#### Breakfast: 42,927 B.C.

-what was it, and why does it matter?-

## David L. Katz, MD, MPH, FACPM, FACP Director, Prevention Research Center Yale University

President, American College of Lifestyle Medicine
Editor-in-Chief, Childhood Obesity
Author, Disease Proof

#### **Whole Grains Council**



Boston, MA

11-10-14

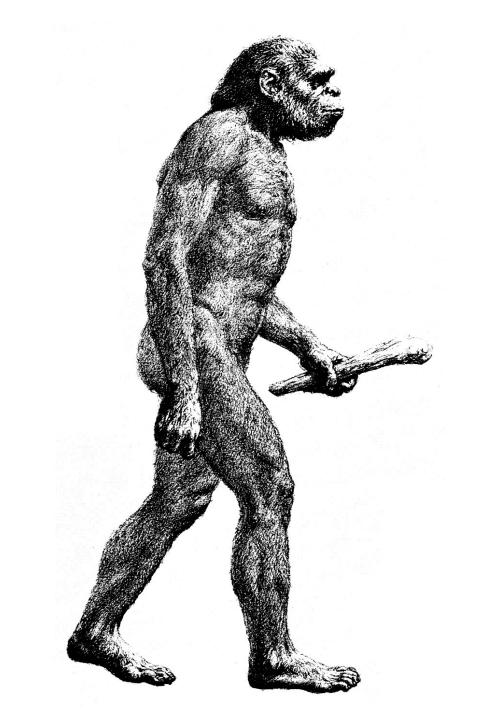


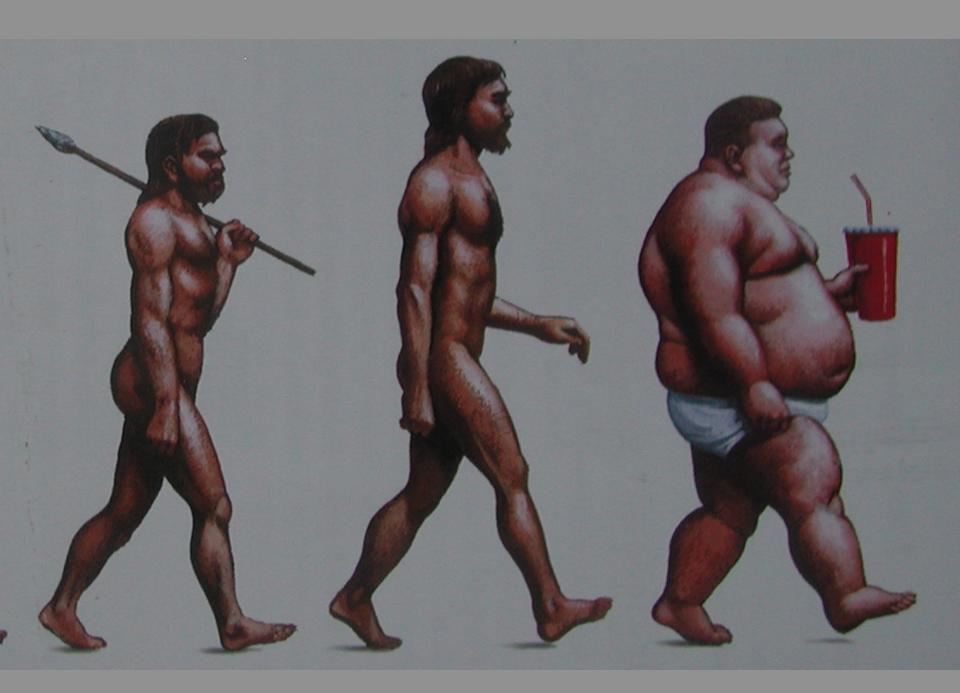
#### On the menu-

- Reasons to Care
- Devilry in the Details
- Recipe for Consensus
- Stone Age Living: Rocking the Rubric
- Perfect as The Enemy of Good
- Vintage Grains
- Diet & Health: The View from Altitude
- Chewing on Implications

#### Reasons to Care







#### Ancient lessons for us all -

- total fat
- total protein
- essential fatty acids
- cholesterol
- sodium
- potassium

- calcium
- folate
- vitamin E
- zinc
- vitamin C
- fiber

#### Back to the future?

O'Keefe JH Jr, Cordain L. Cardiovascular disease resulting from a diet and lifestyle at odds with our Paleolithic genome: how to become a 21st-century hunter-gatherer. *Mayo Clin Proc.* 2004;79:101-8

