Dinacharya: Ancient Wisdom for Modern Wellness - A Narrative Review

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**Abstract:** 

Dinacharya, the Ayurvedic concept of a daily routine, offers a profound framework for maintaining health and preventing disease by aligning individual rhythms with natural cycles. This narrative review, delves into the historical foundations of Dinacharya as described in classical Ayurvedic texts such as the Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya. It further explores the scientific validation of various Dinacharya practices in the contemporary era, examining their physiological and psychological benefits. The review highlights the relevance of this ancient wisdom in addressing modern lifestyle diseases, emphasizing its potential as a holistic approach to wellness. By synthesizing traditional knowledge with modern scientific understanding, this article aims to provide a comprehensive overview of Dinacharya's enduring significance and its practical applicability in fostering optimal health in the 21st century.

Key words: Ayurveda, Dinacharya, Doshas,

**Introduction:** 

Ayurveda, often referred to as the "science of life," is an ancient system of medicine with roots in the Indian subcontinent, dating back over 5,000 years. Unlike conventional medicine, which often focuses on disease treatment, Ayurveda places a strong emphasis on disease prevention and the promotion of holistic well-being. At the heart of this preventive approach lies the concept of Dinacharya, a Sanskrit term derived from 'Dina' meaning 'daily' and 'Charya' meaning 'conduct' or 'routine' [1]. Thus, Dinacharya translates to a daily regimen or routine designed to harmonize an individual's physiological and psychological functions with the natural rhythms of the day and night. This alignment is believed to be crucial for maintaining the balance of the three fundamental bio-energies, or doshas (Vata, Pitta, and Kapha) which govern all bodily processes and determine an individual's unique constitution. When these doshas are in equilibrium, health flourishes; when they are imbalanced, disease manifests.

In ancient India, *Dinacharya* was not merely a set of recommendations but an ingrained way of life. From the moment of waking at *Brahma Muhurta* (the auspicious time before dawn) until retiring for the night, every activity, from personal hygiene and dietary practices to physical exercise and mental contemplation, was meticulously structured. This comprehensive daily routine was designed to cleanse the body, invigorate the mind, and nourish the spirit, thereby fostering a state of optimal health and longevity. The classical *Ayurvedic* texts, including the *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, extensively detail these practices, underscoring their importance for both healthy individuals (*Swastha*) and those seeking to recover from illness (*Atura*) [2]. These ancient treatises provide a profound understanding of how daily habits can profoundly impact one's physical, mental, and spiritual well-being.

The contemporary world, characterized by rapid technological advancements, urbanization, and demanding work schedules, has inadvertently led to a significant departure from natural rhythms. Modern lifestyles often involve irregular sleep patterns, sedentary habits, consumption of processed foods, and chronic exposure to stress. This deviation from a natural, balanced routine has contributed to a global surge in non-communicable diseases (NCDs) such as obesity, type 2 diabetes, cardiovascular diseases, and various mental health disorders [3]. These lifestyle-related ailments are often exacerbated by a disconnect from the body's innate biological clock, known as the circadian rhythm. In this context, the ancient wisdom of *Dinacharya* emerges as a highly relevant and potent solution. It offers a time-tested, holistic framework that emphasizes prevention, self-care, and the re-establishment of harmony between the individual and their environment.

This narrative review aims to provide a comprehensive exploration of *Dinacharya*, bridging the gap between ancient *Ayurvedic* principles and contemporary scientific understanding. We will first delve into the foundational texts of *Ayurveda* to delineate the traditional practices and philosophical basis of *Dinacharya*. Subsequently, we will explore the modern scientific validation of these practices, drawing upon recent research in fields such as chronobiology, neuroscience, and lifestyle medicine. By synthesizing these diverse perspectives, this review seeks to highlight the enduring significance of *Dinacharya* as a powerful tool for promoting health and well-being in the 21<sup>st</sup> century, offering practical insights for individuals and healthcare professionals alike. The ultimate goal is to demonstrate how this ancient daily

regimen can serve as a blueprint for a healthier, more balanced, and disease-free life in an increasingly complex and demanding world.

