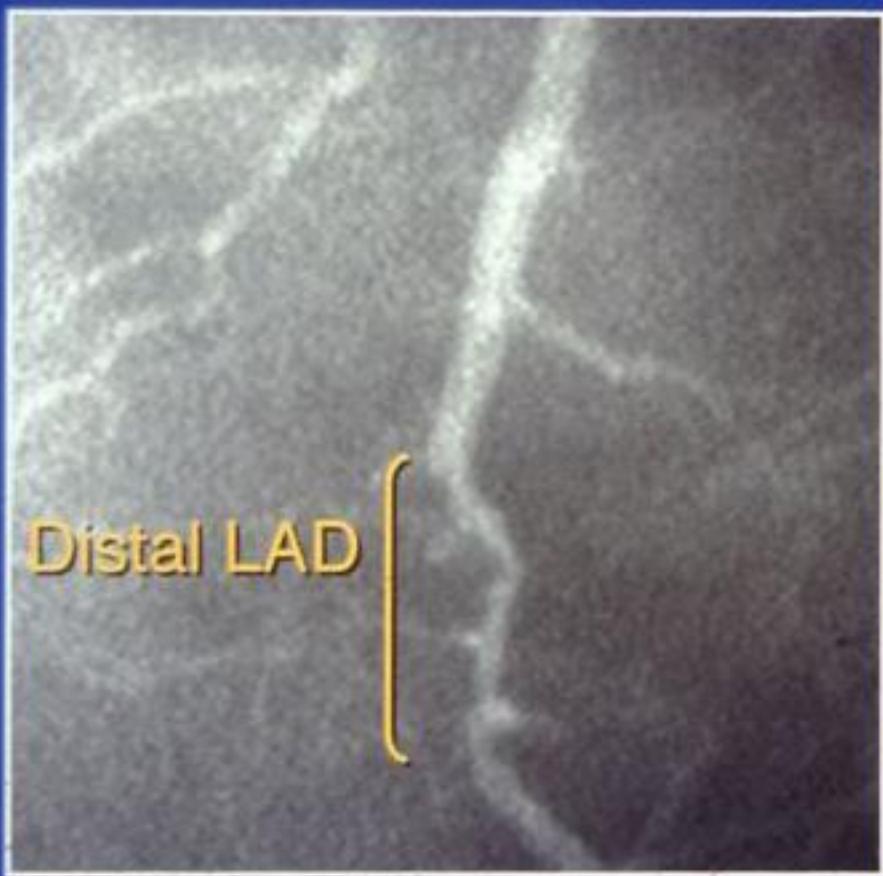






Reversal of Coronary Disease

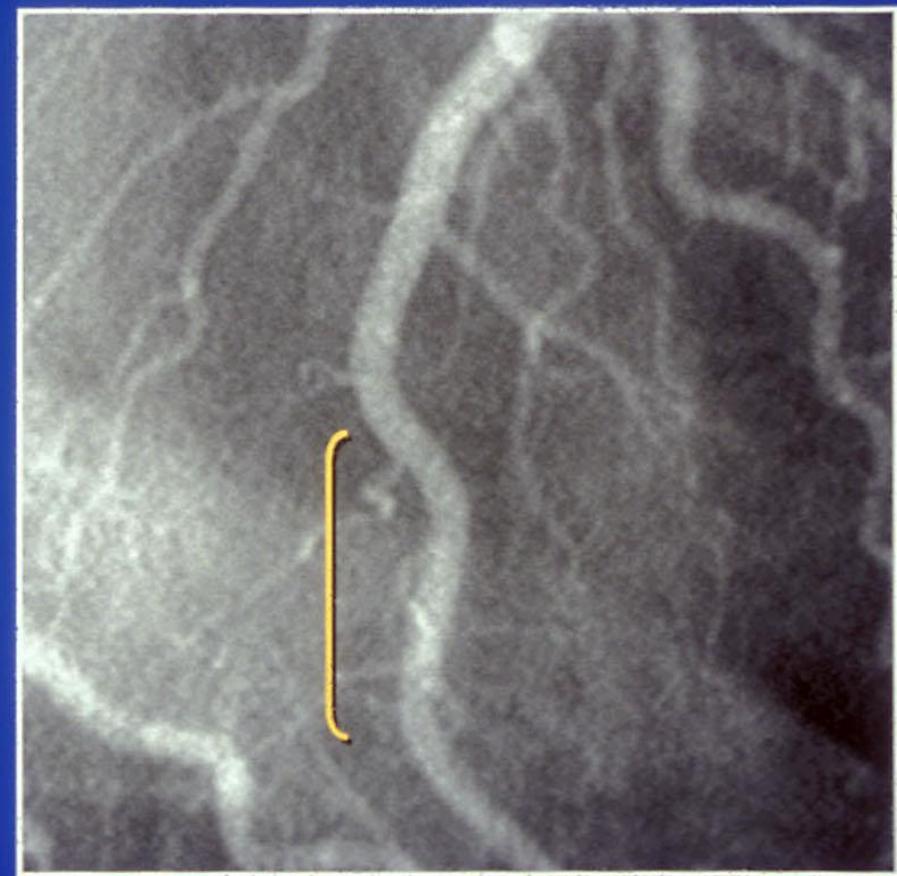
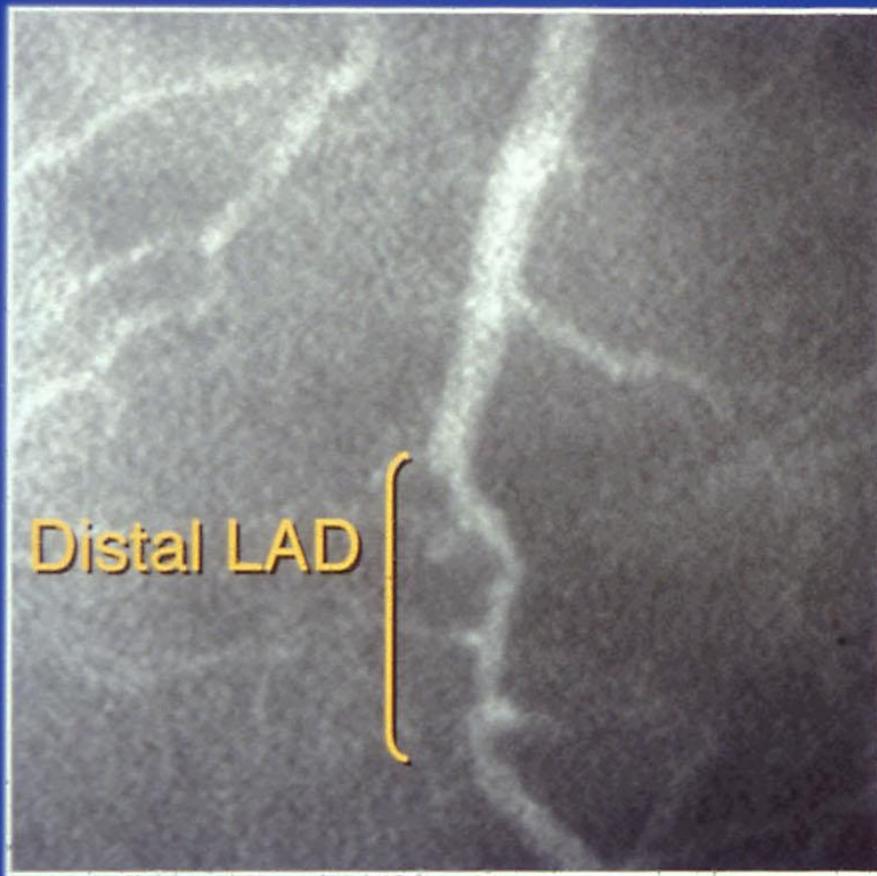
November 27, 1996



Reversal of Coronary Disease

November 27, 1996

July 22, 1999



12 – Year Analysis of Dropouts

6 Patients – 13 New Cardiac Events

Increased angina	4
Ventricular tachycardia	2
Bypass surgery	4
Angioplasty	1
Congestive heart failure	1
Death from arrhythmia	1

8 Years Prior to Study

49 Coronary Events in 18 Patients

Increased angina	18
Angiographic disease progression	13
Bypass surgery	7
Infarctions	4
Strokes	3
Angioplasty	2
Worsening stress test	2

18 Patients Followed 12 Years

- 49 coronary events during 8 years prior to study
- None in 17 compliant patients during 12 years

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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.

