Why Nutrition Matters More Than We Thought

BOB AND CHARLEE MOORE INSTITUTE FOR NUTRITION AND WELLNESS
Oregon Health and Science University

betterthefuture.org
Why Nutrition is More Important Than We Thought

What do we believe about diet and nutrition

The rise in chronic disease

The early life determinants of disease

What can you learn from a family

Genes and environment

The global food culture must change
The government ensures that packaged foods are nutritious.

You are likely to get most of the nutrients you need by eating a healthy diet.

Vitamins added to processed foods make them healthy.

A normal growth rate shows that a child is consuming a healthy diet.

You can lose weight permanently if you go on a diet.

Once you are an adult, you need only calories, not nutrients.

Most people in the USA eat a healthy diet.
Myth or Truth: You decide

The government ensures that packaged foods are nutritious. **Myth**

You are likely to get most of the nutrients you need by eating a healthy diet. **True**

Vitamins added to processed foods make them healthy. **Myth**

A normal growth rate shows that a child is consuming a healthy diet. **Myth**

You can lose weight permanently if you go on a diet. **Myth**

Once you are an adult, you need calories, not nutrients. **Myth**

Most people in the USA eat a healthy diet. **Myth**
Age-standardized estimates for each of the simple-7 metrics of AHA 2020 Goals among adults over 20 years old.
Top Ten Causes of Death

- Diphtheria, 40.3
- Senility, 50.2
- Cancer, 64.0
- Accidents, 72.3
- Nephropathies, 88.6
- Cerebrovascular disease, 106.9
- Heart disease, 137.4
- Gastrointestinal infections, 142.7
- Tuberculosis, 194.4
- Pneumonia or influenza, 202.2

Mostly Chronic Diseases

- Suicide, 12.2
- Pneumonia or influenza, 16.2
- Nephropathies, 16.3
- Diabetes, 22.3
- Alzheimer's disease, 27.0
- Accidents, 38.2
- Cerebrovascular disease, 41.8
- Noninfectious airways diseases, 44.6

Infectious Deaths: 53% (1900) vs. 0.03% 2010
Period of upward surge in diabetes

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Obesity Trends* Among U.S. Adults
BRFSS, 1992
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1995

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1997
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1999
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2001

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2003
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2004
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2005
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2006

(*BMI ≥30, or ~30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
**BRFSS, 2007**

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Prevalence* of Self-Reported Obesity Among U.S. Adults, by State, BRFSS, 2013

*Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.

Source: Behavioral Risk Factor Surveillance System, CDC.
Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2014
Age-Adjusted Prevalence of Obesity and Diagnosed Diabetes Among U.S. Adults

2010

Obesity (BMI ≥30 kg/m²)

- Missing Data
- 14.0%–17.9%
- 18.0%–21.9%
- 22.0%–25.9%
- ≥26.0%

Diabetes

- Missing data
- 4.5%–5.9%
- 6.0%–7.4%
- 7.5%–8.9%
- ≥9.0%

Predicted Numbers of Excess Cases of Coronary Heart Disease based on Current Children with T2 Diabetes

Adolescent Overweight and Future Adult Coronary Heart Disease
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The Barker Hypothesis:
Early Life “Programming” of Chronic Disease

Birthweight Also Predicts:
- Type 2 Diabetes
- Obesity
- Hypertension
- COPD
- Asthma
- Cognitive Function

Poor growth before birth results in a weakened body for life


David JP Barker
1938-2013
High Nutrient Needs

Brain Weight (kg)

Age (years)

Newborn 0.5 1 2 3 4-5 6-7 8-9 10-12 13-15 16-18 19-21 22-30 31-40 41-55 56-65 66-75 76-80 81-85 86+

(Brain Weight/Body Weight) x 100

Male
Female

https://faculty.washington.edu/chudler/gif/brweight.gif
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Nutrients flow from one generation to the next through direct nutrient epigenetic effects on the human egg in the womb.

The egg that made this girl was nourished by her grandmother when her mother was in her grandmother’s womb.
Top Ten Causes of Death

Mostly Chronic Diseases

- Suicide, 12.2
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2010

Chronic Diseases Arise from Early Life Growth Patterns (Nutrition) and Stress. These diseases can be eliminated over time through good nutrition in the population.

About 70% of people who are diabetic acquire heart disease.
Eat These Foods Every Day

- Vitamins
- Minerals
- Unsaturated fatty acids
- Antioxidants
- Hundreds of health promoting nutrients
Heart Attack Grill spokesman John Alleman suffers heart attack — becomes second unpaid mascot to die in 2-years. National Post  February 13, 2013 Associated Press
“Sinner Ladies Sell Kids Junk Food”
_The Sun_ Feb 29 2008 online
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Conclusions

The US public believes a number of myths that prevents them from eating well.

Obesity and Diabetes have been rising for 2 decades. These rises predict an upcoming health crisis.

Chronic Diseases are caused by poor nutrition and stress in early life.

Poor or excess growth in early life predicts chronic disease in adults and the risk will be passed to the next generation.

The food environment changes people’s genes by epigenetics.

People’s diets are set by their food culture. We must work to change it.