

The Right to Bear Arms



American Gothic
Grant Wood 1930

Mark Cucuzzella MD
Professor of Family
Medicine
West Virginia University

Gus Schumacher
Executive Vice President
Wholesome Wave

**“Let thy food be thy medicine and
thy medicine be thy food”**

Hippocrates, 480 B.C



Farmacology



“All that mankind needs for good health and healing is provided by God in nature, ... the challenge for science is to go find it.”



**Paracelsus
Father of Pharmacology
c. 1493-1541**

“People are fed by the Food Industry,
which pays no attention to health,

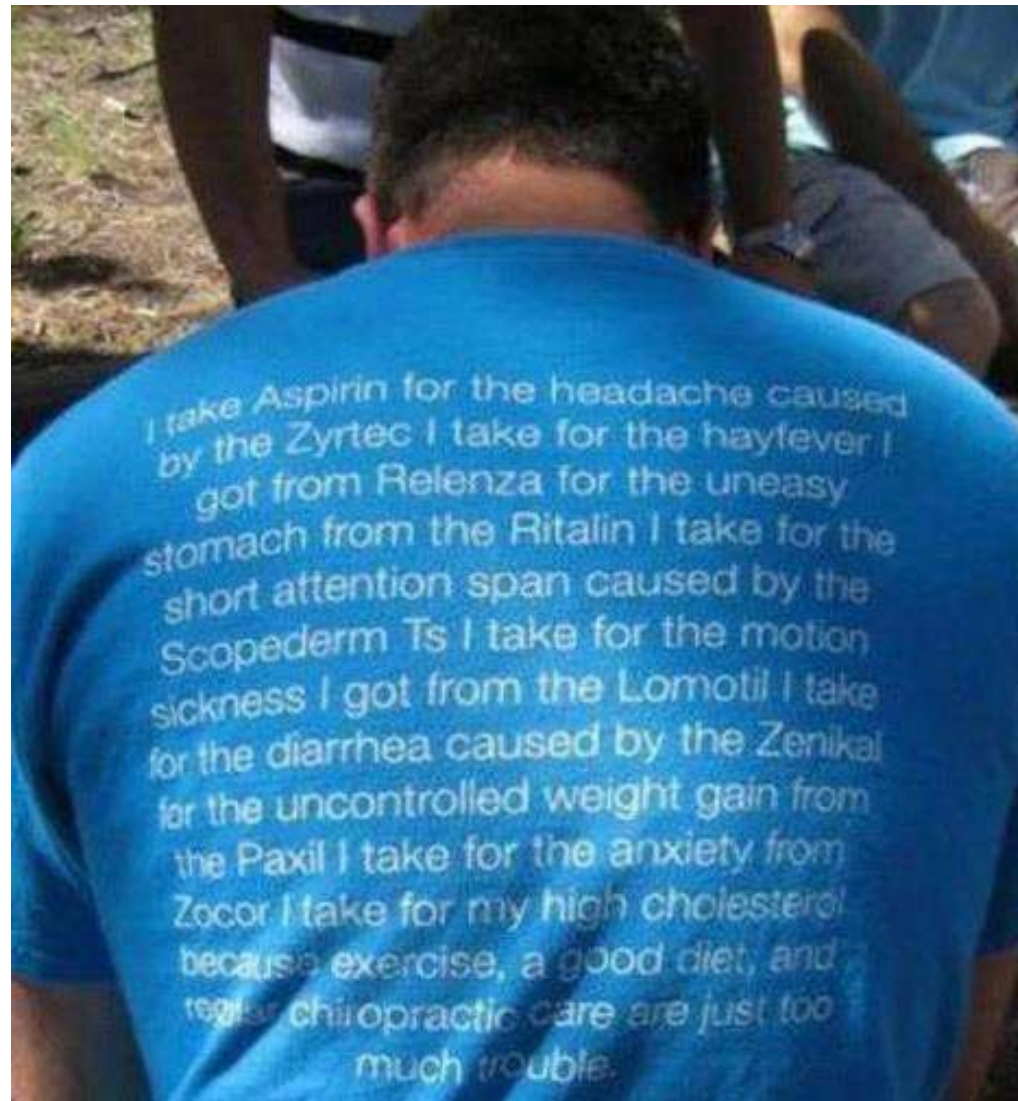


and are treated by the Health Industry,
which pays no attention to food.”

Wendell Berry

Test and Replace Model

One Symptom One Cause One Treatment



What is a Healthy Diet?



Even Lisa is confused!

Atkins Diet?

Vegetarian/Vegan?

Zone Diet?

Macrobiotic?

South Beach Diet?

Juicing?

Food Combining?

Metabolic Typing?

All Raw?

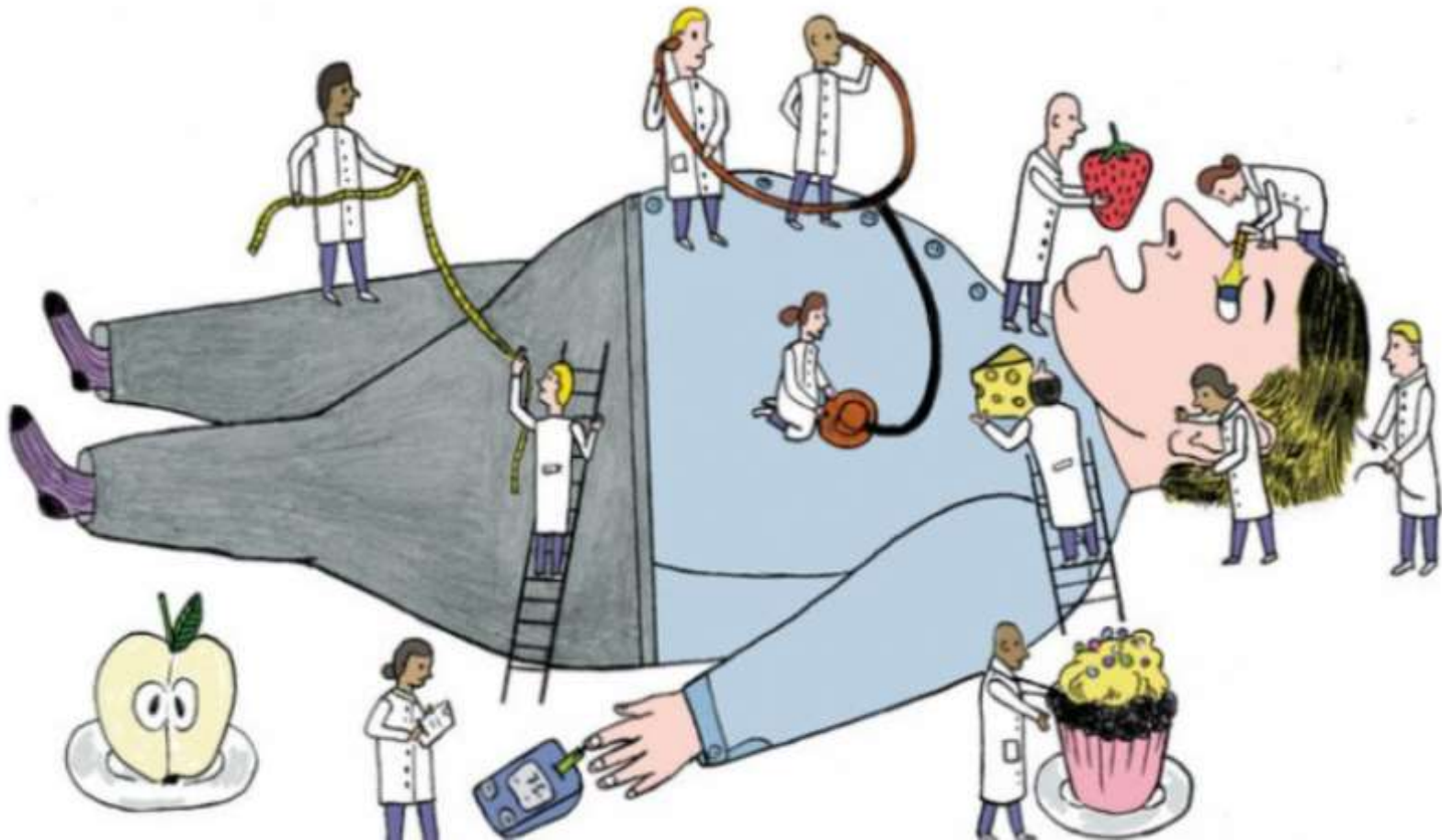
Paleo?

Fast?

Gary Taubs New York Times

Why Nutrition Is So Confusing

February 13 20:09 in [Gary Taubs, Science & Health](#)



Or is it the US Government Official Diet. . .



. . . designed to promote the products of
commodity agriculture?

10 Companies That Control Enormous Number Of Consumer Brands



What is Our Natural Diet?



Please don't feed the animals

Bread and snacks are unhealthy for squirrels, deer and birds.

Handouts can lead to malnutrition and starvation. These animals need their natural diets.

Let them find their own food.

Feeding wildlife prohibited by County Ordinance #8.42.012

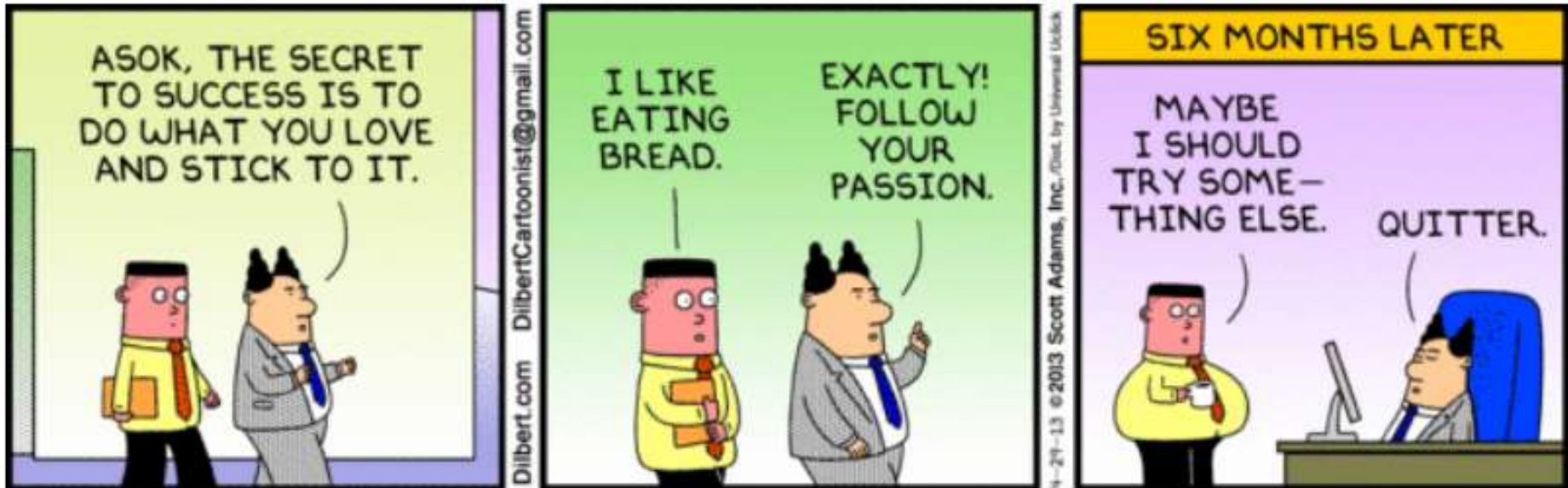
Do we have all the answers?