Treating the Cause 3.75 Years Follow-Up

Lost to Follow Up	2
Adherent (89%)	177
Non-Adherent	<u>21</u>
TOTAL	200

Patients With Intervention (119)

Patients Avoiding Intervention (27)

Severity Index 146/177 = 82%

J Fam Pract Vol 63 July 2014

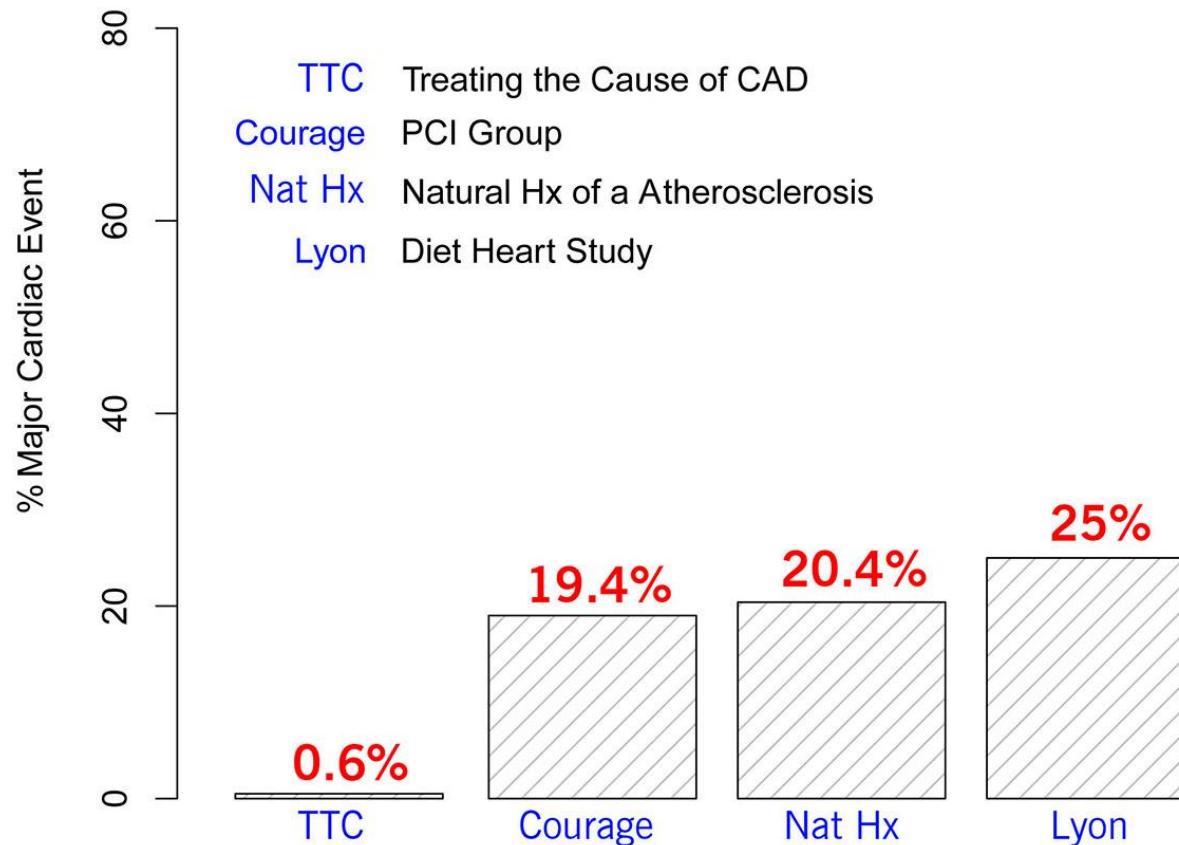
Recurrent Events(%)

Adherent 0.6

Non-Adherent 62

Treating The Cause

Recurrent Major Cardiac Events Study Comparison



EXPERIMENTAL & CLINICAL

Cardiology

EXPERIMENTAL & CLINICAL CARDIOLOGY

Volume 20, Issue 7, 2014

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Authors: Caldwell Esselstyn and Mladen Golubic