### **Methods:**

This narrative review was conducted through a comprehensive and systematic search of literature pertaining to *Dinacharya*, both from classical *Ayurvedic* texts and contemporary scientific research. The methodology employed aimed to synthesize information from diverse sources to provide a holistic understanding of the subject, addressing its historical context, traditional practices, and modern scientific validation. The following steps were undertaken:

### **Literature Search and Selection:**

- **1. Classical** *Ayurvedic* **Texts:** The foundational principles and practices of *Dinacharya* were primarily extracted from the *Brihatrayi*, the three major treatises of *Ayurveda*: the *Charaka Samhita*, the *Sushruta Samhita*, and the *Ashtanga Hridaya*. These texts, considered the authoritative sources of *Ayurvedic* knowledge, provide detailed descriptions of the daily regimen, its components, and their intended benefits. Specific chapters and verses related to *Dinacharya* (e.g., Sutra Sthana, Chapter 2 of *Ashtanga Hridaya*) were thoroughly reviewed.
- 2. Contemporary Scientific Literature: A comprehensive search was performed across various electronic databases, including PubMed, Google Scholar, and ResearchGate. Keywords used for the search included, but were not limited to: "Dinacharya," "Ayurvedic daily routine," "circadian rhythm Ayurveda," "oil pulling benefits," "tongue scraping research," "Nasya therapy scientific evidence," "Abhyanga massage benefits," "yoga and meditation health," and "early morning wake up health benefits." The search was not restricted by publication date to ensure a comprehensive historical and contemporary perspective. Inclusion criteria for scientific literature focused on studies, reviews, and meta-analyses that investigated the physiological, psychological, or clinical effects of specific Dinacharya practices or the broader concept of daily routines and circadian rhythms.

**Data Extraction and Synthesis:** Information pertinent to *Dinacharya* was systematically extracted from both classical and modern sources. From *Ayurvedic* texts, details regarding the timing, methods, and purported benefits of each practice were noted. From scientific literature, data on study design, participant demographics, interventions, outcome measures, and key findings were extracted. Special attention was paid to studies that provided empirical evidence supporting the health claims associated with *Dinacharya* practices. The extracted information

was then synthesized thematically, categorizing practices and their benefits, and identifying correlations between ancient wisdom and modern scientific discoveries. This narrative synthesis allowed for a comprehensive overview of *Dinacharya*'s principles and its applicability in both historical and contemporary contexts.

This methodical approach ensures a thorough and well-supported narrative review, aiming to contribute to a deeper understanding of *Dinacharya*'s role in promoting holistic health and well-being.

#### **Results:**

The comprehensive review of classical *Ayurvedic* texts and contemporary scientific literature reveals a meticulously structured daily routine in *Dinacharya*, designed to optimize physical, mental, and spiritual health. The practices are strategically timed to align with the natural cycles of the day, particularly the shifts in *dosha* dominance throughout the 24-hour period. The results section will detail these practices and present the scientific evidence supporting their efficacy.

The Ayurvedic Daily Cycle and Dosha Dominance – Ayurveda posits that the day is divided into specific periods governed by the three doshas: Vata, Pitta, and Kapha.

Understanding these cycles is crucial for appreciating the rationale behind *Dinacharya* practices:

- 1. *Vata Dosha* Dominance (2:00 AM 6:00 AM and 2:00 PM 6:00 PM): Characterized by lightness, movement, and subtle energy. The early morning *Vata* period is considered ideal for spiritual practices, meditation, and elimination.
- 2. *Pitta Dosha* Dominance (10:00 AM 2:00 PM and 10:00 PM 2:00 AM): Characterized by transformation, metabolism, and digestion. The midday *Pitta* period is when digestive fire (agni) is strongest, making it ideal for the main meal. The late-night *Pitta* period is associated with metabolic processes during sleep.
- 3. *Kapha Dosha* Dominance (6:00 AM 10:00 AM and 6:00 PM 10:00 PM): Characterized by heaviness, stability, and structure. The morning *Kapha* period is suitable for physical activity and cleansing routines, while the evening *Kapha* period promotes relaxation and sleep.

*Dinacharya* practices are designed to work in harmony with these natural rhythms, enhancing the body's innate ability to maintain balance and prevent disease.

# Dinacharya Practices and Their Benefits -

1. Waking Up Early (*Brahma Muhurta Jagaran*) – *Ayurveda* strongly advocates waking up during *Brahma Muhurta*, approximately 96 minutes before sunrise, or between 4:00 AM and 6:00 AM [2,3]. This period is considered auspicious due to the prevalence of *Sattva* (purity, clarity) qualities in the atmosphere, making it ideal for meditation, self-reflection, and intellectual pursuits. It is believed to enhance mental clarity, promote a sense of calm, and improve overall well-being. The quietude of this hour is thought to facilitate deeper introspection and connection with one's inner self, setting a positive tone for the day ahead. Furthermore, the early morning air, often described as fresh and invigorating, is considered beneficial for respiratory health and overall vitality.

