

The Big Fat Surprise

2015 SIXTY-EIGHTH RMC RECIPROCAL MEAT CONFERENCE

NINA TEICHOLZ, AUTHOR OF *THE BIG FAT SURPRISE: WHY BUTTER, MEAT AND CHEESE BELONG IN A HEALTHY DIET*

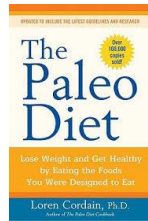
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MERCK Animal Health

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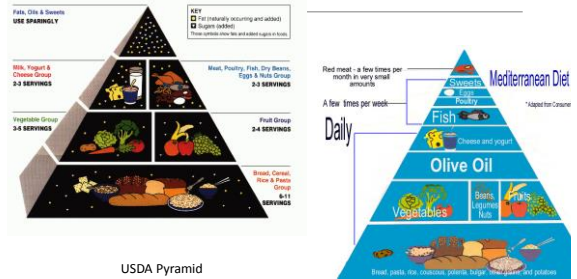
VITAL SIGNS

Risks: More Red Meat, More Mortality

By NICHOLAS BAKALAR
Published: March 12, 2012

The New York Times

Current Dietary Recommendations



68TH RECIPROCAL MEAT CONFERENCE Mediterranean Diet

The Bad News About Red Meat

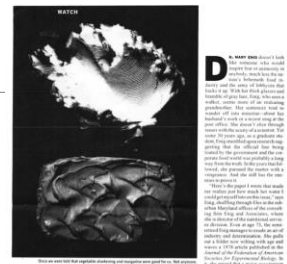
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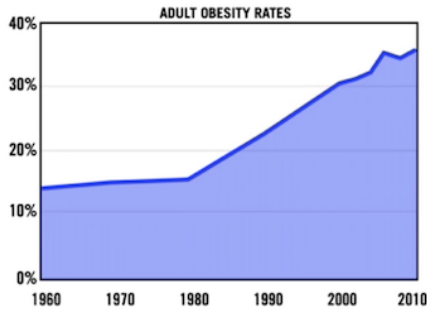
Heart Breaker

More than 30 years ago, a Maryland scientist began making noise about the **meat dangers** associated with trans fats. Now come it back, the FDA so long to tell the rest of us.

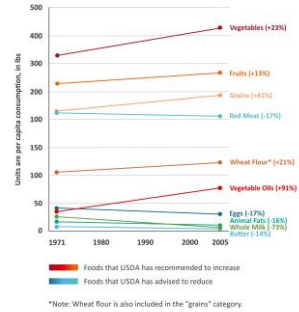
Do you know how to look at a heart? The usual way is to look at it from the front. But if you look at it from the back, you can see the arteries that lead to it. And that's where the trouble is. The arteries can get clogged with plaque, and that can lead to a heart attack. The arteries can also get clogged with trans fats, and that can lead to a heart attack. The arteries can also get clogged with cholesterol, and that can lead to a heart attack. The arteries can also get clogged with... (text continues)

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Change in food consumption in the US: 1971-2005

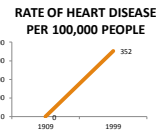


Source: Wells, Helen Heath and Bulch, John C. "Dietary Assessment of Major Trends in U.S. Food Consumption, 1970-2005," US Department of Agriculture, Economic Research Service, Economic Information Bulletin, Number 98, March 2008.

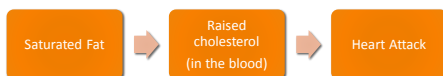
How it All Started



President Eisenhower
(heart attack: Sept. 24, 1955)



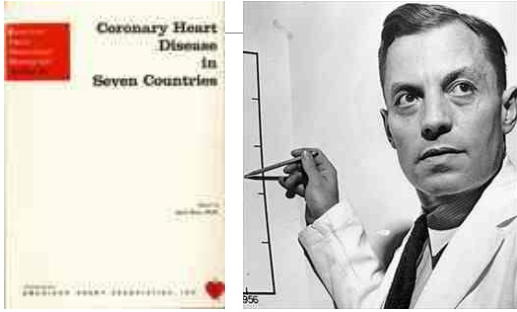
Ansel Keys' Diet-Heart Hypothesis




1961: AHA issues first Dietary Advice against saturated fats




The Seven Countries Study



Politics of Science



National Heart, Lung, and Blood Institute





American Heart Association
Learn and Live

The National Diet-Heart Study Final Report

American Heart Association Monograph Number Eighteen

Published August 15, 1982

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Ignoring Science to the Contrary



