

News and Views

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NEWS

Potential of 4-7-8 Breathing Technique in tackling Acute Sleep Deprivation

The average sleep duration required for an adult is typically between 7 to 8 hours per day.^[1] According to Philips Global Sleep Survey 2019, 67% of adults worldwide reported experiencing sleep disturbances, with sleep deprivation accounting for 20%.^[2] Acute sleep deprivation, characterized by a complete lack of sleep or a reduction in the usual total sleep time lasting one or two days,^[3] has been associated with a myriad of adverse health outcomes.

Studies have illuminated the physiological mechanisms behind these effects, highlighting an increase in sympathetic activity and decrease in parasympathetic activity as potential contributors.^[4] Notably, slow and deep breathing, particularly at a rate of 6 breaths/minute, has been shown to increase the parasympathetic activity, improve baroreflex sensitivity and reduce the sympathetic activity within minutes, even among untrained subjects.^[5]

The 4-7-8 breathing technique with breath inhalation through nostril for 4 counts, holding of breath for 7 counts and exhalation via mouth for 8 counts respectively has gained immense popularity.^[5] This technique, derived from ancient yogic practices and popularized by American physician Dr. Weil, has gained significant attention for its potential in addressing sleep disturbances.^[6] While anecdotal evidence abounds, studies have begun to underscore its effectiveness in reducing stress, lowering blood pressure, and enhancing overall sleep quality. Vierra et al used 4-7-8 breathing control for six cycles/set, for three sets interspersed between by 1-min normal breathing and found significant results.^[5] With its straightforward approach, the 4-7-8 breathing technique offers hope for those grappling with sleep disturbances. However, more research is warranted to draw conclusive evidence regarding its efficacy in tackling acute sleep deprivation.

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VIEWS

Breathing Life: A Coffee Alternative - Exploring the 4-7-8 Technique

According to today's modern world, sleep deprivation is inevitable due to varying work hours, life style changes, poor sleep habits. As society seeks healthier alternatives to caffeine for boosting wakefulness, the 4-7-8 breathing technique emerges as a compelling solution. Rooted in ancient wisdom and supported by modern research, this technique offers a natural means of stimulating the body's parasympathetic nervous system with a 2:1 ratio of expiration to inspiration, breath holding more than 1 second contributing to Respiratory sinus arrhythmia.

By prioritizing the mind-body connection, individuals can tap into the power of breath to combat fatigue and maintain cognitive function throughout the day. In a world where productivity often takes precedence over well-being, the 4-7-8 technique underscores the importance of balance and self-care in achieving optimal wakefulness.

As research continues to uncover its mechanisms and effectiveness, the 4-7-8 breathing technique stands as a holistic intervention for revitalizing wakefulness, offering a healthier and sustainable alternative to coffee consumption.