

Nature as an Ideal Rhythm Model for Optimal Cardiovascular Physiology and Health

Editorial

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Abstract

This article innovatively describes nature as an ultimate rhythm model for optimizing human physiology and health. Circadian rhythms of biological systems orchestrate cell metabolism and survivorship for reasonable longevity and health. Establishing optimal circadian rhythms of life affairs of mainly eating, resting and exercising will better coordinate metabolic interactions among different tissues. As a result, cardiovascular energetic and waste management could significantly improve.

Keywords: Nature; Rhythm; Model; Cardiovascular System; Physiology.

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Science Description and Innovation

Nature functions on a circadian cycle that equals to almost a 24-h period [1]. This means that any biological system in nature must develop and possess such circadian rhythmicity in its physiological foundation to be able to survive. Apart from evolution, mammals including humans in most parts of the world live within circadian life patterns that regulate their physiology healthfully. The phenomenon of modernity, however, has in many ways interfered with such a natural rhythmicity of human physiology. Altered and in many cases entirely or partially shifted times of eating, sleeping, physical activity, socializing, travelling and all related life tasks have led to altered physiological responses from cells and tissues to environmental cues. This consequence must have contributed to the emergence and increased incidence of many complicated diseases and syndromes such as cancer and brain-nervous-immune abnormalities in modern humans.

Cardiovascular complexities and deficiencies as major causes of morbidity and mortality worldwide could increasingly occur due to asynchronies in circadian patterns of eating, resting and exercising [2-4]. Irregular daily patterns of eating and resting rate and extent alongside no time allowance for adequately intense physical activity immensely impair normal cardiovascular function. It has recently been criticized that defining weekly minimums of exercise time and intensity are greatly insufficient and unrepresentative in meeting cardiovascular requirements of metabolic turnover and waste drainage and management [4, 5]. In other words, regularities in conducting adequate exercise and low-stress social interactions complemented with timely and frequent-and-light eating meals must be established on a circadian basis and not in longer intervals [6-8]. This guarantees that cell physiology abides by natural laws in maintaining optimal nutrient intake behaviour, metabolic and oxidation rate, and waste managing. The consequence is a healthy life with minimal life physiological tolls [9, 10].

Implications

This article established a novel ideology that directs human physiology down from genes and their components up to organs and the whole body to accord with natural rhythms of especially circadian properties. Eating, sleeping, resting, exercising, socializing, travelling, and related life affairs must be coordinated within a rhythmic circadian framework for the cardiovascular system to function optimally with reasonable longevity.

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