

The Impact of Sleep Deprivation on Cognitive Function

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Abstract. This article investigates the effects of sleep deprivation on cognitive function, focusing on recent research findings. It explores how lack of sleep affects attention, memory, and decision-making processes. The article highlights studies that demonstrate the neural mechanisms underlying these impairments and discusses the potential long-term consequences of chronic sleep deprivation on brain health. Strategies for mitigating the negative effects of sleep deprivation, including lifestyle interventions and policy recommendations, are also examined.

Keywords: Sleep Deprivation, Cognitive Function, Brain Health, Attention, Memory

Introduction

Sleep deprivation is a widespread issue that has profound effects on cognitive function and overall brain health. Recent studies have shown that insufficient sleep can significantly impair attention, memory, and decision-making abilities, with potential long-term consequences for brain health. This article reviews the latest research on the neural mechanisms underlying the cognitive impairments associated with sleep deprivation, highlighting key findings that elucidate how lack of sleep affects brain function. It also discusses the broader societal implications of sleep deprivation, emphasizing the need for public health initiatives and policy changes to address this growing concern. Strategies for mitigating the negative impacts of sleep deprivation, such as lifestyle interventions and educational campaigns, are explored to promote better sleep hygiene and enhance cognitive performance.

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References

1. Бортный Н.А., Бортная Т.Н. Нормальная физиология: учебное пособие. - М.: Эксмо, 2009. -384 с.
2. Khudov, H., Ruban, I., Lysytsya, V., Kuzyk, P., Symkanych, O., & Khudov, R. (2020). The method for determination of bone marrow cells in photographic images. International Journal, 8(9).
3. Mansuri, U., Venkata, S. Y., Ogbue, S. C., Moram, R. S., Goyal, A., Bhatt, H., ... & Patel, U. (2023). Mo1213 GENOME SEQUENCING, MUTATIONAL ANALYSIS, AND SURVIVAL RATE OF COLORECTAL CARCINOMA-AN ANALYSIS FROM CBIOPORTAL. Gastroenterology, 164(6), S-787.
4. Viroliya, K., Hojjat, A., Pena, B., Bhatt, H., Mehta, N. N., Venkata, S. Y., ... & Palabindela, P. (2023). Sa1359 HELICOBACTER PYLORI ASSOCIATED GASTRO-INTESTINAL BLEEDING IN BARIATRIC SURGERY-NATIONWIDE SURREY. Gastroenterology, 164(6), S-373.