How to reference: The Nutritional Reversal of Cardiovascular Disease - Fact or Fiction? Three Case Reports/Caldwell Esselstyn and Mladen Golubic/Exp Clin Cardiol Vol 20 Issue7 pages 1901-1908 / 2014



2011

2014



2010

2014



2011



6 mo later

*“Our daughter’s wedding
was 6 months after starting
a plant based diet.
There is no way Jim
would have been able to
dance all night if he
hadn’t changed his diet.”*
- Jim’s wife



Arrest and Reversal Outcomes

- **No mortality from the diet**
- **No morbidity from the diet**
- **Benefits improve with time**

Quality of Life Issues

Patients are empowered by the knowledge that they are in control of the disease that was destroying their lives

The New England Journal of Medicine

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Volume 328

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Number 3

A POPULATION-BASED STUDY OF DEMENTIA IN 85-YEAR-OLDS

**INGMAR SKOOG, M.D., LARS NILSSON, M.D., PH.D., BO PALMERTZ, M.D., LARS-ARNE ANDREASSON, M.D.,
AND ALVAR SVANBORG, M.D., PH.D.**

1-MAR-1967
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2-JAN-1995
IMAGE 623
STUDY 12

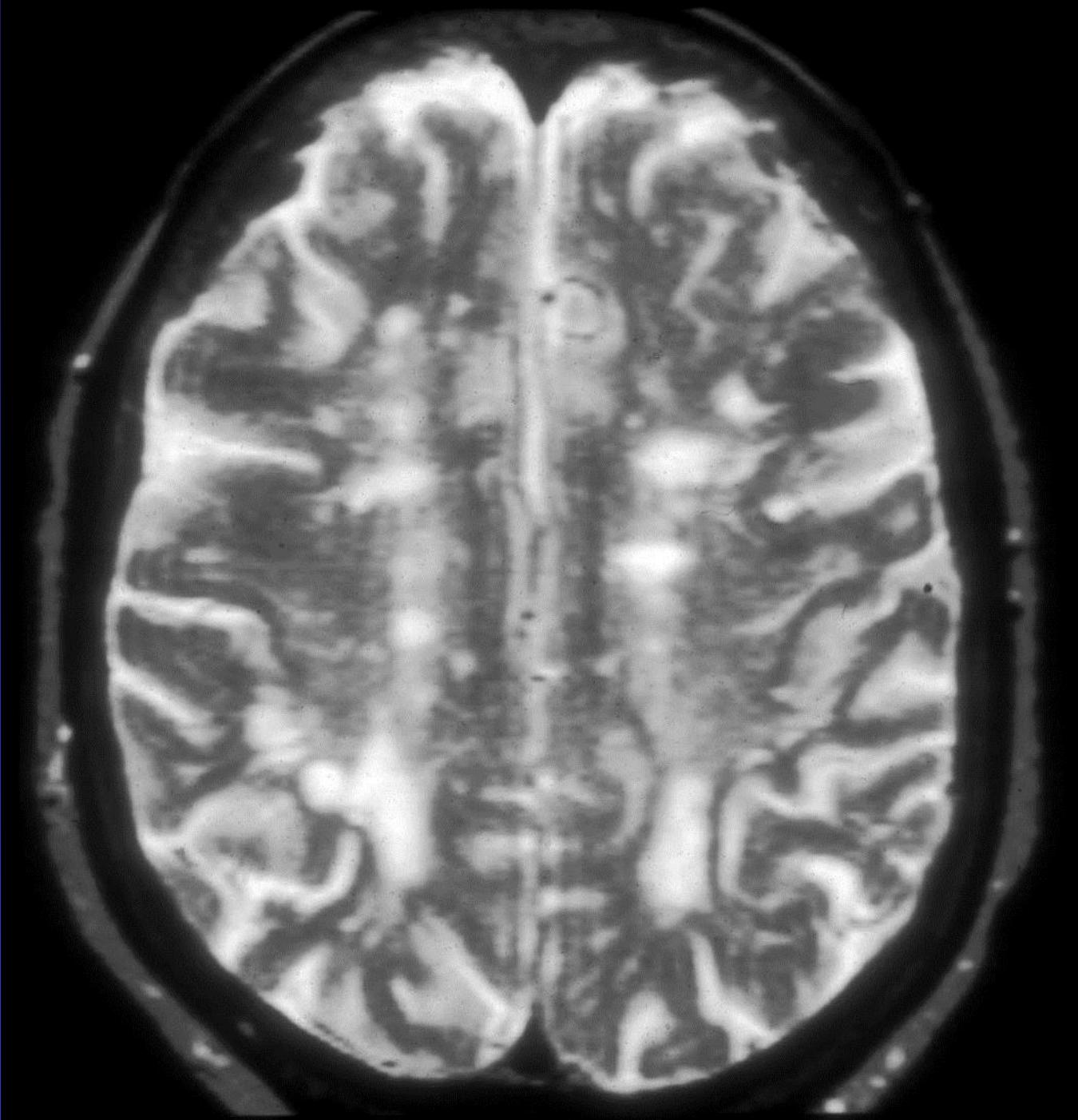
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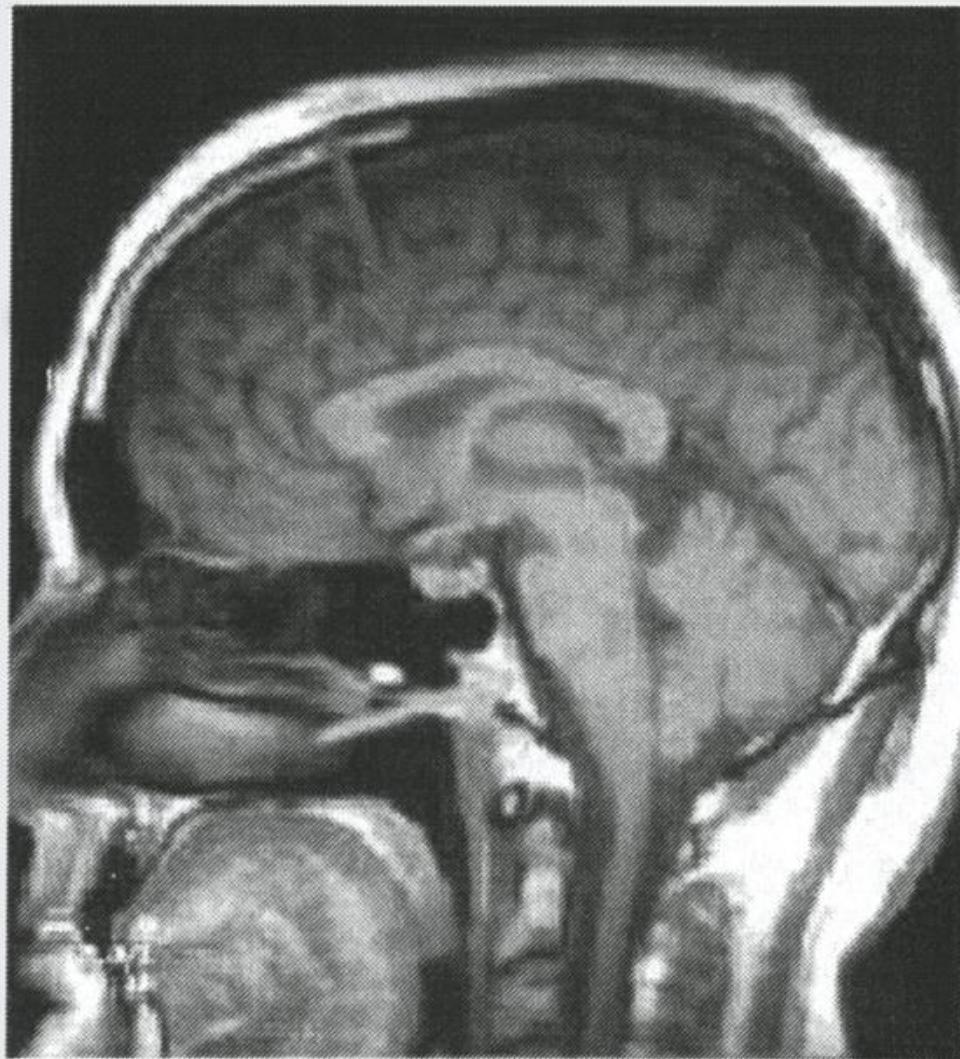
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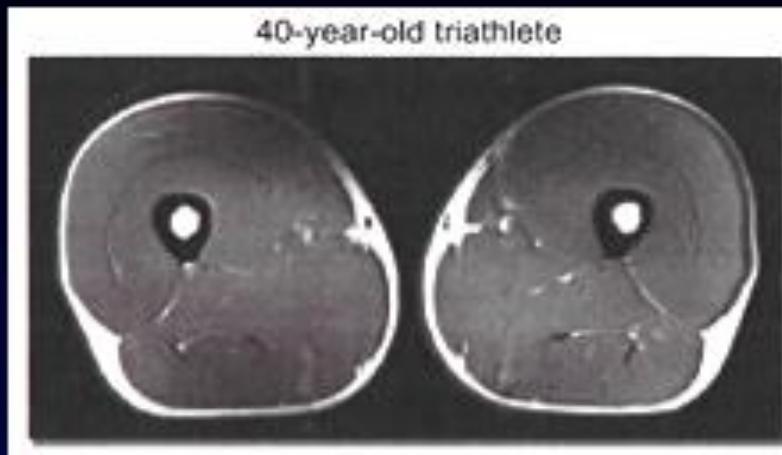
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C 69