Modern research supports the benefits of early rising, particularly its positive impact on mental health and cognitive function. Studies indicate that individuals who wake up earlier tend to experience lower levels of depression and stress [4], [5]. Early risers often report improved mood, better concentration, and enhanced productivity [6], [7]. This can be attributed to aligning with the natural light-dark cycle, which regulates the body's circadian rhythm. Exposure to early morning light helps suppress melatonin production and promotes alertness, leading to a more stable sleep-wake cycle [8]. This synchronization with the natural light cycle is crucial for maintaining a healthy circadian rhythm, which in turn influences various physiological processes, including hormone regulation, metabolism, and immune function. Disruptions to this rhythm, common in modern society due to artificial lighting and irregular schedules, have been linked to a myriad of health problems, including metabolic disorders, cardiovascular disease, and mental health issues [9], [10]. The quiet and calm environment of the early morning, as highlighted in Ayurvedic texts, can indeed facilitate focused work and reduce distractions, contributing to improved cognitive performance and reduced mental fatigue. The practice of waking up early also provides dedicated time for self-care activities before the demands of the day begin, fostering a sense of control and reducing feelings of being rushed or overwhelmed.

**2. Elimination** (*Malotsarga* and *Ushapana*) – The first act upon waking is to attend to the natural urges of elimination (urination and defecation). This practice, known as *Malotsarga*, is crucial for expelling accumulated waste products from the body and preventing the reabsorption of toxins [2], [3]. *Ayurveda* emphasizes the importance of regular and complete bowel movements for maintaining digestive health and overall purity. The suppression of natural urges

(vega dharana) is considered a significant cause of disease in Ayurveda, leading to imbalances in Vata dosha and various physical discomforts. Following this, Ushapana, the practice of drinking a glass of lukewarm or room temperature water, is recommended. This helps to cleanse the internal channels (srotas), stimulate peristalsis, and facilitate further elimination. The water is believed to flush out toxins that have accumulated overnight and prepare the digestive system for the day's intake.

The importance of regular bowel movements for digestive health is well-established in modern medicine. Chronic constipation can lead to various health issues, including discomfort, bloating, and potentially the reabsorption of toxins. A healthy gut microbiome, which is crucial for overall health, relies on regular elimination of waste products. Drinking water upon waking can indeed stimulate bowel movements, aiding in the natural detoxification process by promoting kidney function and flushing out metabolic byproducts. While specific scientific studies directly on Ushapana as a standalone practice are limited, the general benefits of adequate hydration for digestive function, kidney health, and overall metabolic processes are widely recognized. Proper hydration supports the body's natural elimination pathways, contributing to a healthy gut microbiome and preventing conditions like hemorrhoids, urinary tract infections, and obesity-related issues, as suggested in Ayurvedic texts [3]. The act of drinking water also helps to rehydrate the body after a night's sleep, improving cellular function and energy levels. The Ayurvedic emphasis on responding to natural urges without suppression aligns with modern physiological understanding of maintaining bodily homeostasis and preventing the accumulation of waste products that can lead to systemic inflammation and disease.

# 3. Oral Hygiene (Dantadhavana, Jihva Nirlekhana, Gandusha/Kavala):

*Dinacharya* places significant emphasis on oral hygiene, recognizing its profound connection to overall health. These practices are not merely about cleanliness but are considered therapeutic interventions that impact the entire body. Practices include:

**Dantadhavana** (Teeth Brushing): Traditionally, twigs from specific trees (e.g., Neem, Babul, Khadira) with astringent, pungent, or bitter tastes were used for their medicinal properties to clean teeth and gums [2]. These natural toothbrushes are believed to possess antimicrobial, anti-inflammatory, and strengthening properties. The act of chewing the twig also provides a gentle massage to the gums, improving circulation and promoting gum health. This practice aims to

remove food particles, prevent dental issues, and improve taste perception by stimulating the taste buds.

