

## Review Article on Critical Analysis of *Sandhyacharya*

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### ABSTRACT

Non-communicable diseases (NCDs) are increasingly prevalent worldwide and are largely influenced by lifestyle-related factors. *Ayurveda* emphasizes preventive healthcare through structured daily and seasonal regimens, including specific guidelines for transitional periods such as *Sandhya Kala* (dusk). Classical Ayurvedic texts, particularly *Bhavaprakasha*, describe certain activities—namely eating, studying, sleeping, sexual intercourse, and walking—as contraindicated during dusk. These guidelines are based on physiological and *Dosha* transitions occurring at this time. *Sandhya Kala* represents the junction between day and night, characterized by a shift from *Kapha* to *Vata Dosha*, changes in light exposure, hormonal fluctuations, and circadian rhythm modulation. This transition influences digestive capacity, cognitive function, hormonal balance, energy levels, and sleep physiology. Modern scientific evidence supports these observations by demonstrating alterations in melatonin secretion, cortisol levels, enzymatic activity, core body temperature, and visual strain during dusk.

This review aims to analyze the classical *Ayurvedic* prohibitions during *Sandhya Kala* and provide scientific justification for these practices in the context of contemporary physiology. Understanding and incorporating these time-specific lifestyle modifications may contribute to improved health, prevention of lifestyle disorders, and overall well-being.

### INTRODUCTION

The world has become a single entity due to globalization. Despite rigorous efforts by health agencies worldwide, the prevalence of non-communicable diseases (NCDs) continues to rise. NCDs such as cardiovascular diseases (CVDs) have become the leading causes of mortality globally. These diseases are largely lifestyle-related, and it is widely believed that adopting healthier lifestyle practices can significantly reduce their prevalence.

Lifestyle refers to an individual's way of living. *Ayurveda* describes various standardized regimens to promote a healthy lifestyle, which are to be followed daily (*Dinacharya*), seasonally (*Ritucharya*), and during specific transition periods such as evening (*Sandhyacharya*). The principles and practices of *Dinacharya* are both preventive and protective in nature.

*Sandhya* or dusk is the transitional period between day and night, characterized by partial darkness. It represents the *Sandhi* (junction) where *Vata Dosha* predominates at the end of the day and *Kapha Dosha* begins to dominate at the onset of night. This phase also marks the transition from yellow to blue light. According to Hindu mythology, *Sandhya* is considered a sacred time when divine energy enters the home.

*Acharya Charaka* and *Acharya Bhavaprakasha* have described certain activities that should be avoided during *Sandhya Kala*. According to *Bhavaprakasha*, five activities are contraindicated at dusk: **studying, eating, sleeping, sexual intercourse, and walking**.

The present study aims to analyze these prohibited regimens during *Sandhya Kala* and provide scientific justifications for why these activities are advised against at dusk.

### AHARA (EATING) AT DUSK

According to *Ayurveda*, *Ahara* (diet) is the foremost preventive medicine. Proper dietary practices help maintain health, relieve sorrow, prevent disease, and promote a happy life. Food should be consumed at the appropriate *Kaala* (time), as the benefits of diet depend greatly on timing. The ideal time for food intake is when there is no abdominal bloating, normal passage of urine and stool, absence of sour belching or stiffness, and a clear sensation of hunger.

### Effect of Transition Time

During *Sandhi* periods—whether seasonal (*Ritu Sandhi*), daily (*Yamadanshtra*), dusk, or dawn—the body requires time to acclimatize. At dusk, as dominance shifts from *Kapha* to *Vata*, *Jatharagni* (digestive fire) becomes weaker. Food consumed during this time is therefore not digested properly.

### Effect of Increased Stomach pH

Body pH and temperature play a crucial role in digestion. Studies indicate that body temperature and pH are slightly higher in the evening compared to the morning. At dusk, increased pH disrupts the acidic environment of the stomach, impairing digestion. Improper gastric acidity affects the absorption of minerals, proteins, and vitamins, reduces enzyme production, compromises detoxification processes in the liver, and weakens defence against pathogenic microorganisms.

### Enzymatic Activity

The activity of digestive enzymes such as amylase, protease, and lipase increases during the evening, leading to rapid breakdown of food.