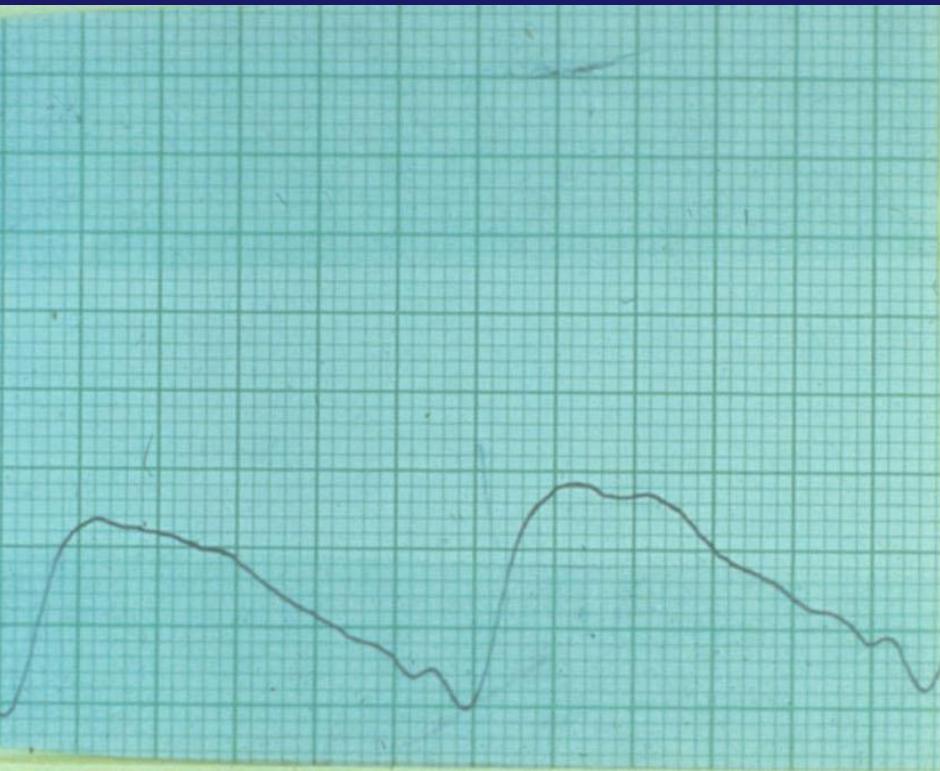


Left Image: Normal Brain **Right Image:** Atrophied Brain

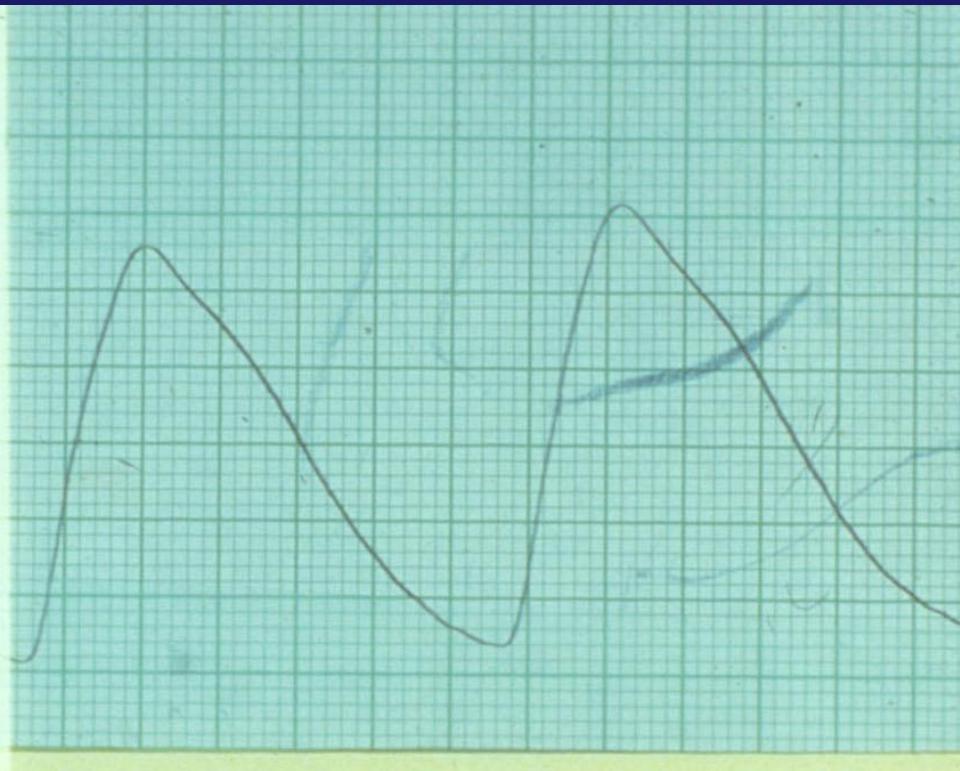
Exercise Preserves Muscle Mass



Wroblewski AP et al. *Phys Sportsmed*.
2011 Sep;39(3):172-8.



