

Performance and Therapeutic Effects of Ketones: A Target-Rich Environment

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Summary: Three-fourths of American adults are overweight, one-half are prediabetic or diabetic, and the numbers continue to rise. The economic burden of diabetes alone exceeds \$300 billion/year. Traditional drug and lifestyle treatments have had limited success in curtailing the obesity and diabetes epidemics. Because these conditions are fundamentally diseases of carbohydrate intolerance, they are best treated by restricting carbohydrate, especially a very low-carbohydrate ketogenic diet (KD). Because of the historical negative connotation and bias against ketones, research on KDs over the last half century has been challenging to perform. However, the last 15 years has produced a critical mass of discoveries that link ketones and the process of keto-adaptation to broad-spectrum health benefits. This presentation will debunk long-standing dogma maligning fat and ketones, and discuss the evidence supporting keto-adaptation as a target-rich technology that delivers transformative disease-reversing and performance-enhancing outcomes. Dr. Volek will share highlights of his research that spans from reversing obesity and type-2 diabetes to enhancing the safety/efficacy of cancer treatments to augmenting soldier readiness and helping athletes make record-breaking achievements.

Bio: Dr. Volek is a registered dietitian and professor in the Department of Human Sciences at The Ohio State University. For the last two decades, he has performed cutting edge research on how humans adapt to ketogenic diets with a dual focus on clinical and performance applications of nutritional ketosis. His scholarly work includes more than 320 peer-reviewed scientific manuscripts and five books including a New York Times best seller. Dr. Volek's work has contributed to the existing science of ketogenic diets, their use as a therapeutic tool to manage obesity and diabetes, plus their increasing potential to treat cancer and augment human performance. Dr. Volek is the Chief Science Officer and Co-Founder of Virta Health, the first clinically proven treatment to safely and sustainably reverse type 2 diabetes without medications or surgery. Dr. Volek has a Bachelor of Science in dietetics from Michigan State University, and a Master of Science in exercise physiology and Doctorate in kinesiology and nutrition from Pennsylvania State University.