- **Amylase** breaks down starches and complex carbohydrates into simple sugars.
- **Proteases** break down proteins and polypeptides.
- **Lipases** digest fats, oils, and triglycerides.

Salivary alpha-amylase exhibits a distinct diurnal rhythm, showing a marked decrease shortly after awakening and a gradual increase throughout the day. Digestion requires a balanced pace for proper absorption; rapid enzymatic breakdown during dusk disrupts this process, reducing nutritional benefits.

## STUDYING AT DUSK

### Effect on Concentration

Melatonin is the hormonal expression of darkness and is suppressed by light. Its peak secretion occurs between 2–4 a.m., gradually declining with approaching daylight. As evening approaches, melatonin levels begin to rise, leading to increased sleepiness. Studying during this time reduces cognitive perception and comprehension. Studies have shown that exposure to blue light at night alters melatonin secretion and negatively affects subjective sleep quality.

### Effect of Light Transition on Eye Health

Dusk marks the transition from yellow to blue light. Blue light has a shorter wavelength than yellow light, causing its focal point to fall in front of the retina rather than directly on it. Studying during this transition can result in photochemical retinal damage and ocular discomfort. Therefore, Acharyas advised against *Pathana* (studying) during evening hours.

### Physiological Changes Affecting Learning Capacity

During dusk, levels of hormones and neurotransmitters such as cortisol, dopamine, noradrenaline, and acetylcholine decrease:

- **Cortisol** supports alertness, attention, and short-term memory; reduced levels impair concentration and cognitive speed.
- **Dopamine** affects motivation, working memory, and goal-directed focus.
- **Noradrenaline** is essential for sustained attention and filtering distractions.
- **Acetylcholine** is vital for learning and memory encoding.

Additionally, reduced core body temperature at dusk leads to slower reaction times and diminished cognition. Elevated melatonin further induces sleepiness, counteracting concentration.

## MAITHUNA (SEXUAL INTERCOURSE)

Evening marks the onset of increased *Vata Dosha* as night approaches. Engaging in sexual activity during this time further aggravates *Vata*, which may result in impaired embryogenesis (*Garbh Vikruti*).

Classical Ayurvedic texts describe that vitiated *Vata* can cause:

- Improper division of *Kalala*, leading to congenital anomalies
- Affliction of fetal testes, resulting in aspermic offspring
- Obstruction of seminal pathways, leading to anaphrodisiac traits
- Combined vitiation of *Vata* and *Pitta*, causing destruction of reproductive organs and eviration

Modern studies indicate that after 6 p.m., testosterone levels in men begin to decline, while female sex hormones gradually rise. This hormonal imbalance may influence fetal development, particularly structures derived from *Pitrija Bhava*.

## WALKING AT DUSK

### Low Energy Levels

Dusk significantly influences energy levels due to reduced light exposure and the body's natural circadian response. Increased melatonin secretion induces relaxation and fatigue, preparing the body for rest. Walking during this time further aggravates *Vata Dosha*, which is traditionally associated with fear, instability, and exhaustion.

## SLEEP (NIDRA) AT DUSK

Melatonin regulates the circadian rhythm and is stimulated by darkness. Sleeping during *Sandhya Kala* causes melatonin levels to rise prematurely, leading to circadian rhythm imbalance. Hence, classical texts prohibit sleep during this period. At dusk, the body is transitioning toward rest—melatonin rises while cortisol, body temperature, and alertness-promoting neurotransmitters decline. Although sleep onset may be easy, the circadian sleep signal is not fully aligned, potentially leading to advanced sleep phase disorder, reduced REM sleep, circadian misalignment, and daytime sleepiness.

According to Hindu mythology, *Sandhya* is a sacred period when divine energy enters the home, making sleep during this time spiritually contraindicated.

## Conclusion

*Acharya Bhavaprakasha* recommends engaging in spiritual practices such as prayer, mantra chanting, yoga, and positive social interaction during *Sandhya Kala*. Adopting these simple lifestyle measures as advised by Ayurvedic Acharyas can promote health, enhance well-being, and aid in the prevention of various diseases

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