Pulse Volume
Rt. Ankle
3/86



Pulse Volume
Rt. Ankle
1/87



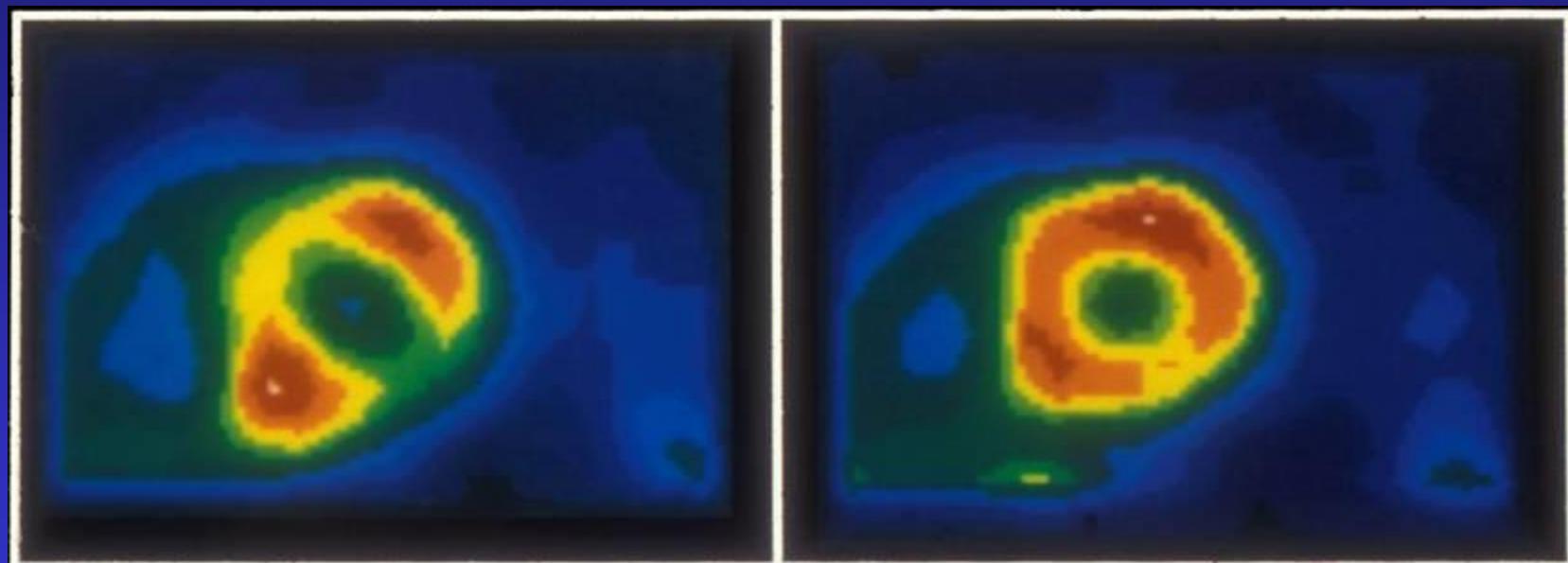


**Baseline Cholesterol
10-14 days**

**248 mg/dl
137 mg/dl**

Left

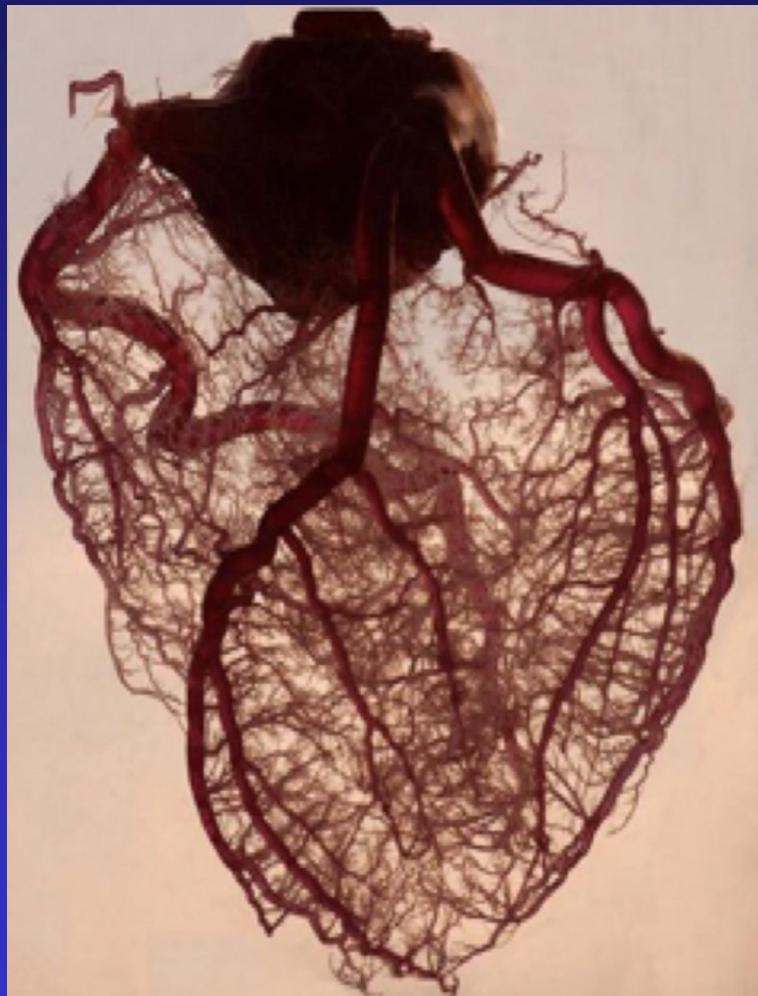
Right



Before Rx

After Rx

Esselstyn 2007



8 Measures of Cardiovascular Disease Reversal

Coronary Angiogram
Stress Test

Pet Rubidium Dipyridamole Scan
Carotid Ultrasound

Pulse Volume

Angina

Claudication

Erectile Dysfunction