How Did We Get Here? Lessons From Dilbert

The Problem With Bread

April 29 2013 20:05 in [Wheat](#)



Where will be in 20 years? 100 years?



**Largest man in
the world in 1903**



**American police
officer in 2012**



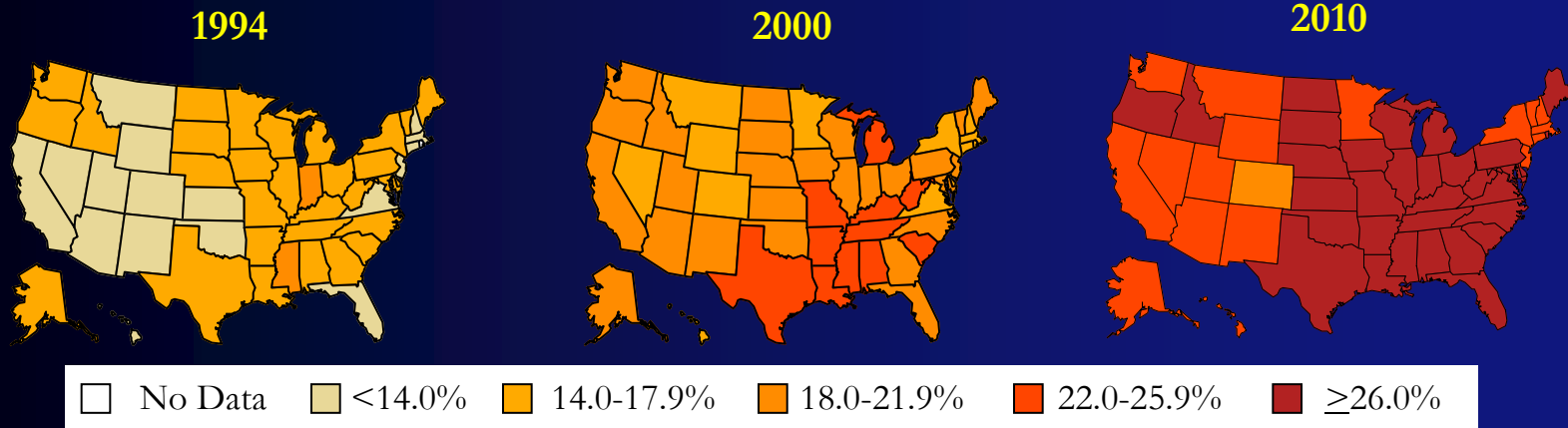
Who's Responsibility is This?

- It seems incredible, but these are the facts: ***As of 2005, at least 9 million young adults -- 27 percent of all Americans ages 17 to 24 -- were too overweight to serve in the military.*** And since then, these high numbers have remained largely unchanged.

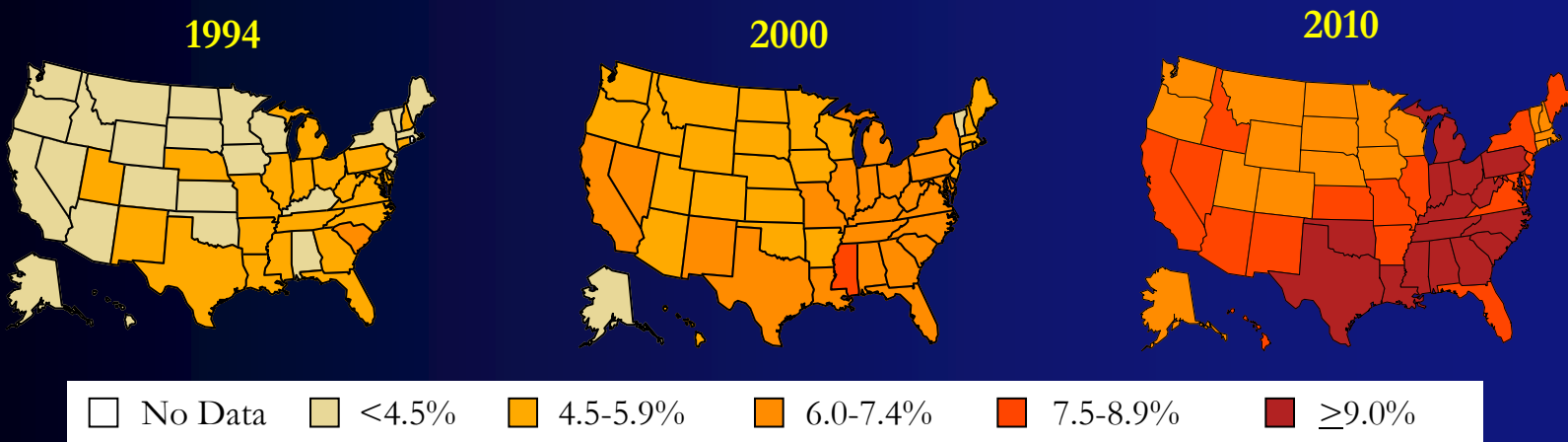
*Gen John M. Shalikashvili and Gen Hugh Shelton,
Retired Chairmen of Joint Chiefs of Staff*

Age-Adjusted Prevalence of Obesity and Diagnosed Diabetes Among U.S. Adults Aged 18 Years or older

Obesity (BMI ≥ 30 kg/m²)

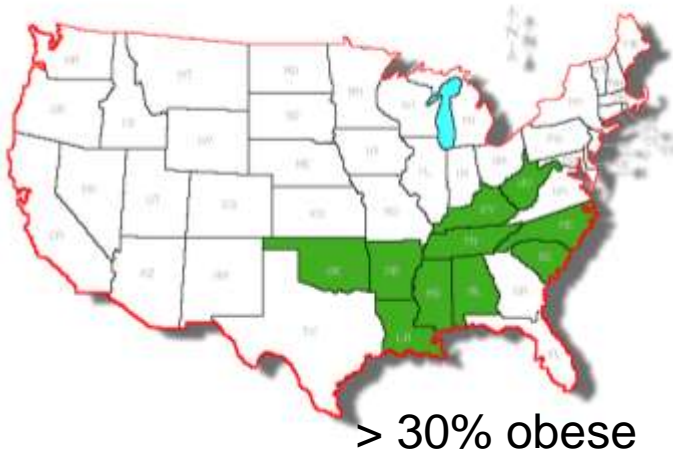


Diabetes

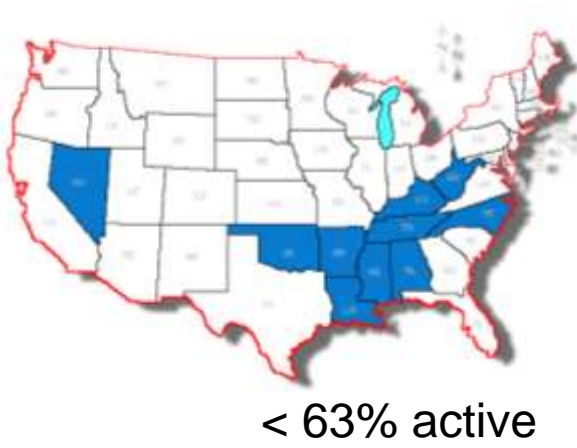


CDC's Division of Diabetes Translation, National Diabetes Surveillance System available at
<http://www.cdc.gov/diabetes/statistics>

