



# Brahma Muhurtha: An Ayurvedic Concept With Scientific Physiological Correlates

<sup>1</sup>Meera K, <sup>2</sup>Kaveri S G, <sup>3</sup>Pretty P

<sup>1</sup>P G Scholar, <sup>2</sup>P G Scholar, <sup>3</sup>Associate Professor

<sup>1</sup>Department of Shareera Kriya,

<sup>1</sup> Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Hassan-573201, Karnataka, India

**Abstract:** **Background:** Ayurveda upholds the principle of “*Swasthasya Swasthya Rakshanam*”—the preservation of health in healthy individuals. As part of this, classical texts recommend *Dinacharya* (daily regimen), which begins with awakening during *Brahma Muhurtha*, the pre-dawn period considered ideal for overall well-being. **Objective:** To review the Ayurvedic significance of *Brahma Muhurtha* and correlate it with modern physiological and chronobiological evidence. **Method:** A narrative review of classical Ayurvedic literature and contemporary scientific studies related to early morning wakefulness, circadian rhythms, and their effects on human health was undertaken. **Results:** Awakening during *Brahma Muhurtha* is associated with enhanced cognitive function, improved hormonal regulation, better immune response, cardiovascular stability, and emotional balance. These effects are supported by modern insights into circadian biology, which highlight the benefits of synchronizing daily activities with natural biological rhythms. **Conclusion:** The practice of waking during *Brahma Muhurtha* represents a holistic and evidence-aligned approach to health promotion. Integrating this principle into daily life may contribute to improved health, longevity, and overall well-being

**Index Terms -** *Brahma Muhurtha*, Ayurveda, *Dinacharya*, Circadian Rhythm, Physiology.

## INTRODUCTION:

Ayurveda emphasizes preventive health through *Dinacharya* (daily regimen), in which awakening during *Brahma Muhurtha* is regarded as the ideal time for learning, meditation, and health promotion. Modern chronobiology provides physiological correlates for this practice, as this period coincides with the cortisol awakening response, enhanced insulin sensitivity, peak neuronal plasticity and favourable shifts in cardiovascular and immune regulation. Synchronizing wakefulness with these biological rhythms optimizes cognitive, metabolic, and emotional functions while circadian misalignment is linked to metabolic, cardiovascular, and psychological disorders. Thus, the Ayurvedic concept of *Brahma Muhurtha* reflects an early recognition of circadian physiology which offers a holistic approach to health and longevity.

## REVIEW OF BRAHMA MUHURTA

*Brahma* means *Gyan* or knowledge. *Muhurta* is a period of 48 minutes. The term “*Brahma Muhurta*” can be considered as the best time for *Gyanarjana* or gaining knowledge<sup>1</sup>. *Brahma Muhurta* is the 14th *Muhurta* of the night, and every *muhurta* is taken as 48 minutes. As per Arunadatta commentary, the day and night is divided into equal halves with day and night comprising of 15 *Muhurthas* each. *Muhurtha* is taken as as *Dwighatika* which means 48 minutes (24\*2). *Brahma Muhurta* begins 1 hour

and 36 minutes before sunrise and ends 48 minutes prior. *Brahma Muhurta* begins at dawn and is the second-to-last *Muhurta* of the night<sup>2</sup>.

The time of sunrise changes according to geographical location and seasonal variation likewise the *Brahma Muhurtha* also changes.

### **Practices to be Followed During Brahma Muhurta:**

According to various *Acharyas*, several beneficial practices are recommended during *Brahma Muhurta*:

*Acharya Vagbhata*: States that rising early in the morning supports longevity and overall well-being<sup>1</sup>

*Vridha Vagbhata*: Suggests that after waking up early, one should focus on the proper digestion of previously consumed food.<sup>3</sup>

*Bhavaprakasha* and *Yogaratanakara*: Emphasize remembering God (Madhusudana) upon waking, and engaging with auspicious sights such as curd, ghee, Gorochana, Bilwa, or viewing one's reflection in ghee, which is believed to promote longevity.<sup>4,5</sup>

*Arundatta*: Considers Brahma Muhurta the most favorable time for learning.

