



Caffeine: A boon or a bane?

Siddhi Patel; MBBS*¹ & Kaustav Das; MBBS¹

¹ Final Year MBBS student, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Dr. D.Y. Patil Vidyapeeth, Pimpri, Pune, India.

ARTICLE INFO

EDITORIAL ARTICLE

Article history:

Received: 24 May 2024

Revised: 27 May 2024

Accepted: 30 May 2024

Corresponding author:

siddhi.patel9212@gmail.com

Final Year MBBS student, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Dr. D.Y. Patil Vidyapeeth, Pimpri, Pune, India.

Postal code: 400701

Tel: +917 977 937730

Dear Editor,

Caffeine, the extensively honored central nervous system boost constitute in coffee, tea, and chocolate, has been considerably delved for its different impacts on health (Martyn *et al.*, 2018). While moderate input offers benefits like enhanced mood and alertness (McLean *et al.*, 2010, Mitchell *et al.*, 2014), inordinate consumption poses pitfalls, including headaches, pulsations, and anxiety.

Studies emphasize caffeine's eventuality in precluding conditions like Parkinson's and certain cancers, but overdue daily input can lead to adverse symptoms and increase the threat of death from various causes, including suicide (Jahrami *et al.*, 2020). On comparing the caffeine content of different products, brewed coffee offers 96 mg per 237 ml, while decaf coffee provides only 2 mg in the same serving size. Concentrated espresso coffee contains 64 mg per 30 ml, and decaf espresso contains none. Instant coffee and its decaf interpretation have analogous caffeine situations, accessible for on- the- go consumption. Chocolate options range from 100% cocoa with

240 mg per 2.5 cups to milk chocolate with 45 mg in the same serving size. Green tea and black tea give moderate caffeine kicks with 40 mg and 26 mg independently. Additionally, chewing gum and soda contain 50 mg per 2 pieces and 49 mg per 16oz respectively (Fulgoni III *et al.*, 2015, Mitchell *et al.*, 2014, Tran *et al.*, 2016). These products, along with others listed, contribute to diurnal caffeine intake, emphasizing the significance of moderation for overall health.

The illustration of the chance of caffeine product input across different age groups- 32 for children, 48 for university pupils, 60 for commercial workers, 53 for middle-aged individuals, and 65 for elderly citizens (Branum *et al.*, 2014). These numbers punctuate the wide prevalence of caffeine consumption across various demographics, emphasizing its part as a ubiquitous salutary element throughout different life stages.

Caffeine products carry a range of implicit side goods that individuals should consider. Coffee consumption may lead to headaches, insomnia, unease, perversity, frequent urination, tachycardia, and muscle temblors. Likewise, tea

consumption can reduce iron absorption, anxiety, insomnia, nausea, heartburn, dizziness, and headaches. Energy drinks, known for their high caffeine content, can catalyze dehydration, irregular heartbeats, anxiety, and insomnia. Furthermore, other caffeine-containing products may contribute to hypertension, tachycardia, dependence, tolerance, and pulsations (McLean *et al.*, 2010)[3]. These side effects emphasize the significance of moderation and mindfulness when consuming caffeinated products, as well as the need for individuals to monitor their caffeine input and its implicit impacts on their health.

In conclusion, while caffeine can offer benefits when consumed responsibly, its implicit adverse effects emphasize the significance of promoting mindfulness and encouraging healthier alternatives. This comprehensive data highlights the ubiquity of caffeine across varied products and age groups, emphasizing the need for a delicate approach to its consumption. By fostering a culture of moderation and seeking substantiated guidance from healthcare professionals; individuals can consume caffeine more effectively, ensuring optimal health across all life stages.

Acknowledgement

No funding was required for this research.

Authors' contributions

The authors involved equally in data collection, manuscript preparation and finalized it.

Conflict of interest

The authors declared no conflict of interest.

References

- Branum AM, Rossen LM & Schoendorf KC** 2014. Trends in caffeine intake among US children and adolescents. *Pediatrics*. **133** (3): 386-393.
- Fulgoni III VL, Keast DR & Lieberman HR** 2015. Trends in intake and sources of caffeine in the diets of US adults: 2001–2010. *American journal of clinical nutrition*. **101** (5): 1081-1087.
- Jahrami H, et al.** 2020. Intake of caffeine and its association with physical and mental health status among university students in Bahrain. *Foods*. **9** (4): 473.
- Martyn D, Lau A, Richardson P & Roberts A** 2018. Temporal patterns of caffeine intake in the United States. *Food and chemical toxicology*. **111**: 71-83.
- McLean SA, Paxton SJ & Wertheim EH** 2010. Factors associated with body dissatisfaction and disordered eating in women in midlife. *International journal of eating disorders*. **43** (6): 527-536.
- Mitchell DC, Knight CA, Hockenberry J, Teplansky R & Hartman TJ** 2014. Beverage caffeine intakes in the US. *Food and chemical toxicology*. **63**: 136-142.
- Tran N, Barraj L, Bi X & Jack M** 2016. Trends and patterns of caffeine consumption among US teenagers and young adults, NHANES 2003–2012. *Food and chemical toxicology*. **94**: 227-242.