Selection bias, continued: Minnesota Coronary Heart Study



Conclusion: "For the entire study population, **no differences** between the treatment and control groups were observed for cardiovascular events, cardiovascular deaths, or total mortality."



Silencing the critics

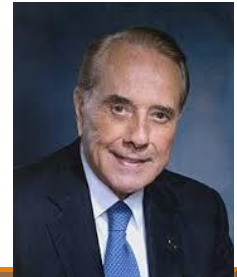
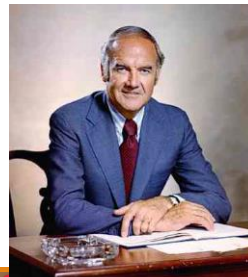


Pete Ahrens
The Rockefeller University



George Mann
Vanderbilt University

Government got involved: 1977 Dietary Goals



All We Want is Love



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Rate of Obesity in US



Saturated Fat Does Not Cause Heart Disease

ACP American College of Physicians
Annals of Internal Medicine
 ESTABLISHED IN 1977 BY THE AMERICAN COLLEGE OF PHYSICIANS

18 March 2014, Vol 160, No. 6

The full content of Annals is available to subscribers

Association of Dietary, Circulating, and Supplement Fatty Acids With Coronary Risk: A Systematic Review and Meta-analysis

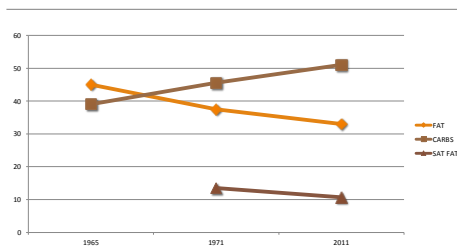
Hahn-Choshinsky MD, PhD, Samerita Wamukua MPH, Soto-Rubio MD, MS, Francesca Crowe PhD, Heather A. Hartz PhD, Laura Johnson PhD, Oscar H. Franco MD, PhD, Adam S. Butterworth PhD, Nita D. Fonarow MScD, PhD, Simon D. Thompson MScPhD, Kees-Tea Kooz, MScPhD, Douglas Mozaffarian MD, ScD, John Garavito, FRCPC, and Emanuele Di Angelantonio, MD, PhD*

Saturated Fat Does Not Cause Cancer

World Cancer Report 2007: No association between fat of any kind and cancer.

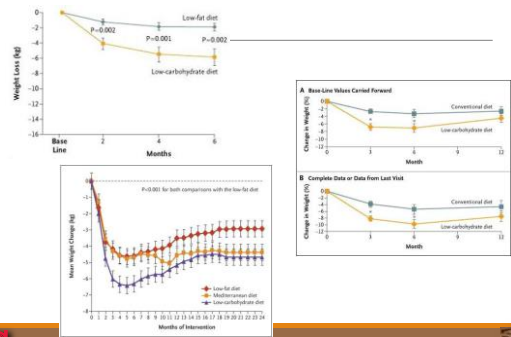
And.... Meat Causes Cancer? So Does Fruit

Major macronutrient shifts in US 1965-2011

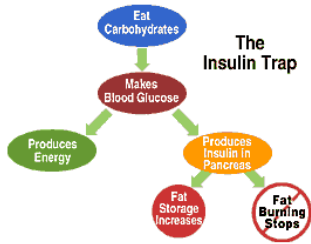


Source: Cohen et. al., Nutrition, 2015

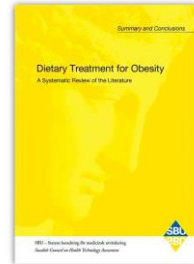
Low-fat vs. Low-carb



How Carbs Make you Fat



Swedish Report on Obesity, 2013



So which one is better for weight control?