*Maharshi Angira*: Recommends remembering Hari after cleansing the hands and feet in the early morning.

### **BENEFIT OF BRAHMA MUHURTHA**

It is considered to be an auspicious time for yogic practices like yoga, meditation, worship and other religious activities. It is believed that any spiritual activity performed at this time is more potent than at any other time of the day. It helps to synchronize with the cosmos' energy rhythm. *Brahma Muhurta* is also considered the best time to enjoy the pure atmosphere through which the body's health and vitality can be preserved. During this period, the immune system is enhanced, memory power and intellectual power are improved, reduces stress and provides a blissful life<sup>6</sup>. This time is extremely crucial for reviving many physiological functions related to hormonal changes.

Several scientific studies highlight the benefits of early waking and morningness. Kohyama reported that children who rise earlier are more physically active throughout the day<sup>7</sup>. Randler and Hasler found that morning-oriented individuals tend to have better mental health, higher self-esteem and lower risk of depression compared with evening types<sup>8</sup>.

### **DOSHIC ASSOCIATIONS**

As per Ayurveda, the three *Doshas* -*Vata*, *Pitta*, and *Kapha* are associated with specific times of the day. *Brahma Muhurta* falls within the *Vata* time of the morning during which all five subtypes of *Vata* are believed to function at their best. Consequently, the natural elimination of *Purisha* (stool) through the action of *Apana Vayu* occurs most effectively in the early morning. Waking up after this period may disturb the balance of *Apana Vayu*, potentially leading to issues such as constipation. Studies suggest that rising during Brahma Muhurta supports bowel regularity and helps relieve constipation, as the optimal state of *Apana Vayu* promotes healthy physiological functioning.

### **PHYSIOLOGICAL CORRELATES ID BRAHMA MUHURTHA**

#### **Circadian Rhythm Alignment:**

The suprachiasmatic nucleus (SCN) in the hypothalamus regulates the circadian rhythm, synchronizing physiological functions with the light–dark cycle. Waking up early helps maintain this alignment, thereby improving overall health. In contrast, circadian misalignment caused by late sleeping and late rising is strongly associated with obesity, type 2 diabetes, depression and cardiovascular disease.<sup>9,10</sup>

#### **Cortisol Awakening Response (CAR):**

Cortisol secretion follows a diurnal pattern, peaking within 30–45 minutes after awakening. This surge enhances alertness, attention and stress resilience. Early rising coincides with this natural peak which ensure optimal hormonal responsiveness. Delayed waking, however, is associated with a blunted CAR, which has been linked to depression, fatigue and impaired stress regulation.<sup>11</sup>

#### **Mental Health and Cognitive Benefits:**

Morning types, or early risers, consistently report lower rates of depression and anxiety compared to evening types. Proper synchronization with circadian rhythms enhances memory, focus, and learning

capacity. Moreover, early waking has been linked to higher levels of brain-derived neurotrophic factor (BDNF), a key molecule supporting neuroplasticity and cognitive performance<sup>12</sup>

### **Metabolic Health:**

Insulin sensitivity and glucose tolerance are highest in the morning, suggesting that early waking and morning activity support better metabolic function. Individuals who wake and eat late are more likely to consume high-calorie meals at night, predisposing them to obesity, glucose intolerance and metabolic syndrome<sup>13</sup>

### **Immune Function:**

Circadian alignment also plays an essential role in immune regulation. Early waking allows for proper melatonin clearance, which is important for antioxidant defense and immune-modulatory processes. Synchronization with the natural circadian cycle supports stronger immune surveillance and reduces chronic inflammation<sup>14</sup>

### **Cardiovascular Benefits:**

Blood pressure, heart rate, and vascular function follow circadian cycles. Early risers demonstrate better autonomic balance, reflected in higher heart rate variability (HRV) and are at lower risk of hypertension and related cardiovascular disorders. In contrast, circadian disruption has been associated with increased morning prothrombotic activity and higher long-term cardiovascular risk.<sup>15</sup>

## **DISCUSSION**

The Ayurvedic concept of *Brahma Muhurta* emphasizes alignment of the body with nature's rhythms. Classical texts describe this time as *Vata*-dominant, supporting elimination, clarity of mind, and preparation for the day ahead. Modern chronobiology provides a scientific basis for these observations. Waking early aligns biological functions with the circadian rhythm regulated by the suprachiasmatic nucleus, promoting metabolic balance, hormonal regulation, and mental well-being. The cortisol awakening response, peaking soon after natural waking, enhances alertness and stress resilience when rising early but is blunted by delayed waking. Early risers also demonstrate better mental health, cognitive function and immune regulation along with reduced risks of metabolic and cardiovascular disease.