#### Devilry in the Details

#### Stone Age, in the eyes of the beholder-

Cordain L, Eaton SB, Miller JB, Mann N, Hill K. The paradoxical nature of hunter-gatherer diets: meat-based, yet non-atherogenic. Eur J Clin Nutr. 2002 Mar;56 Suppl 1:S42-52

Konner M, Eaton SB. Paleolithic nutrition: twenty-five years later. *Nutr Clin Pract*. 2010 Dec;25(6): 594-602

#### Recipe for Consensus-

- high intakes of
  - antioxidants
  - fiber
  - vitamins and phytochemicals
- low salt intake
- more exercise
- less stress
- no smoking
  - Cordain L, Eaton SB, Miller JB, Mann N, Hill K. The paradoxical nature of hunter-gatherer diets: meat-based, yet non-atherogenic. Eur J Clin Nutr. 2002 Mar;56 Suppl 1:S42-52

#### Recipe for Consensus-

- "...anthropological evidence continues to indicate that ancestral human diets prevalent during our evolution were characterized by much lower levels of refined carbohydrates and sodium, much higher levels of fiber and protein, and comparable levels of fat (primarily unsaturated fat) and cholesterol. Physical activity levels were also much higher than current levels, resulting in higher energy throughput."
  - □ Konner M, Eaton SB. Paleolithic nutrition: twenty-five years later. *Nutr Clin Pract.* 2010 Dec;25(6):594-602

### Stone Age Living: Rocking the Rubric

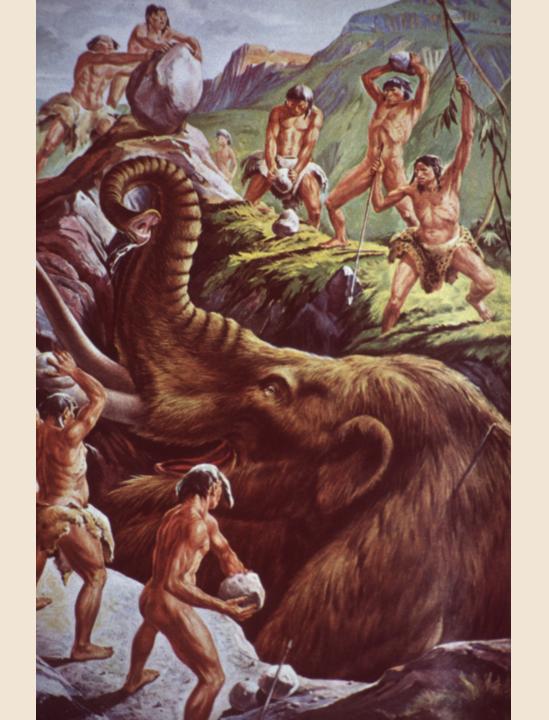
Katz DL. The Paleo Diet: Can We Really Eat Like Our Ancestors Did? Huffington Post. 7/6/11:

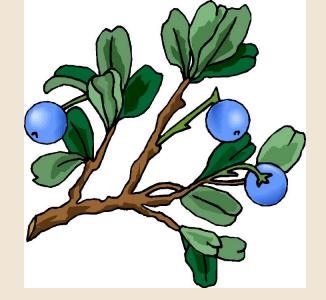
http://www.huffingtonpost.com/david-katz-md/paleo-diet\_b\_889349.html





#### Perfect as The Enemy of Good



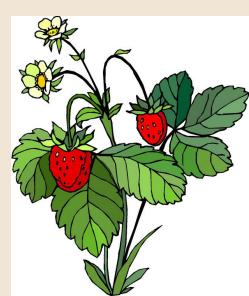














### Vintage Grains









#### When was "then"?

■ 15,000 years ago?

■ 6 million years ago?



