

THE MANY ASPECTS OF SUGAR THE CULPRIT BEHIND METABOLIC DYSFUNCTION

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TROUBLING TREND

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Viewpoint April 04, 2016
Lifespan Weighed Down by Diet FREE ONLINE FIRST
David S. Ludwig, MD, PhD ¹
[+] Author Affiliations
JAMA. Published online April 04, 2016. doi:10.1001/jama.2016.3829 Text Size: A A A
Article References
and advances in medical care. In 1850, life expectancy among whites was an estimated 38 years for men and 40 years for women. These numbers nearly doubled by 1980, to 71 years for men and 78 years for women. With the start of the obesity epidemic in the late 1970s, this trend began to slow, leading some to predict that life expectancy would decline in the United States by the mid-21st century. ¹ Preliminary data from the Centers for Disease Control and Prevention (CDC) provide new evidence in support of this prediction. ² Age-adjusted death rates for the first 9 months of 2015 increased significantly compared with the same period in 2014, most notably involving causes of death related to obesity. In relative terms, mortality rates increased in 1 year by 1% for heart disease, 1% for diabetes, 3% for chronic liver disease, 4% for stroke, and 19% for Alzheimer disease. Although these data are preliminary and could change, the new rates potentially signal a looming social and economic catastrophe that demands a comprehensive national strategy to more effectively address obesity and other chronic diet-related disease.
Obesity and poor-quality diet predispose to all of the major chronic diseases, but these risks have been
titigated over the past few decades by an increasingly powerful and expensive array of treatments. To delay
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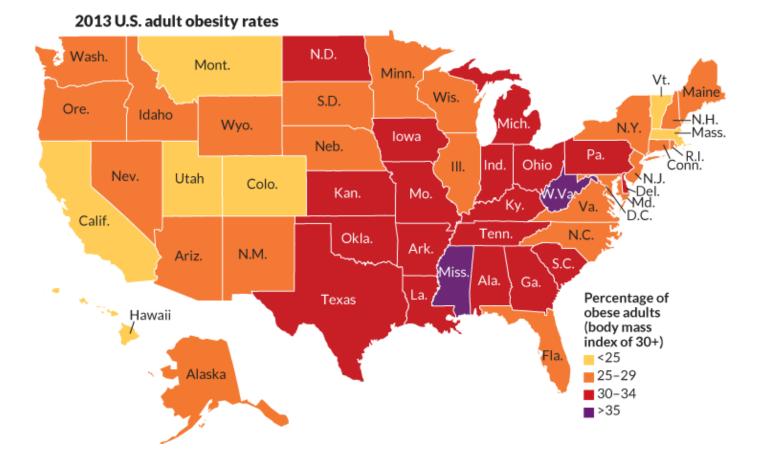
Age-adjusted death rates for the first 9 months of 2015 increased significantly ... most notably involving causes of death related to obesity...

mortality rates increased in 1 year

- > 1% for heart disease,
- > 1% for diabetes,
- 3% for chronic liver disease
- > 4% for stroke, and
- > 19% for Alzheimer

disease.

US OBESITY MAP 2013



CHILDREN AND TYPE II DIABETES

▶ 1980:

 O children were diagnosed

NEWS RELEASES

Thursday, April 13, 2017

Rates of new diagnosed cases of type 1 and type 2 diabetes on the rise among children, teens

Fastest rise seen among racial/ethnic minority groups.

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Rates of new diagnosed cases of type 1 and type 2 diabetes are increasing among youth in the United States, according to a report, Incidence Trends of Type 1 and Type 2 Diabetes among Youths, 2002-2012, published today in the New England Journal of Medicine.

In the United States, 29.1 million people are living with diagnosed or undiagnosed diabetes, and about 208,000 people younger than 20 years are living with diagnosed diabetes.

This study is the first ever to estimate trends in new diagnosed cases of type 1 and type 2 diabetes in youth (those under the age of 20), from the five



➢ 2012:

 210,000 children had diagnoses

TYPE II DIABETES — FROM THE CDC

Number and Percentage of U.S. Population with Diagnosed Diabetes, 1958-2015 7 Percentage with Diabetes 20 --- Number with Diabetes Percentage with Diabetes (Millions 5 15 Diabete 4 10 3 with 2 Number 5 0 -1958 61 64 67 70 73 76 79 82 85 88 91 94 97 00 03 06 09 12 15 Year

CDC's Division of Diabetes Translation. United States Diabetes Surveillance System available at http://www.cdc.gov/diabetes/data

HOW MUCH ARE WE EATING?