## **CONCLUSION**

*Brahma Muhurta* is considered as the best time for attaining knowledge. It also supports optimal elimination, clarity of mind, and readiness for daily activities. Classical recommendations of rising during this time align with modern scientific findings on circadian biology. Early waking enhances synchronization with the suprachiasmatic nucleus, optimizes the cortisol awakening response, improves metabolic and immune functions, and lowers risks of cardiovascular and psychological disorders. Thus, the Ayurvedic concept of *Brahma Muhurta* not only reflects deep traditional wisdom but also corresponds with physiological principles validated by contemporary research, offering a comprehensive approach to health, well-being, and longevity.

## **REFERENCES**

1. Ashtangahrdayam of Vagbhata, edited with the Vidyotini Hindi commentary by Kaviraj Atridev Gupta, edited by Vaidya Yadunandana Upadhyaya, Chukhamba Prakashan, Varanasi, Edition: reprint 2011; Su. 2/1
2. Vāgbhāṭa. *Aṣṭāṅga Hṛdaya*, Sūtrasthāna, Chapter 2, Verse 1. With Sarvāṅgasundarī commentary of Arunadatta and Āyurvedarasāyana commentary of Hemādri. Varanasi: Chaukhambha Sanskrit Sansthan; 2013. p. 22.
3. Ashtang Samgrah edited with Arthaprakashika Vyakhyaaya by Vaidya Govardhansharma Changani, Chaukhamba Sanskrit Sansthan, Varanasi, 2005; Su. 3/3
4. Bhavprakashya of Bhavmishra edited with the Vidyotini Hindi commentary by Brahmasankar Mishra & Rupalalaji Vaisya, Part-I, 5/15-16: 109.

5. Yogaratnakar, with the Vidyotini Hindi commentary by Vaidya Lakshmi pati shastri, Chukhamba prakashan, Varanasi, Nitya pravritti prakara 3-4, P.55.
6. Jaybhaye S, Kendre M. Awakening on Brahma Muhurta and its utility for healthy and blissful life in current era: a review. *Int Ayurvedic Med J* [Internet]. 2020 [cited 2025 Sep 19];8(9):1523-1528. Available from: <https://www.iamj.in/posts/images/upload/1523-1528.pdf>
7. Kohyama J. Early rising children are more active than late risers. *Neuropsychiatr Dis Treat*. 2007;3(6):959-63.
8. Randler C. Morningness–eveningness, sleep–wake variables and big five personality factors. *Pers Individ Dif*. 2011;50(2):201-6
9. Panda S. Circadian physiology of metabolism. *Science*. 2016;354(6315):1008–15.
10. Foster RG, Kreitzman L. The rhythms of life: what your body clock means to you! *Exp Physiol*. 2014;99(4):599–606.
11. Kudielka BM, Kirschbaum C. Awakening cortisol responses are influenced by health status and awakening time. *Psychoneuroendocrinology*. 2003;28(1):35–47.
12. Bjorvatn B, et al. Association between sleep disturbance and academic performance in medical students. *Sleep Med*. 2011;12(7):652–9.
13. Scheer FAJL, Hilton MF, Mantzoros CS, Shea SA. Adverse metabolic and cardiovascular consequences of circadian misalignment. *Proc Natl Acad Sci USA*. 2009;106(11):4453–8.
14. Logan RW, Sarkar DK. Circadian nature of immune function. *Mol Cell Endocrinol*. 2012;349(1):82–90.
15. Thosar SS, Butler MP, Shea SA. Role of the circadian system in cardiovascular disease. *J Clin Invest*. 2018;128(6):2157–67.

