

# OSAMA HAMDY, MD, PhD, FACE

Medical Director, Obesity Clinical Program and Director of Inpatient Diabetes  
Management

Joslin Diabetes Center

Assistant Professor of Medicine

Harvard Medical School

## Evidence-Based Approaches to Nutrition and Its Effects on Diabetes and Obesity

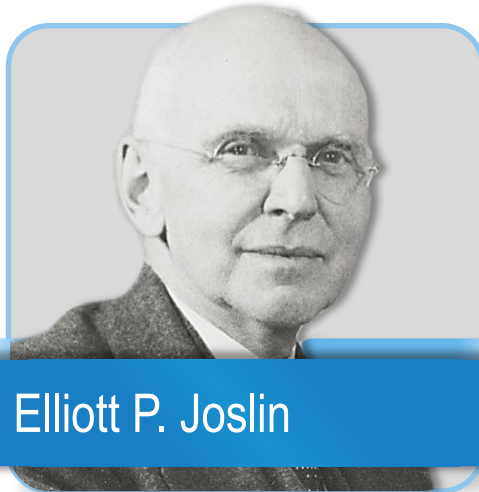
**David Ludwig, MD, PhD**, Director, New Balance Foundation Obesity Prevention Center, Boston Children's Hospital; Professor, Pediatrics, Harvard Medical School; Professor, Nutrition, Harvard School of Public Health

**Jeff Volek, PhD, RD**, Professor, University of Connecticut

**Timothy Noakes, MD, MBChB, MD, DSc, PhD**, Professor, Discovery Health Chair of Exercise and Sports Science, University of Cape Town; Director, UCT/MRC Research Unit for Exercise Science and Sports Medicine, Co-Founder, Sports Science Institute of South Africa

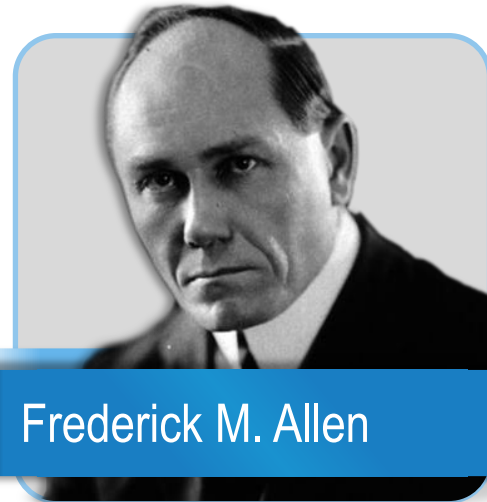
**Gary Taubes**, Co-Founder, Nutrition Science Initiative and Author, *Why We Get Fat* and *Good Calories, Bad Calories*