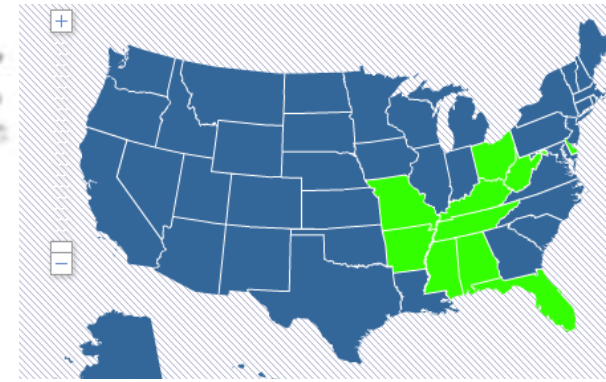
10 Most Obese States



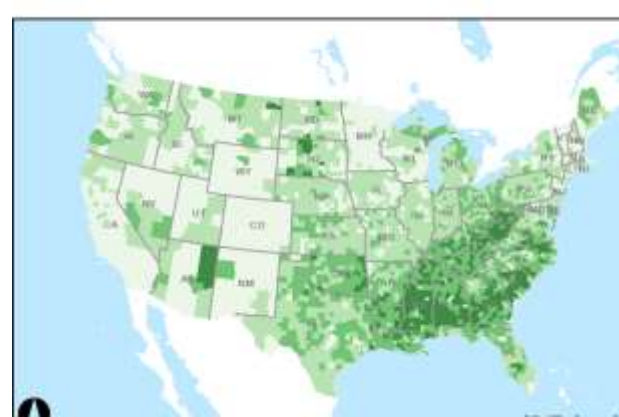
10 Laziest States



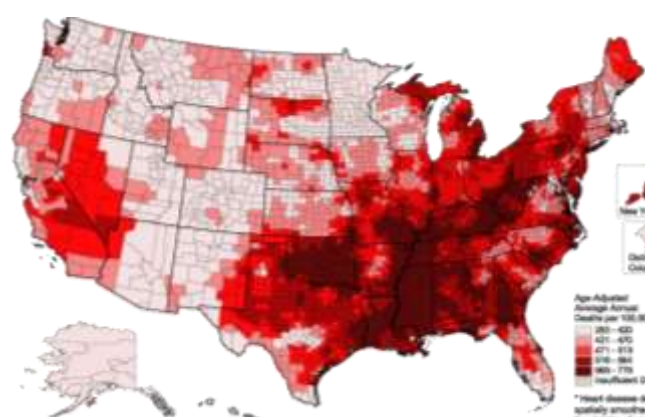
10 Most Unhappy States



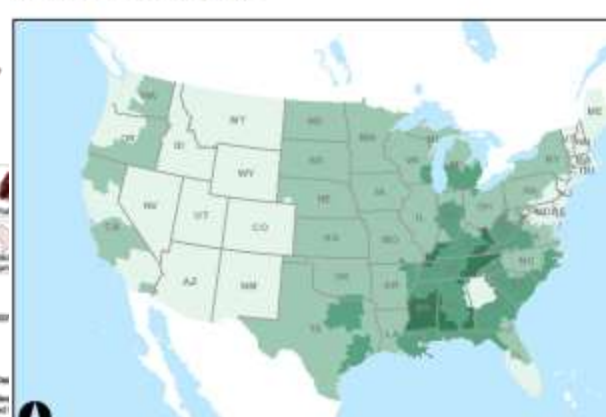
Adult Diabetes Rate



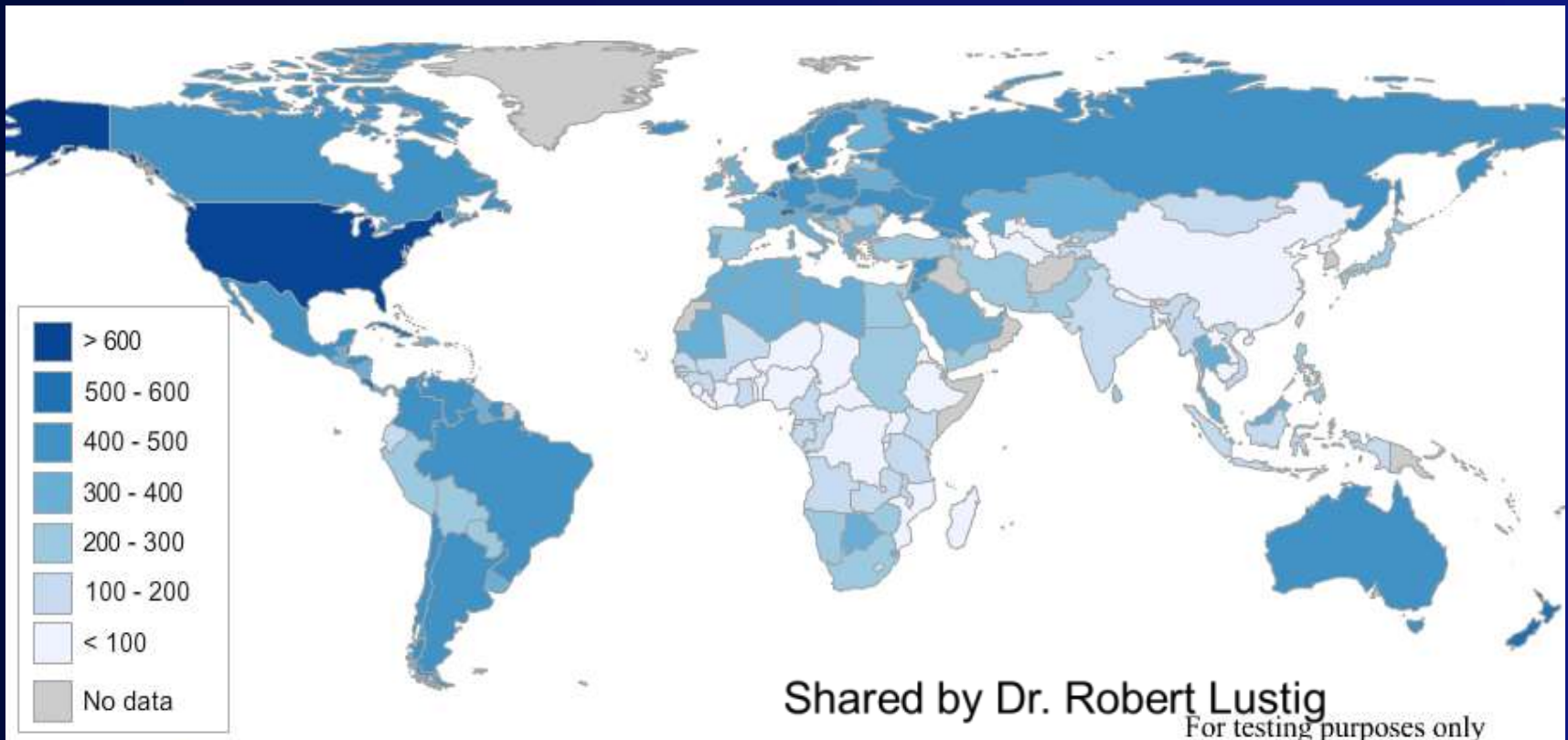
Adult Heart Disease Rate



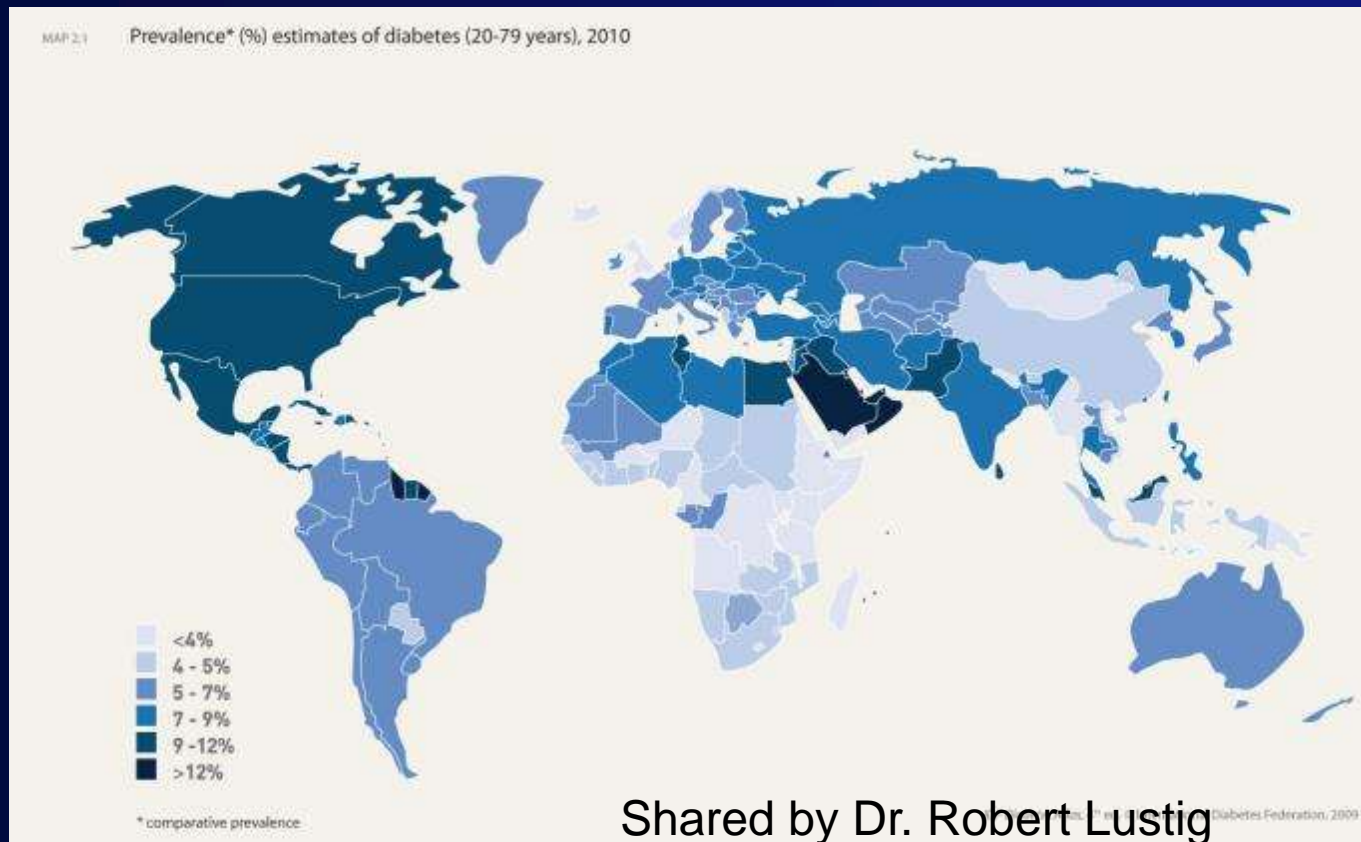
Soda Per Capita



Worldwide per capita sugar supply, 2007



Prevalence of diabetes, 2010



Prevalence of diabetes, 2010

Increase in Obesity

Over a 30 year period

40%

30%

20%

10%

1970

1980

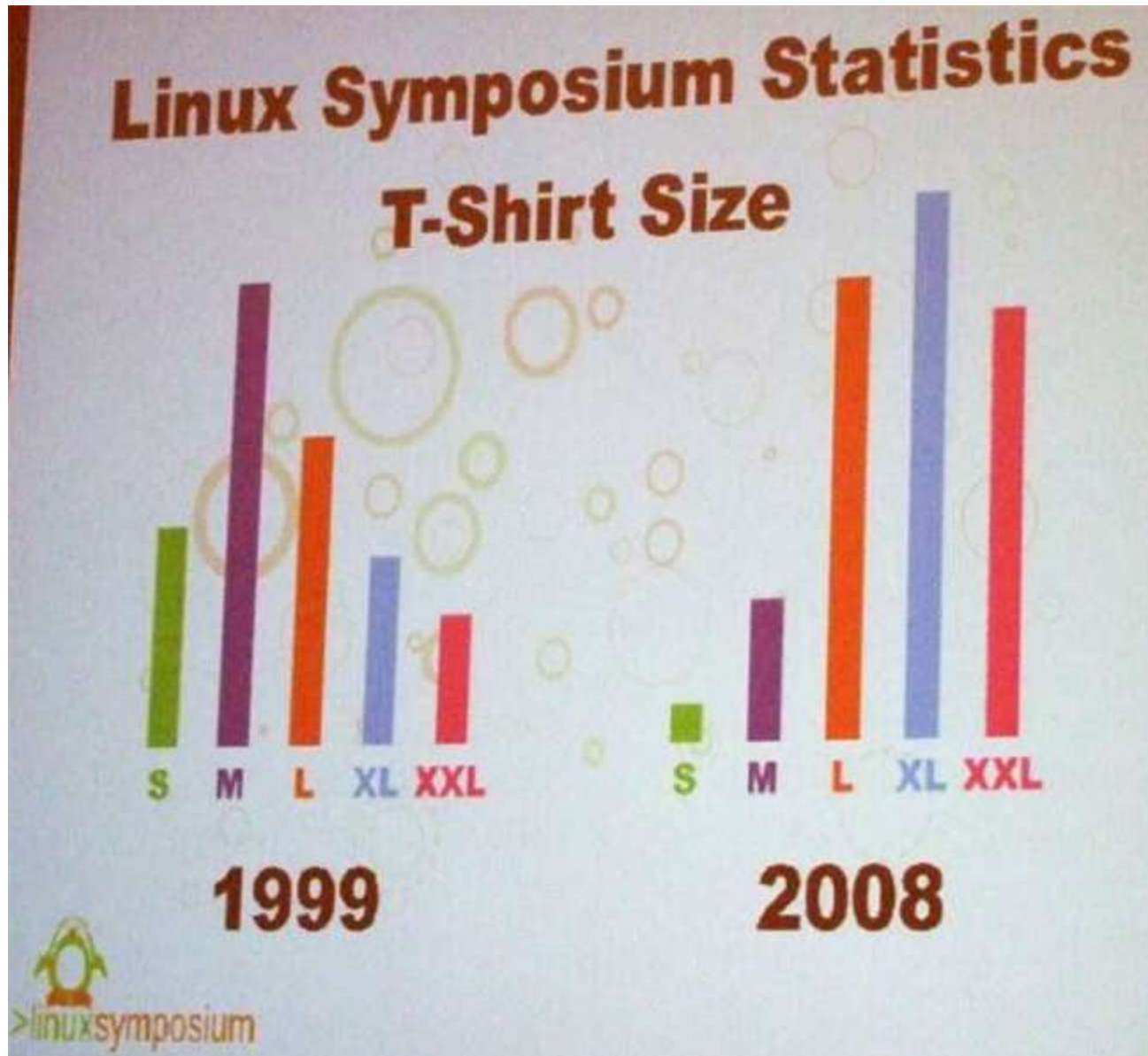
1990

2000

2010



We've only had Freedom's Run 5 Years



Is this child to blame?



Why Won't Johnny Play?



Not a lack of awareness

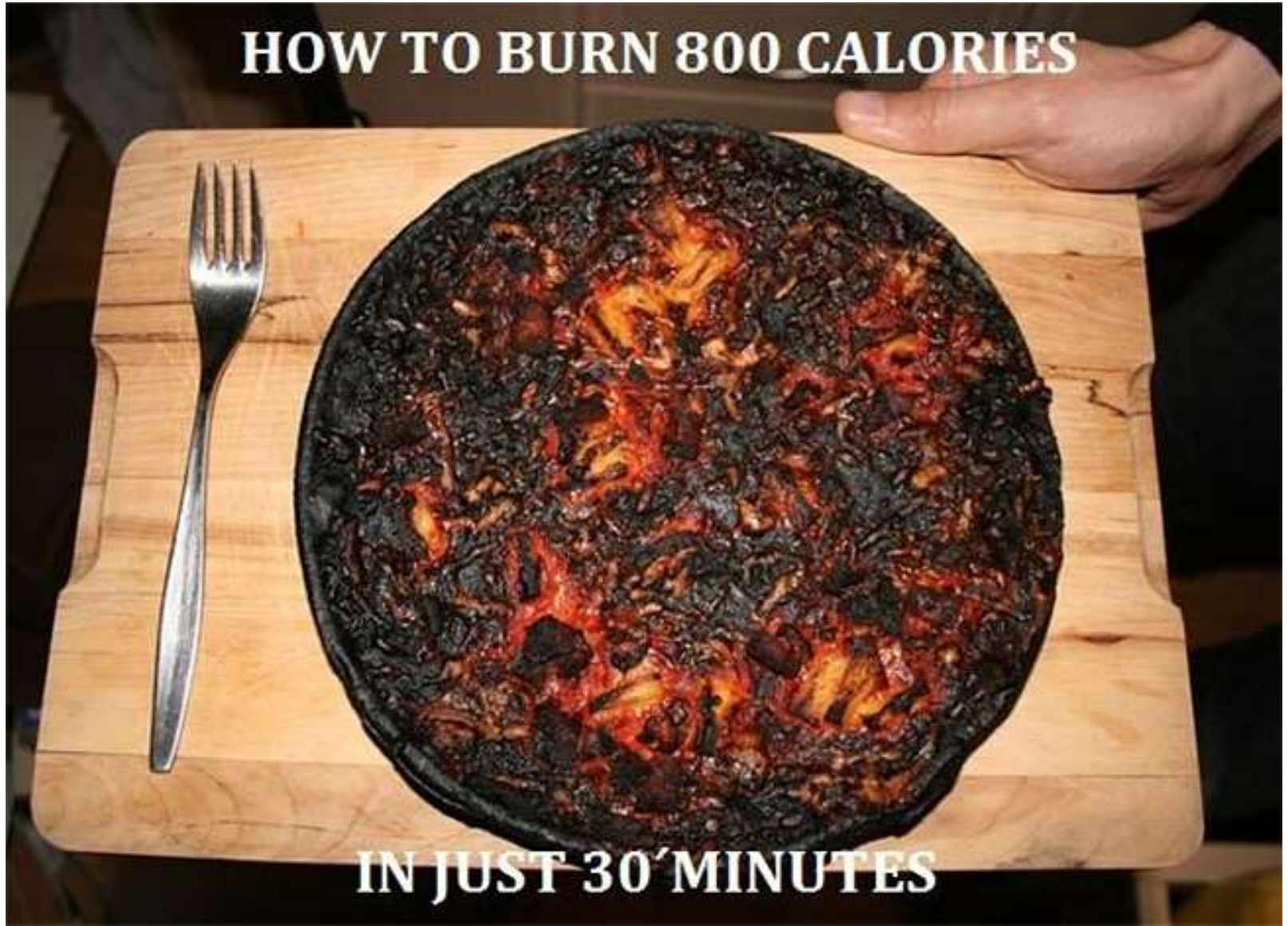


Maybe Just Eat Less?



On to the Gym!

HOW TO BURN 800 CALORIES



IN JUST 30' MINUTES

Or Do some More Cardio in the Gym
Above the Sweet Shop



Counting Calories?



THE SACCHARINE DISEASE

*Conditions caused by the Taking of Refined Carbohydrates,
such as Sugar and White Flour*

T. L. CLEAVE, M.R.C.P. (Lond.)

Member of the Institute of Linguists Surgeon-Captain Royal Navy (Retd.)

Formerly Director of Medical Research, Institute of Naval Medicine

WITH A FOREWORD BY

D. P. BURKITT, M.D., F.R.S., F.R.C.S. (Ed.), D.Sc. (Hon.), F.R.C.S.I. (Hon.)

Medical Research Council External Staff

BRISTOL JOHN WRIGHT & SONS LIMITED 1974

WORKS BY T. L. CLEAVE

A Molecular Conception of Organisms and Neoplasms 3rd ed., (1955), Bristol: Wright.

Fat Consumption and Coronary Disease (1957), Bristol: Wright.

On the Causation of Varicose Veins (1960), Bristol: Wright.

Peptic Ulcer (1962), Bristol: Wright.

WITH G. D. CAMPBELL

Diabetes, Coronary Thrombosis, and the Saccharine Disease (1966). Bristol: Wright.

