

Circadian Optimization of Fruit and Vegetable Intake: A Gut-Exerciser Probiotic

Akbar Nikkhah*

Department of Animal Sciences, Faculty of Agricultural Sciences, University of Zanjan, National Elite Foundation, Iran

*Corresponding author: Chief Highly Distinguished Professor, Foremost Principal Highly Distinguished Elite-Generating Scientist, Department of Animal Sciences, Faculty of Agricultural Sciences, University of Zanjan, National Elite Foundation, Iran, Tel: 0098-241-5152801; E-mail: anikkha@yahoo.com

Rec Date: June 07, 2015; Acc Date: June 08, 2015; Pub Date: June 10, 2015

Copyright: © 2015 Nikkhah A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

This article develops an innovative pragmatic strategy to improve gut physiology and health by optimizing the circadian timing of fruits and vegetables consumption. Stimulating probiotic gut dynamics with selected fruits intake at the commencement of activity phase (i.e., early morning) complemented by vegetables and additional fruits consumption at the beginning of inactivity phase (i.e. evening and overnight) is recommended. This will enable the gut to maintain its efficient physiology during the most stressful time of the day and to minimize risks from energy overintake and related metabolic comorbidities.

Keywords: Fruit; Vegetable; Circadian timing; Gut physiology; Probiotic

Foundational Science and Logic

The modern trends of human lifestyle contributed significantly to increased incidence of many undesirable conditions of mainly inferior life quality due to metabolic and nervous diseases, morbidities and mortalities [1,2]. Impaired timing of foods and fruits-vegetables intake is a key reason for such a global disaster. Not eating adequate and healthy breakfast and taking unhealthy fast foods during the stressful and overly busy day times seriously threat gut health, which is exacerbated by inappropriate timing and choices of evening meals [3-5].

Science Innovation for Global Health Guidelines

The living gut requires regaining its active physiology post-nocturnal-sleep when activity begins in early morning. Exercise has long been considered as an excellent inducer of healthy metabolism to prepare the entire body for the upcoming active phase [6]. However, gut also needs sufficient exercise that is partly supplied by early morning physical activity, which must be complemented through timely intake of fibrous fruits, such as skinned apple and cucumber as well as fresh leaves and stems of a variety of vegetables. This early morning intake of fibrous and partly energizing brief meals ensures that physical activity suitably serves the gut physiology and health towards a motivating and relaxing day of intense activity. This phenomenon must be responsibly educated and disseminated worldwide for its practical consequences to be effectively realized [7,8].

Later on at the end of the activity period when evening begins, large starchy and fatty meals must be avoided and instead brief foods should be supplemented with fresh vegetables and fruits. The evening consumption of such a fibrous and vitamin-mineral-rich meal will soon induce satiety via both physical and chemical constraints. As a result, overintake of energy and chances for adiposity and obesity are minimized, thereby helping the body to be more resistant against risk factors of diabetes and related metabolic and cardiovascular abnormalities. As a rule of thumb, one skinned apple at the

commencement and another at the end of wake daily period should be taken (i.e., just after morning wake-up and just before nocturnal sleep). Fresh and cell wall-rich vegetables of mainly stems and leaves must also be taken to ensure stimulating sufficient gut mechanics. Public education must be persistently exercised to optimally disseminate knowledge and insight for timely practice. Such a pragmatic science drives the modernized human to move back towards nature where internal rhythms of human physiology are optimally synchronized and harmonized with environmental cues [9-11]. This is a real probiotic for optimal gut physiology and entire body performance.

Implications

Optimizing the circadian patterns of fruits and vegetables intake is a gut-exerciser probiotic that must be accommodated in modern and postmodern public health and nutrition programs. Starting and terminating the wake daily period with fibrous and relatively energizing fruits and vegetables consumption induces optimal gut dynamics while helping to minimize risks of energy overingestion, obesity, diabetes, and metabolic and cardiovascular comorbidities.

Acknowledgments

Thanks to the Ministry of Science Research and Technology, National Elite Foundation, and University of Zanjan for supporting the author's global initiatives and programs of optimizing science edification in the third millennium.

References

1. Nikkhah A (2013) NutriGenomics: An Epi-Innovative Science, Jahade-Daneshgahi Publishers, Tehran, Zanjan, Iran.
2. Nikkhah A (2012) Eating time modulations of physiology and health: life lessons from human and ruminant models. *Iranian J Basic Med Sci* 15: 787-794.
3. Nikkhah A (2014) Eating timing and diabetes. *Int.J. Diabetol. Vas Dis Res* 2: 101.
4. Nikkhah A (2011) Science of eating time: A novel chronophysiological approach to optimize glucose-insulin dynamics and health. *J Diabetes Mellitus* 2: 8-11.

5. Nikkhah A (2015) Wrecked oncogenesis through synchronized substrate availability and oxidation: A novel bioengineering of cell physiology. Aust J Biotechnol Bioeng 2: 1042-1043.
6. Nikkhah A (2015) Circadian Fitting of Exercise and Eating Patterns: The Secret of Healthy Life. J Bioprocess Biotech 5: e129.
7. Nikkhah A (2012) The art of science education. In: Robert V. Nata (ed) Progress in Education. Nova Science Publishers, Inc, NY, USA, pp. 159-164.
8. Nikkhah A (2012) Structuring science education in the new millennium: Authorizing a succeeding integrity. Editor: Robert V. Nata. In Progress in Education. Nova Science Publishers, Inc, NY, USA. Pp, 171-176.
9. Nikkhah A (2015) Nature as an Ideal Rhythm Model for Optimal Cardiovascular Physiology and Health. Int J Diabetol Vasc Dis Res 3: 1-2.
10. Nikkhah A (2014) Legumes as Medicine: Nature Prescribes. Med Aromat Plants 3: e153.
11. Nikkhah A (2015) Harmonizing Eating and Exercise Circadian Rhythms for Optimal Glucose-Insulin and Vascular Physiology. Int J Diabetol Vasc Dis Res Int J Diabetol Vasc Dis Res 3: 87-88.