# The Impact of Diet on Diabetes: Known Before the Era of Diabetes Medications



Elliott P. Joslin

1869-1962  
Joslin Clinic  
Boston, MA

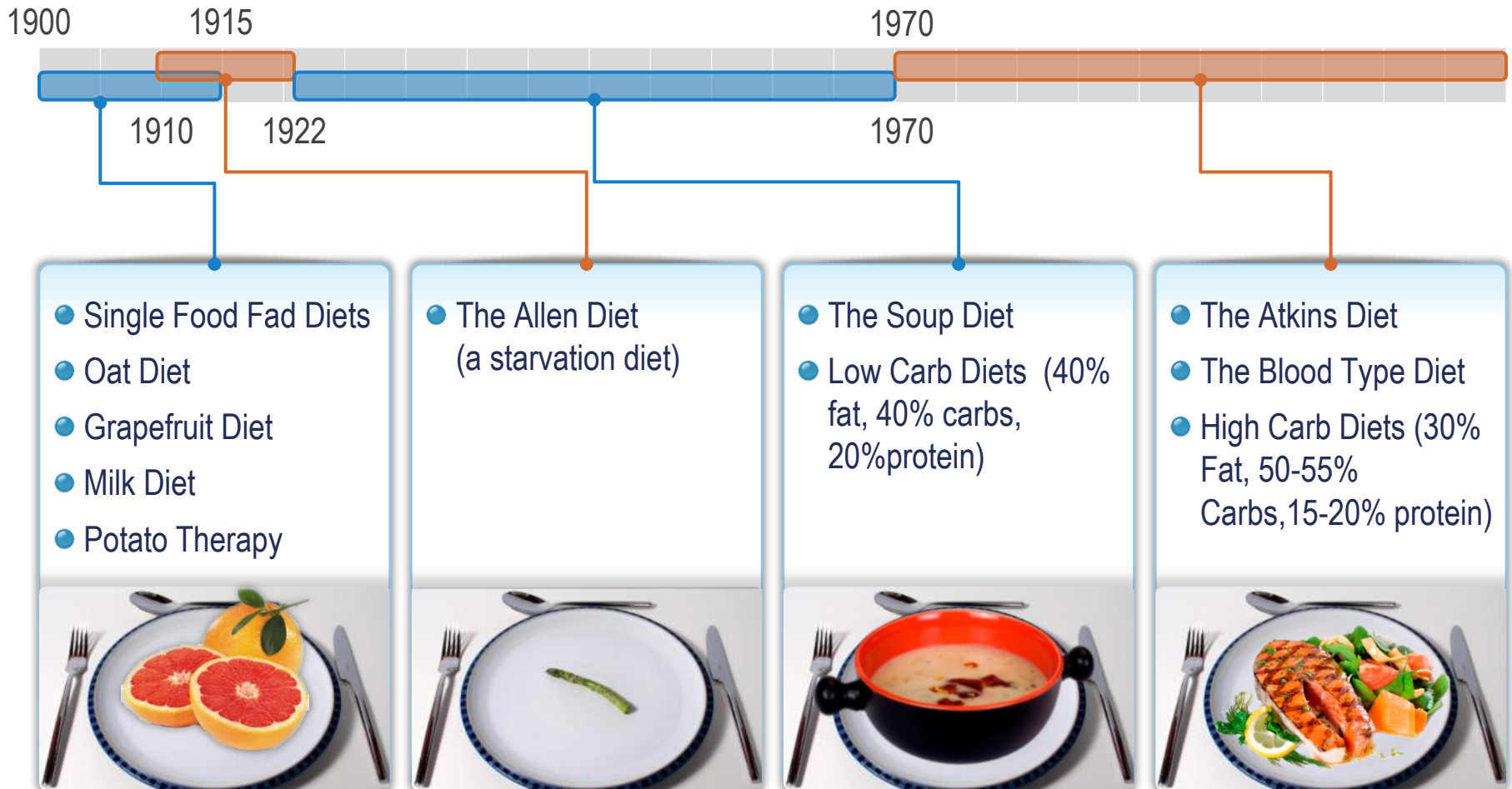


Frederick M. Allen

1879-1964  
Physiatric Institute  
Morristown, NJ

Die of diabetes or risk "inanition": "Starvation due to inability to acquire tolerance for any living diet."

# Historically Food Myths, Fad Diets and Dietary Trends Have Always Been Popular



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# Learning Outcomes

- From a metabolic perspective, all calories are not alike. Reduction of calorie intake, without regard to dietary quality, elicits physiological adaptations that make ongoing weight loss progressively more difficult. A potentially more effective approach is to focus on dietary quality in general, and reduction in intake of refined carbohydrate in particular.

David Ludwig, MD, PhD

# Learning Outcomes

- Insulin resistance, the hallmark of type-2 diabetes and primary defect underlying metabolic syndrome, is characterized by impaired metabolism of carbohydrate or in other words it is a 'carbohydrate intolerant' state that is most effectively managed by restricting dietary carbohydrate to a level that can be tolerated. People vary in their carbohydrate intolerance, and thus dietary recommendations need to be tailored to the person.

Jeff Volek, PhD, RD

# Learning Outcomes

- In T2DM hepatic glucose production is the larger problem than impaired muscle glucose uptake. The correct treatment is to reduce carbohydrate intake to about 25g carb per day as this reduces liver glucose production. Just cutting refined carbs is of no value since all carbs drive liver glucose production.

Timothy Noakes, MD