THE SACCHARINE DISEASE

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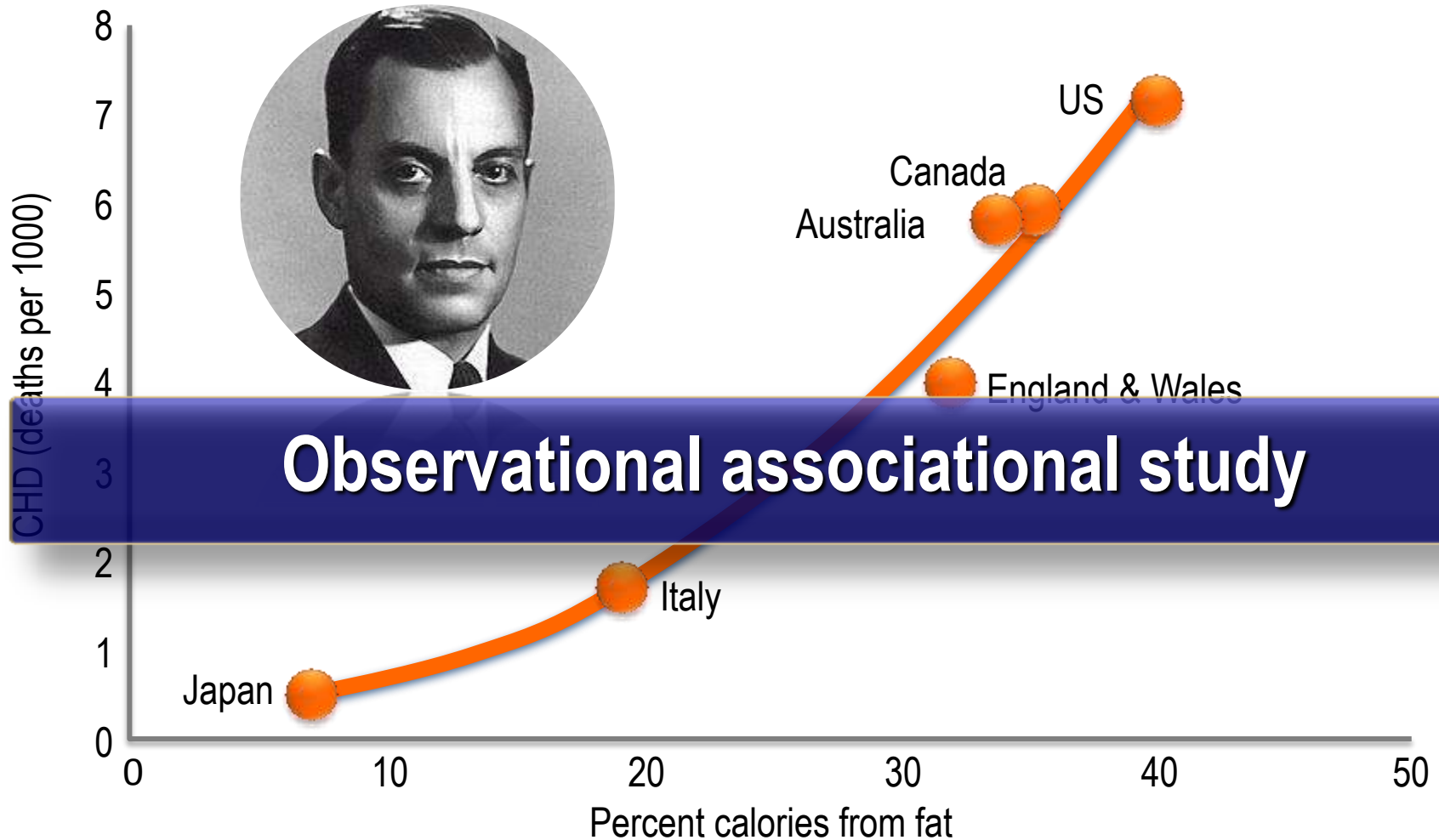
*Member of the Institute of Linguists Surgeon-Captain Royal Navy (Retd.)
Formerly Director of Medical Research, Institute of Naval Medicine*

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The clear evidence is that ill-health (obesity/diabetes/heart disease/certain cancers) appear in pre-industrial communities immediately after the introduction of sugar, white flour and other refined carbohydrates. There is no proven link to any sudden increase in habitual fat intake.

ANCEL KEYS (1904-2004)



Keys A. Atherosclerosis: a problem in newer public health. *J Mt Sinai Hosp N Y* 1953; 20: 118-139.

95th Congress
1st Session

DIETARY GOALS FOR THE UNITED STATES

PREPARED BY THE STAFF OF THE
SELECT COMMITTEE ON NUTRITION
AND HUMAN NEEDS
UNITED STATES SENATE

FEBRUARY 1977

Committee's National Nutritional Policy hearings, June 1974, appearing in National Nutrition Policy Study, 1974, Pt. 6, June 21, 1974, heart disease, p. 2533; high blood pressure, p. 2529; diabetes, p. 2523.

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U.S. DIETARY GOALS

1. Increase carbohydrate consumption to account for 55 to 60 percent of the energy (caloric) intake.
2. Reduce overall fat consumption from approximately 40 to 30 percent energy intake.
3. Reduce saturated fat consumption to account for about 10 percent

2. Reduce overall fat consumption from approximately 40 to 30 percent energy intake.

4. Increase sugar consumption by about 40 percent to account for about 15 percent of total energy intake.
5. Reduce salt consumption by about 50 to 85 percent to approximately 3 grams a day.

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The Goals Suggest the Following Changes in Food Selection and Preparation

1. Increase consumption of fruits and vegetables and whole grains.
2. Decrease consumption of meat and increase consumption of poultry and fish.
3. Decrease consumption of foods high in fat and partially substitute poly-unsaturated fat for saturated fat.
4. Substitute non-fat milk for whole milk.



...book, destined to change the way we think about food."
...POLLAN, AUTHOR OF *IN DEFENSE OF FOOD*
...a brave and bold science journalist who does not
...ventional wisdom." — THE NEW YORK TIMES

GOOD CALORIES,



BAD CALORIES

FATS, CARBS, AND THE CONTROVERSIAL
SCIENCE OF DIET AND HEALTH

GARY TAUBES



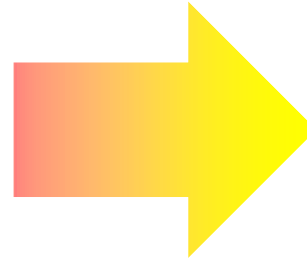
The Cholesterol Conspiracy

by
Russell L. Smith, Ph.D.
in consultation with
Edward R. Pinckney, M.D.

*"Saturated fat and cholesterol in the diet are not the
cause of coronary heart disease. That myth is the
greatest scientific deception of this century, perhaps of
any century."*

George V. Mann, M.D.

THE DIET HEART MODEL OF CORONARY ATHEROSCLEROSIS



**Elevated total
cholesterol
concentrations**



Clogged artery



Myocardial ischaemia

Coronary thrombosis

Acute myocardial infarction

Ventricular arrhythmias

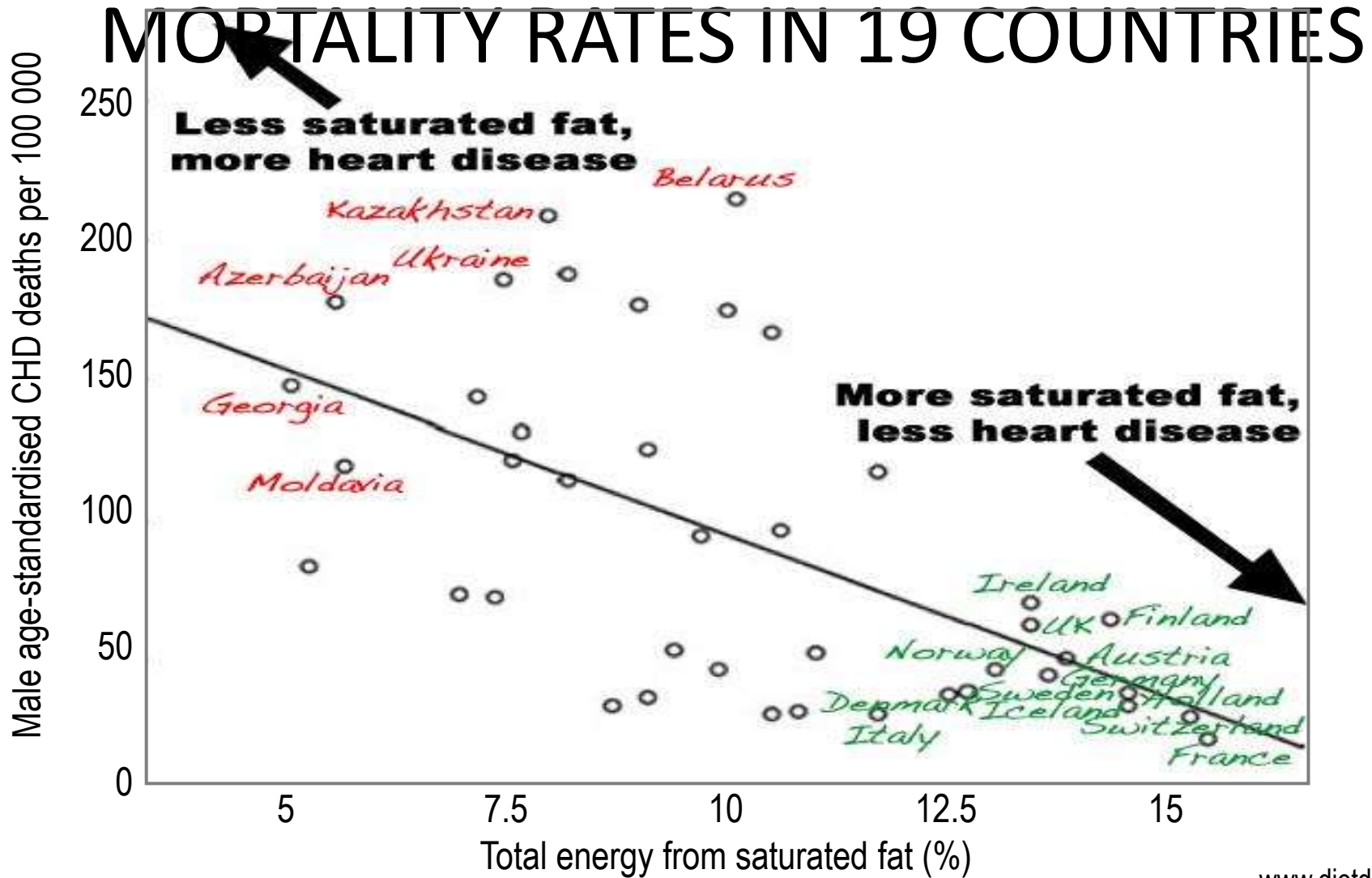
Sudden death.

UNITED STATES SENATE SELECT COMMITTEE ON NUTRITION AND HUMAN NEEDS (1968-1977)

- Reduce consumption of fat
- Switch from saturated fat to vegetable fats
- Reduce cholesterol to 1 egg per day
- Eat more carbohydrate, especially grains

The McGovern Report was written by a junior staffer, Nick Mottern, a vegan, who had no training in the nutritional sciences.

INVERSE RELATIONSHIP BETWEEN SATURATED FAT INTAKE AND CHD MORTALITY RATES IN 19 COUNTRIES



TOP STORIES IN LIFE & CULTURE

1 of 12



A Hidden Data Treasure Trove in Routine...



2 of 12

An Olympian's Pursuit: 5,000 Meters in ...



3 of 12

The Specialist Will See You Now—on a Vi...



Wea Babi

THE SATURDAY ESSAY

The Questionable Link Between Saturated Fat and Heart Disease

Are butter, cheese and steak really bad for you? The dubious science behind the anti-fat crusade

Email Print 724 Comments



By NINA TEICHOLZ

Updated May 6, 2014 10:25 a.m. ET



market
pantry

Granulated Sugar

Naturally Fat Free



SERVING SUGGESTION

NET WT 4 LB (1.81kg)



9

APPROX.
CUPS

No Added Sugar



Snackwell Nutrition Label- No Fat

Amount Per Serving

Calories 50 Calories from Fat 0

% Daily Value*

Total Fat 0g **0%**

Saturated Fat 0g **0%**

Trans Fat 0g

Polyunsaturated Fat 0g

T.C. Hale

Math Test

1. Bob has 36 candy bars. He eats 29.
What does he have now?

Diabetes.