In other words... Atkins was right



Personal Take-aways

- A higher fat diet is better for health (40% of calcs or more)
- Especially if you have metabolic diseases (obesity, diabetes, heart disease).
- Anything from lower-carb to "ketogenic"

2014: Turning-Point Year



Take-aways For Meat Science

- A need for studies on positive health value of red meat
- Respond to common argument that “there’s no point” of meat
- Importance of nutritional sufficiency, HDL-C
- Need for RCTs
- Where is the open letter signed by 800 scientists?

2015: Back to Square One with the Dietary Guidelines

- Introduction of “Vegetarian Diet” as one of 3 USDA “Dietary Patterns”
- On Meat:
 - Removal of “lean meat” from list of healthy foods
 - Recommendation to “eat less red meat and processed meat”

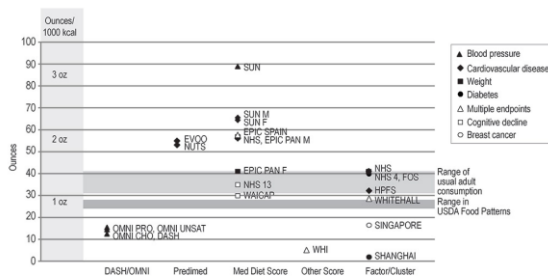


What is the Evidence?

- No “National Evidence Library” review of meat
- Evidence amounts to pro-plant-based USDA-recommended “Dietary Patterns” and sustainability arguments
- Nearly all epi studies. “Meat” defined variously as “meat, sausage, fish, and eggs,” “red meat, processed meat, and poultry,” or various other combinations of meat.”
- Only one RCT cited: on the Mediterranean diet (Estruch 2013), in which meat was not reduced in the experimental group

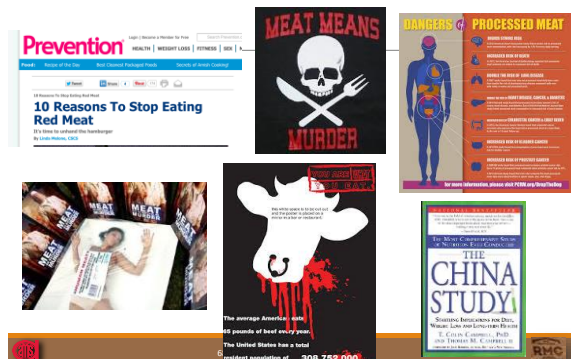
Sole Analysis of Red Meat in the 2015 DGAC Report

Figure D1.59 Red and processed meat intake (g/1000 calories) in dietary patterns identified as having health benefits, in comparison to usual red and processed meat intake by adults, NHANES 2007-2010, and to amounts in the USDA Food Patterns for adults.

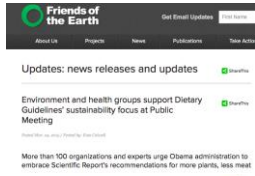


Source: USDA Food Patterns, What We Eat in America, NHANES 2007-2010, articles identified in table D1.31

50 Years of Anti-Meat Bias



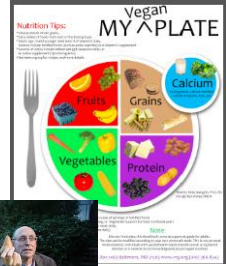
New Fuel: Environmental Movement



My Plate, My Planet

Food for a Sustainable Nation

An Open Letter to Secretary of Health and Human Services Sylvia Mathews Burwell
Secretary of Agriculture Tom Vilsack



"Eat food,
Not too much,
Mostly plants."
-Michael Pollan

The New York Times

Berkeley Food Institute

Achilles Heal

- Vegetarian diet is nutritionally deficient.
- Existing USDA Dietary Patterns don't have enough Vitamin B12, Vitamin D, iron (among other things)
- Heme iron from lean meats is highly bio-available, hence, is an "excellent source," according to DGAC



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