#### Diet and Health: The View from Altitude

## Beyond the soundbites; there is Lifestyle... and everything else

McGinnis JM, Foege WH. Actual causes of death in the United States. JAMA. 1993;270:2207-12

Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291:1238-45

#### The People in Potsdam-

Ford ES, Bergmann MM, Kröger J, Schienkiewitz A, Weikert C, Boeing H. Healthy living is the best revenge: findings from the European Prospective Investigation Into Cancer and Nutrition-Potsdam study. Arch Intern Med. 2009 Aug 10;169(15):1355-62

#### • Or the UK:

□ Kvaavik E, Batty GD, Ursin G, Huxley R, Gale CR. Influence of individual and combined health behaviors on total and cause-specific mortality in men and women: the United Kingdom health and lifestyle survey. *Arch Intern Med.* **2010**;170:711-8

#### Or the US

■ McCullough ML, Patel AV, Kushi LH, Patel R, Willett WC, Doyle C, Thun MJ, Gapstur SM. Following cancer prevention guidelines reduces risk of cancer, cardiovascular disease, and all-cause mortality. Cancer Epidemiol Biomarkers Prev. 2011;20:1089-97

# Nurturing Nature: the leverage of living well-

- June 12, 2010
- A Decade Later, Genetic Map Yields Few New Cures
  - By <u>NICHOLAS WADE</u>



- http://www.huffingtonpost.com/david-katz-md/the-cup-of-life-medical-s b 617021.html
- Ornish D, Magbanua MJ, Weidner G, Weinberg V, Kemp C, Green C, Mattie MD, Marlin R, Simko J, Shinohara K, Haqq CM, Carroll PR. Changes in prostate gene expression in men undergoing an intensive nutrition and lifestyle intervention. Proc Natl Acad Sci U S A. 2008 Jun 17;105(24):8369-74
  - Hietaniemi M, Jokela M, Rantala M, Ukkola O, Vuoristo JT, Ilves M, Rysä J, Kesäniemi Y. **The effect of a short-term hypocaloric diet on liver gene expression and metabolic risk factors in obese women**. *Nutr Metab Cardiovasc Dis*. 2009 Mar;19(3):177-83
  - □ Freedland SJ, Aronson WJ. **Dietary intervention strategies to modulate prostate cancer risk and prognosis**. *Curr Opin Urol*. 2009 May;19(3):263-7

#### Fresher still-

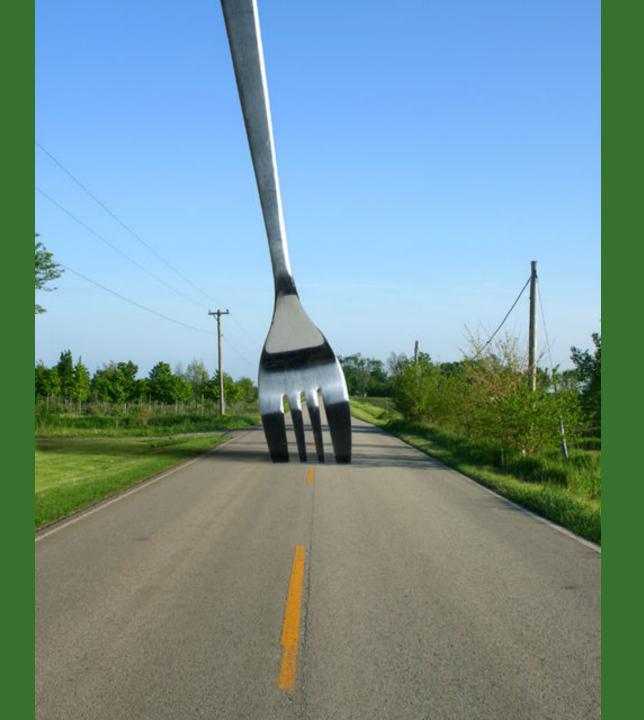
Akesson A, Larsson SC, Discacciati A, Wolk A. Low-Risk Diet and Lifestyle Habits in the Primary Prevention of Myocardial Infarction in Men: A Population-Based Prospective Cohort Study. J Am Coll Cardiol. 2014 Sep 30;64(13):1299-306