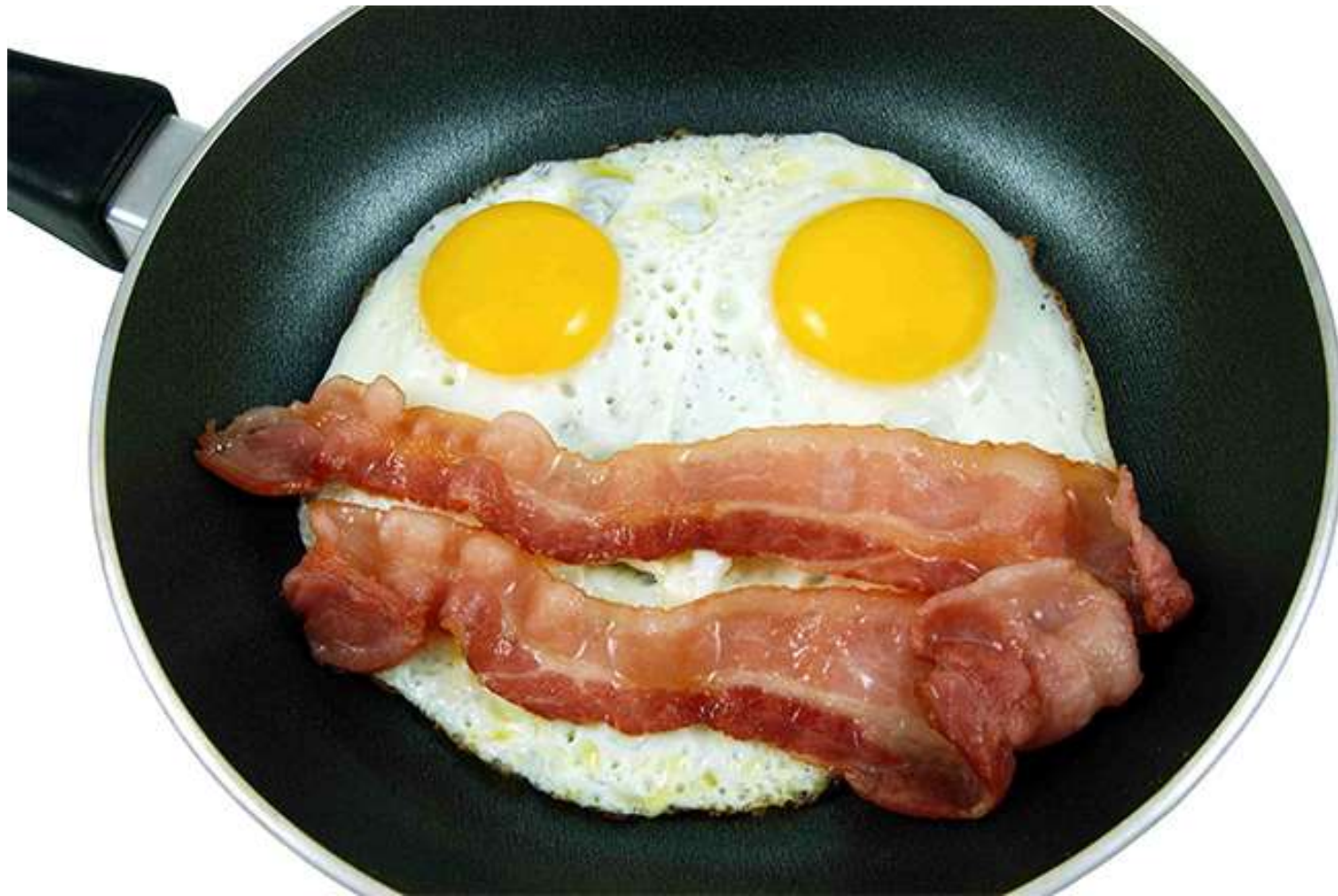
Bob has diabetes.

2. Two trains left Kalamazoo, one heading
the other heading south. The
the second

I Did Not Make This Up



Maybe this is what we should be
eating more of



Maybe They Are Right





ONE DOES NOT SIMPLY

EAT ONE SLICE OF BACON

memegenerator.com

Is this better than Butter?



True or False?

Low fat milk is a
healthy choice
for you
and your
family.



Obesity is NOT the Disease



THE METABOLIC SYNDROME



HEART DISEASE



LIPID PROBLEMS



HYPERTENSION



TYPE 2 DIABETES

More than Just the Big 4



THE METABOLIC SYNDROME



HEART DISEASE



LIPID PROBLEMS



HYPERTENSION



TYPE 2 DIABETES



DEMENTIA



CANCER



POLYSYSTIC
OVARIAN
SYNDROME



NON-ALCOHOLIC
FATTY LIVER
DISEASE

Obese can be Metabolically Well

Many Non Obese are Sick

60% Adult Population now Sick

**HEALTHY
METABOLISM**



20%



60%



**METABOLIC
DISEASES**



80%



40%

Well We Have Medicines for This Stuff

COST OF METABOLIC SYNDROME



TYPE 2 DIABETES



HEART DISEASE



LIPID PROBLEMS



HYPERTENSION



**NON-ALCOHOLIC
FATTY LIVER
DISEASE**



CANCER



**POLYCYSTIC
OVARIAN
SYNDROME**



DEMENTIA



**GLOBAL HEALTH
CARE COSTS**

COST OF METABOLIC SYNDROME



**GLOBAL HEALTH
CARE COSTS**

Obesity bigger problem in developing world than infectious disease



TYPE 2 DIABETES

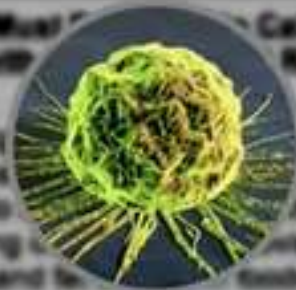


HEART DISEASE



HYPERTENSION

Proclaiming the spread of non-communicable diseases a socio-economic and development challenge, **non-communicable diseases** may pledged to work with the United Nations to adopt before the end of 2012 targets to combat heart disease, cancers, diabetes and lung cancer, **challenge of "epidemic proportions,"** and slashed the high salt, sugar and fat content in foods that caused them.