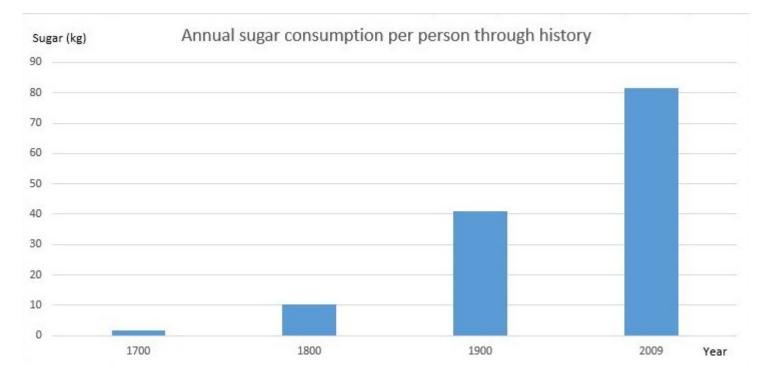


Image courtesy of http://www.divineeatingout.com/food-1/sugar-consumption-now-vs-100-years-ago

SUGAR AND YOUR HEALTH

- > Type II diabetes, and CVD
- > Contributes to obesity
- > Rapid rise of adrenaline in children
- > Rise in triglycerides
- > Migraines and headaches
- > Depression
- > Alzheimer's
- > Weakens eyesight
- > Interferes with calcium and magnesium absorption
- > Contributes to osteoporosis
- > Suppresses immune system (up to 2 hrs)
- > Ages skin
- > Increases fluid retention

Adapted from 146 Reasons Why Sugar Is Ruining Your Health by Nancy Appleton, Ph.D



WHO AND SUGAR



WHO calls on countries to reduce sugars intake among adults and children

Press release

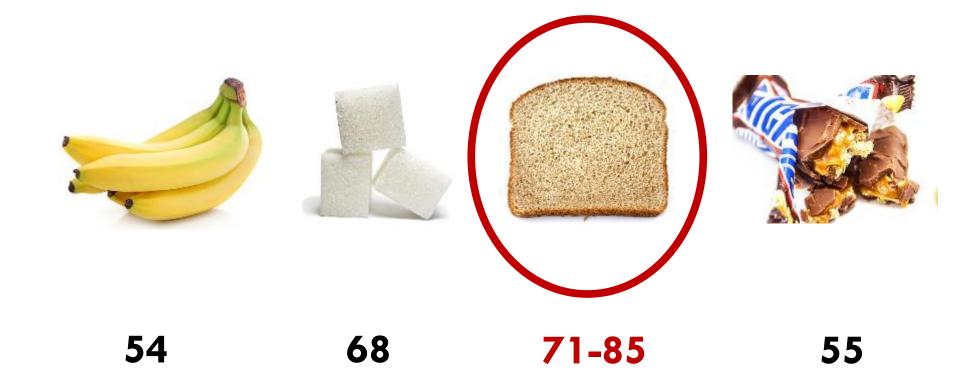
4 MARCH 2015 ¦ GENEVA - A new WHO guideline recommends adults and childrer reduce their daily intake of free sugars to less than 10% of their total energy intake. A further reduction to below 5% or roughly 25 grams (6 teaspoons) per day would provide additional health benefits.

- Acknowledges SUGAR as the main culprit behind global health problems
- Sugar should be reduced to below 5% of daily calories (25g / 6 tsp)

"HEALTHY" FOODS AND SUGAR



WHAT HAS THE HIGHEST GLYCEMIC INDEX?



LOWERING THE INSULIN RESPONSE

- > Fiber
- ► Fat
- > Protein



Always have a "buddy" when eating high carb or sugary food – even fruit!

RECENT HEADLINES

Epidemiological data have demonstrated an association between artificial sweetener use and weight gain.

- MESA study, 2010

THE WALL STREET JOURNAL.

ENVIRONMENT & SCIENCE

Research Shows Zero-Calorie Sweeteners Can Raise Blood Sugar They Can Alter the Population of Gut Bacteria and Trigger Unwanted Changes

By GAUTAM NAIK Vated Sept. 17, 2014 7:21 p.m. ET

eating and healt

Diet Soda May Alter Our Gut Microbes And Raise The Risk Of Diabetes

by ALLISON AUBREY

Contember 17, 2014 A-17 Did ET

Artificial Sweeteners May Disrupt Body's Blood Sugar Controls

By KENNETH CHANG SEPTEMBER 17, 2014 4:17 PM S70 Comments

Study Shows Diets High In Sodium And Artificially Sweetened Soda Linked To Kidney Function Decline

CONQUERING CRAVINGS

- > Eliminate caffeine
- > Hydrate
- > Avoid artificial sweeteners
- > Keep junk out of your home
- > Eat fruit and sweet veggies
- > Exercise
- > Read Labels
- > Eat good fat (stabilize blood sugar)
- Look at consumption of animal protein (too much / too little)



WHAT IS METABOLIC SYNDROME?



- > HBP / HTN
 - >130 systolic, >85 diastolic
- Low HDL / high LDL
 HDL <40 men, <50 women
- > High Triglycerides > 150
- > High fasting BS >100
- > BMI >30
- > Abdominal obesity
 - Waste >40 men, >35 women

IF YOU WANT TO KNOW MORE...