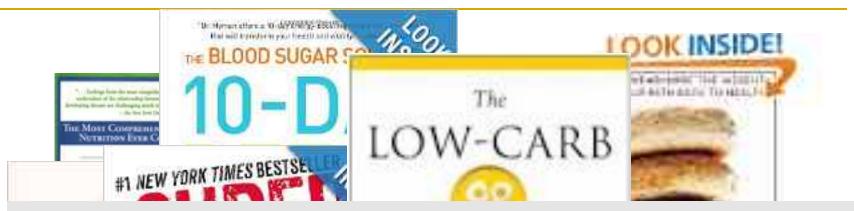
## The Promise of Public Health,

in Private Parts-







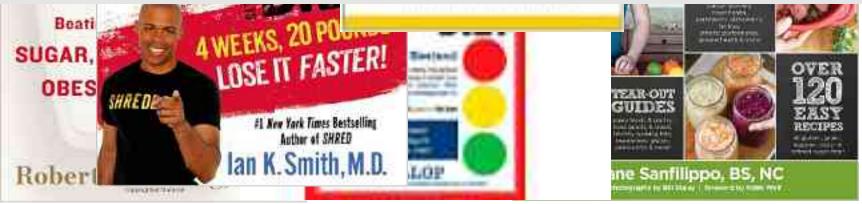


#### Health Diet/Nutrition

### Low-Carb Diet Beats Low-Fat for Weight Loss

Mandy Oaklander @mandyoaklander
 Sept. 1, 2014





# Bird's (Katz'?) eye view-

Katz DL et al. Can we say what diet is best for health? Annu Rev Public Health. 2014 Mar 18; 35:83-103

### Science Compared Every Diet, and the Winner Is Real Food

- Researchers asked if one diet could be crowned best in terms of health outcomes. If diet is a set of rigid principles, the answer is a decisive no. In terms of broader guidelines, it's a decisive yes.
- <u>James Hamblin</u> Mar 24 2014, 1:14 PM ET

the Atlantic

■ Katz DL et al. **Nutrition in Clinical Practice, 3<sup>rd</sup> Edition**. Wolters Kluwer/Lippincott Williams & Wilkins. Publication date: 9/12/14

## Other eyes, on the same prize -

- Mann J et al. Low carbohydrate diets: going against the grain. Lancet. 2014 Oct 25:384;1479-80
- Ley SH, Hamdy O, Mohan V, Hu FB. Prevention and management of type 2 diabetes: dietary components and nutritional strategies. Lancet. 2014 Jun 7;383:1999-2007
  - Katz DL, Hu F. Knowing what to eat, refusing to swallow it. Huffington Post. 7/2/14



"Eat food, not too much, mostly plants."

-Michael Pollan



# Mostly plants? Fuggedaboudit!...

- Blanck HM, Gillespie C, Kimmons JE, Seymour JD, Serdula MK. Trends in fruit and vegetable consumption among U.S. men and women, 1994-2005.
   Prev Chronic Dis. 2008 Apr;5(2):A35. Epub 2008 Mar 15
- Kimmons J, Gillespie C, Seymour J, Serdula M, Blanck HM. Fruit and vegetablei ntake among adolescents and adults in the United States: percentage meeting individualized recommendations. *Medscape J Med*. 2009;11(1):26. Epub 2009 Jan 26

Katz DL. Plant foods in the American diet? As we sow... Medscape J Med.2009;11(1):25. Epub 2009 Jan 26









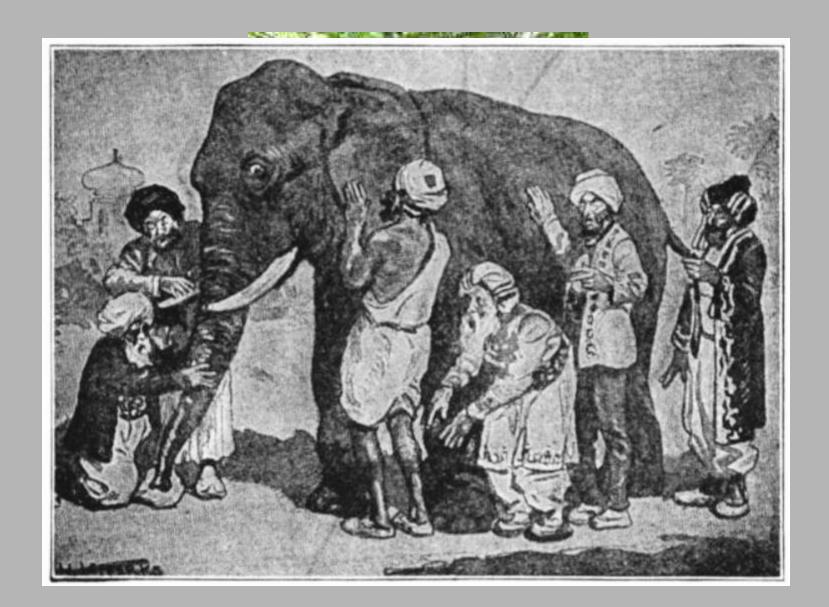
















## Thank you!

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