CANCER

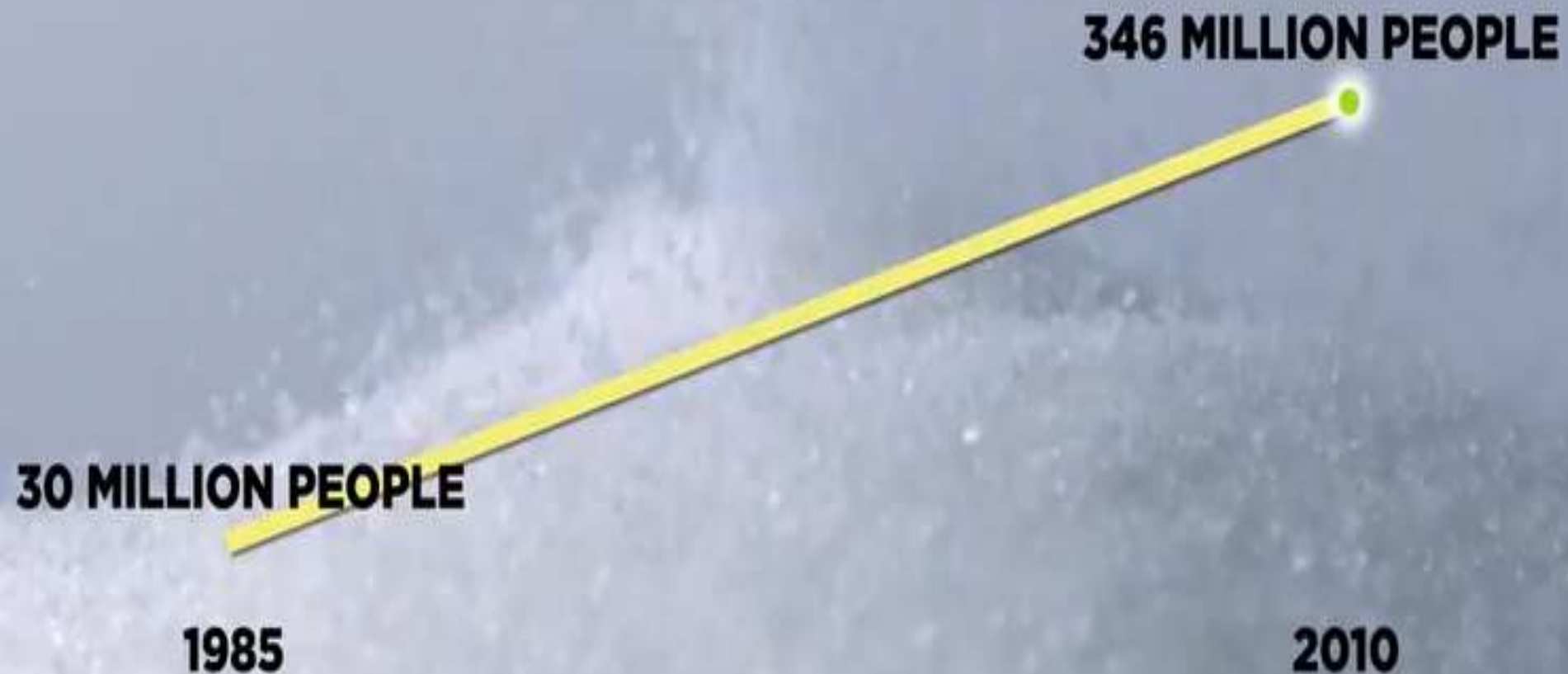


DEMENTIA

WORLD SUGAR CONSUMPTION 1985-2010



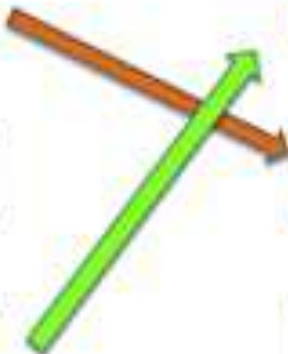
GLOBAL DIABETES PREVALANCE 1985-2010



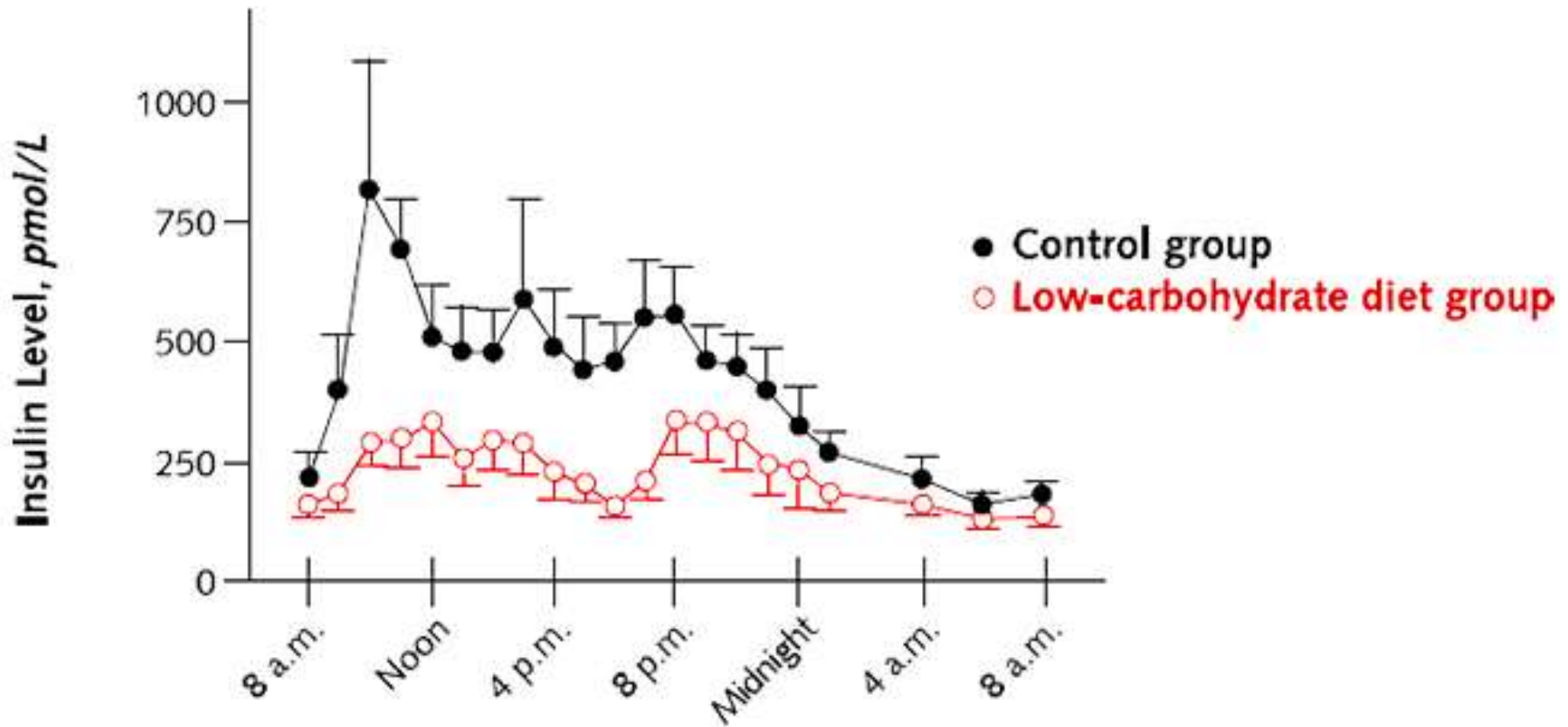
Old Model



New Model



Less Carbs...Less Insulin



Lots of Carbs....Lots of Insulin



30 grams of Carbs

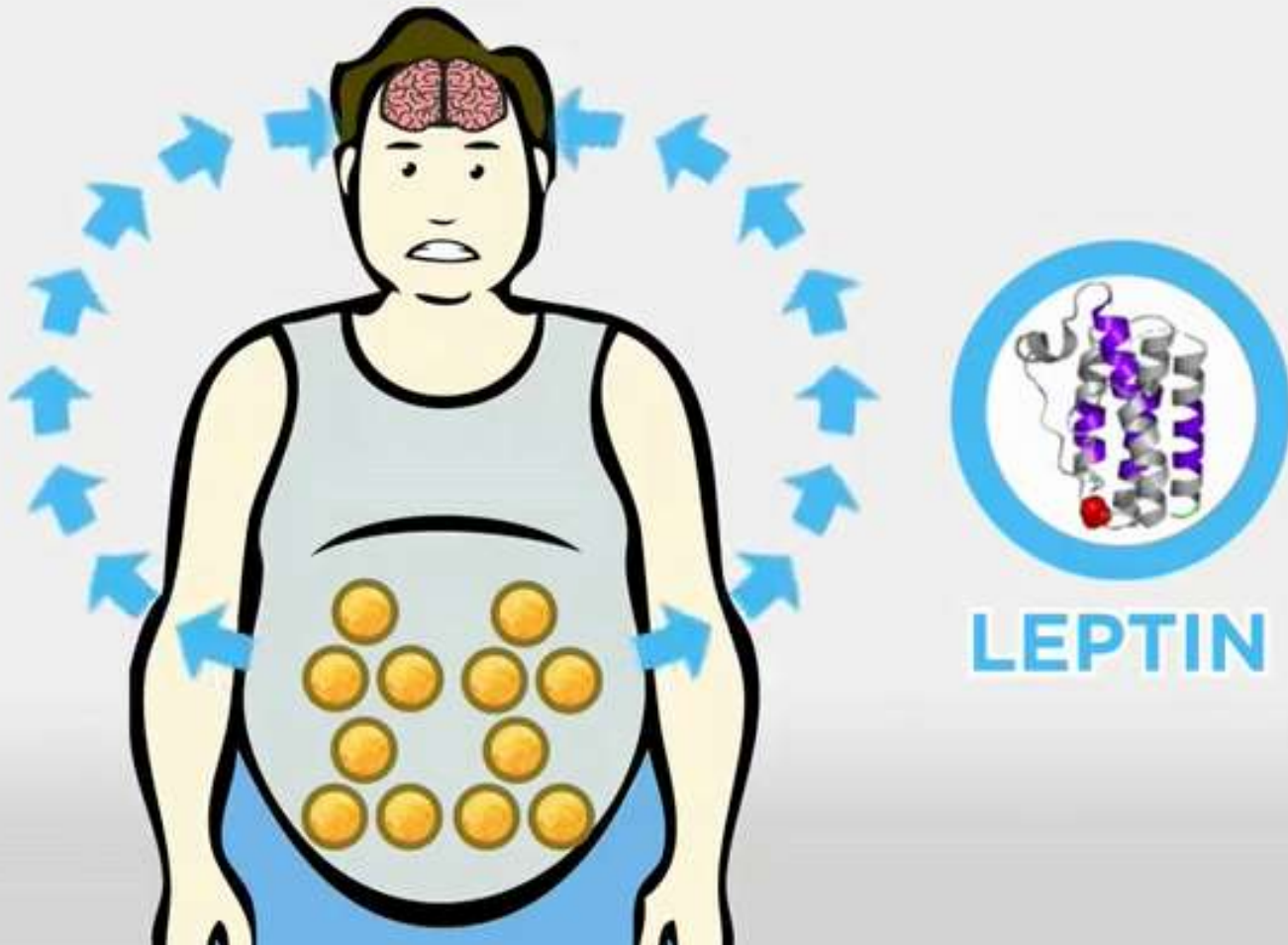


Leptin Made Simple

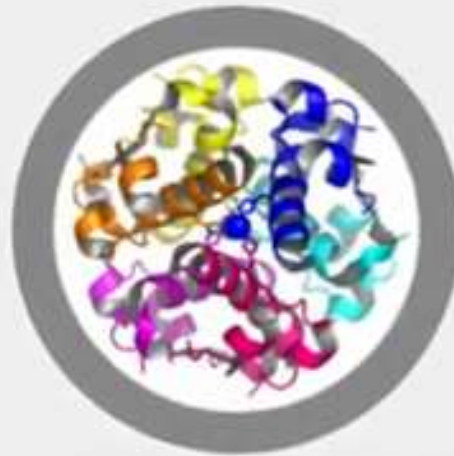


Fat Produces Leptin

Leptin sends signals to cease eating
and storing and start moving

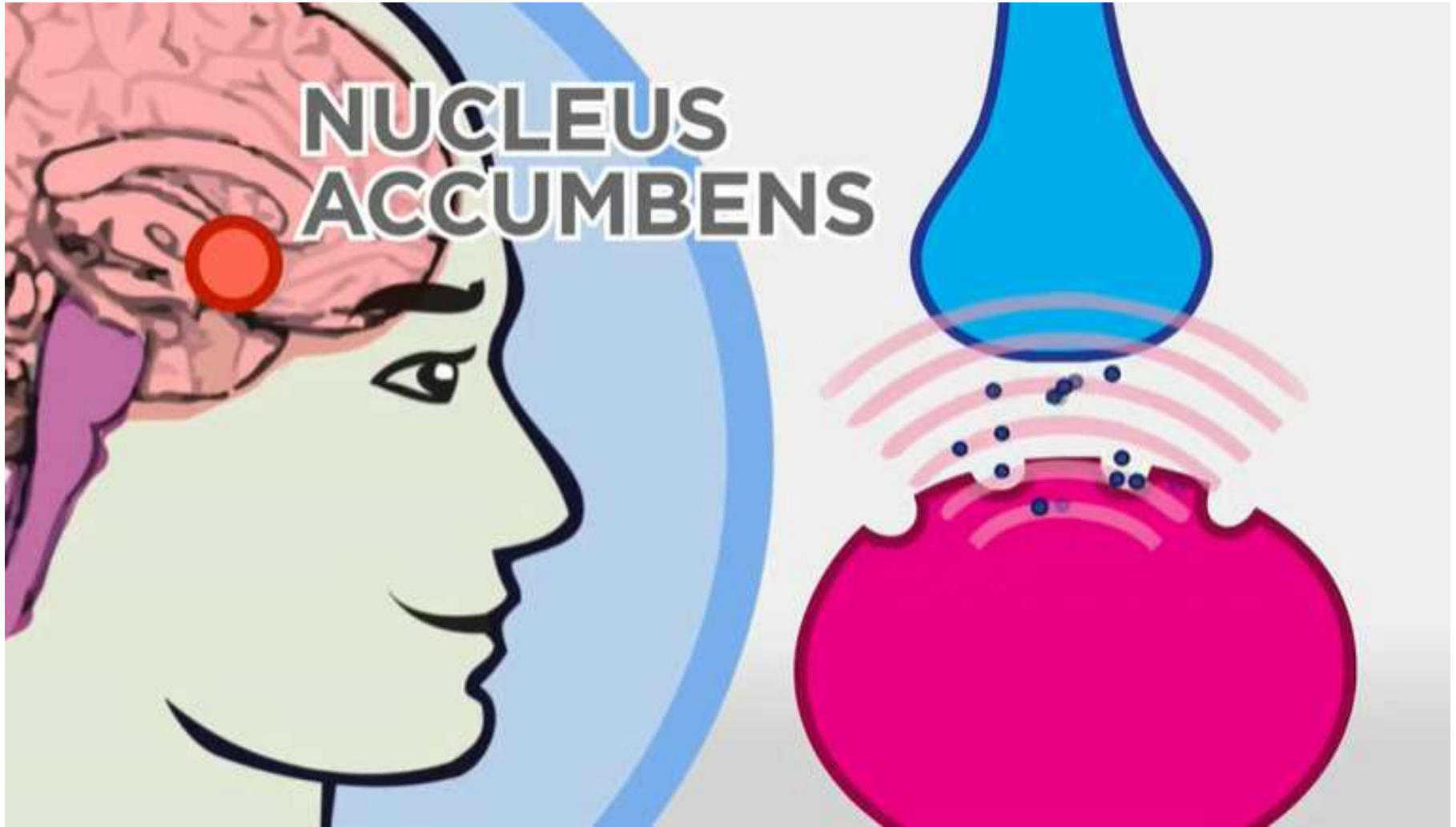


Why is Leptin not Doing its Job- Insulin

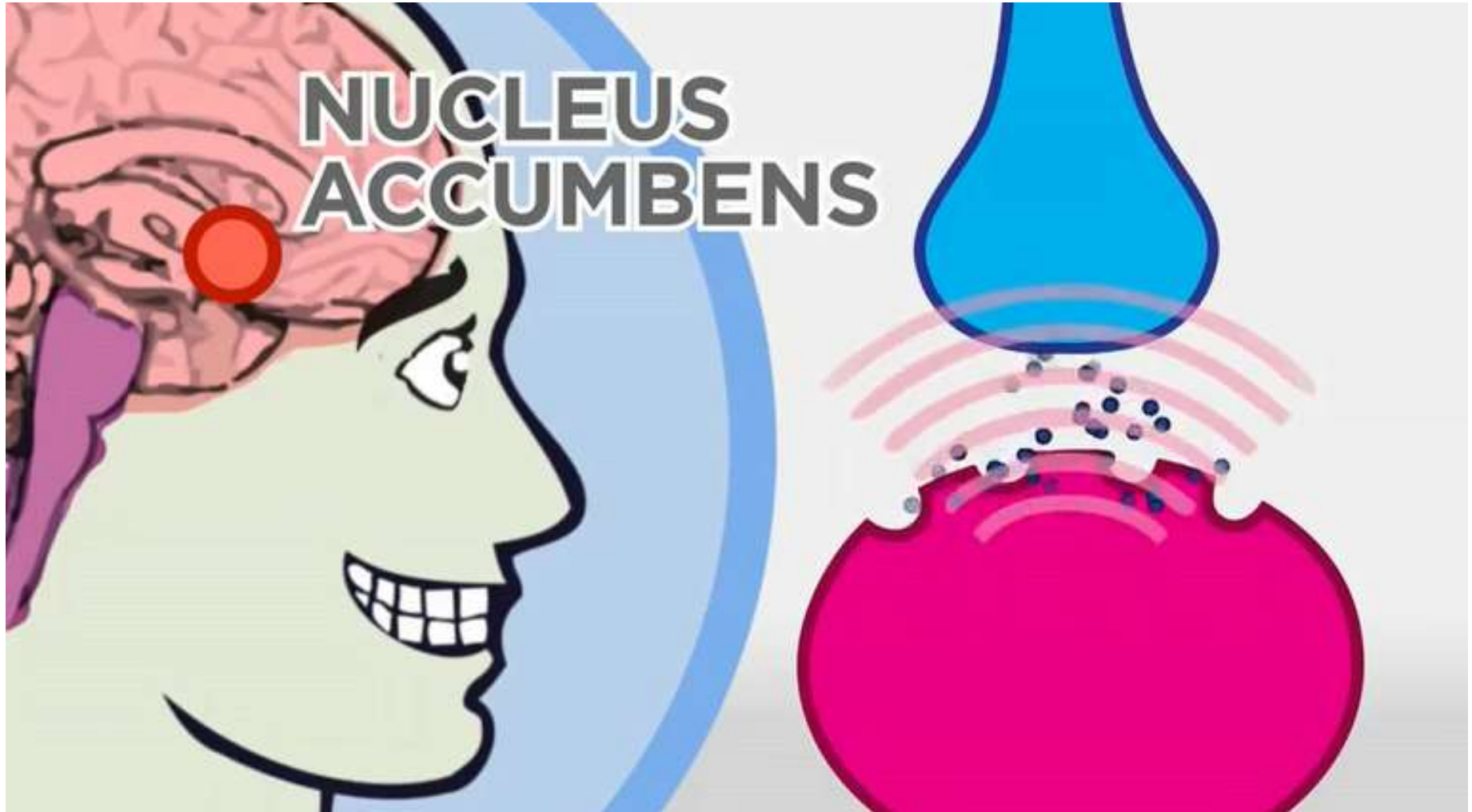


INSULIN

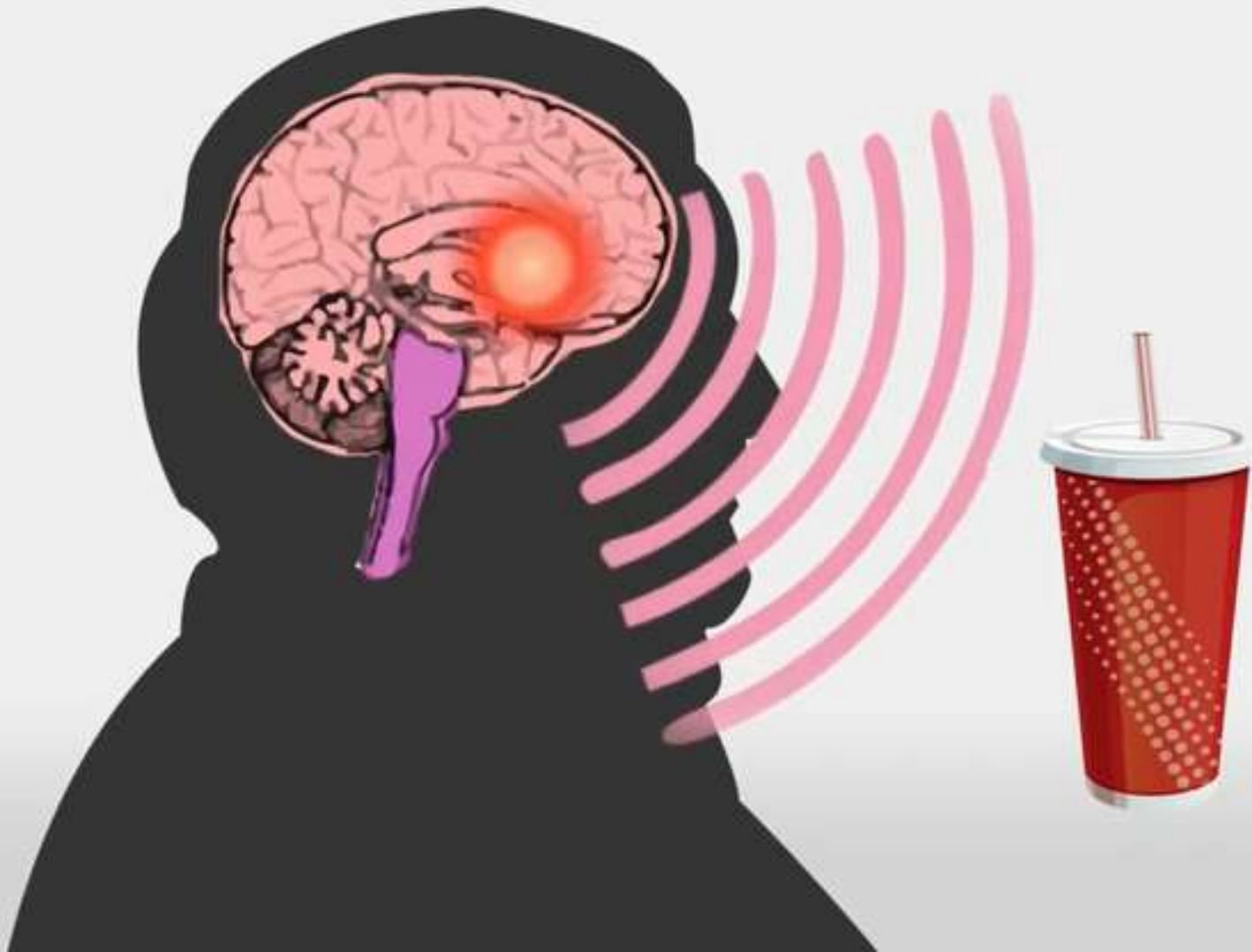
A Little about Dopamine and Happiness



More Dopamine...More Happy



Dopamine Centers Light Up



Is this stuff safe? Does it trigger sweet cravings later?



Recipe for Disaster



$$\left(\frac{\text{Salt} + \text{Fat}^2}{\text{Satisfying Crunch}} \right) \times \text{Pleasing Mouth Feel} = \text{A Food Designed to Addict}$$

Mmm...Donuts!