Jihva Nirlekhana (Tongue Scraping): Using a tongue scraper (traditionally made of copper, gold, silver, or stainless steel) to gently scrape the white coating that accumulates on the tongue overnight [3]. This coating, known as *ama* (toxins), is believed to be a byproduct of digestion and metabolic processes. Removing it is thought to eliminate toxins, improve taste perception by exposing the taste buds, and prevent bad breath (halitosis). The practice is also believed to stimulate internal organs through reflexology points on the tongue.

Gandusha/Kavala (Oil Pulling/Gargling): These practices involve holding medicated oil (e.g., sesame or coconut oil) or herbal decoctions in the mouth for a period (Gandusha - holding without swishing) or gargling with them (Kavala - swishing) [3]. This practice is thought to strengthen teeth and gums, remove toxins, improve voice quality, and prevent various oral diseases. The oil is believed to draw out toxins from the oral cavity, while the mechanical action of swishing or gargling helps to cleanse the mouth thoroughly.

Modern dentistry confirms the importance of oral hygiene for preventing dental caries, gingivitis, and periodontitis. Scientific research has provided evidence for the benefits of these *Ayurvedic* oral practices:

**Tongue Scraping:** Studies have consistently shown that mechanical tongue cleaning is highly effective in reducing oral malodor (bad breath) and significantly decreasing the bacterial load on the tongue [11,12]. The removal of the tongue coating not only improves breath but also enhances taste perception by uncovering the taste buds, allowing for a more accurate and enjoyable experience of food [13]. This can indirectly contribute to better digestion as taste plays a crucial role in initiating the digestive process.

Oil Pulling (Gandusha/Kavala): While some studies show promising results, the scientific community has varying opinions on the extent of oil pulling's benefits, and it is not universally endorsed as a primary oral hygiene method. However, a meta-analysis indicated that oil pulling can reduce total oral bacterial counts, plaque, and gingival scores, suggesting its potential as an adjunct therapy [14]. Other research suggests it may help reduce inflammation of the gums (gingivitis) and decrease harmful bacteria like Streptococcus mutans, a primary contributor to tooth decay [15,16]. The proposed mechanisms include saponification (soap-like action) of the oil, which can cleanse the oral cavity, and the antimicrobial properties of certain oils like coconut

oil. It is important to note that oil pulling is not a substitute for regular brushing and flossing but can be a complementary practice to enhance oral health [17]. Further large-scale, well-controlled clinical trials are needed to fully elucidate its long-term effects and optimal application.

**4. Nasal Cleansing (Nasya)** – *Nasya* involves the instillation of medicated oils (like *Anu Thailam*) or herbal decoctions into the nostrils [1,2]. *Ayurveda* considers the nose as the gateway to the head (*Nasa hi Shiraso Dwaram*), and *Nasya* is believed to cleanse the nasal passages, lubricate the mucous membranes, and improve the senses (especially smell and vision). It is also thought to alleviate conditions related to the head and neck, such as headaches, sinusitis, allergies, and even certain neurological disorders. The practice is believed to balance the *Prana Vayu* (a subtype of *Vata dosha* governing respiration and nervous system functions) and clear accumulated *Kapha* from the head region, thereby promoting mental clarity and emotional balance. Regular *Nasya* is also recommended for maintaining the health of the hair, skin, and throat.

Research on *Nasya* therapy, though still emerging, suggests its potential benefits, particularly in conditions affecting the upper respiratory tract and head. Studies have indicated that *Nasya* can be effective in reducing symptoms of sinusitis, improving nasal congestion, and alleviating headaches, including migraines [18,19,20]. The practice is thought to work by clearing blockages in the nasal passages, promoting better airflow, and potentially influencing neurological pathways through the olfactory bulb and trigeminal nerve. Some studies also suggest its role in improving mental clarity and overall well-being by affecting the brain through the nasal route, possibly by influencing the lymphatic drainage of the brain (glymphatic system) [21]. The anti-inflammatory and antimicrobial properties of the herbal oils used in Nasya may also contribute to its therapeutic effects. However, more rigorous clinical trials with larger sample sizes and standardized protocols are needed to fully establish its efficacy, safety, and mechanisms of action. It is crucial that *Nasya* be performed under the guidance of a qualified *Ayurvedic* practitioner, especially when using medicated oils, to ensure proper technique and avoid potential adverse effects.

**5. Self-Massage (Abhyanga)** – Abhyanga a daily self-massage with warm oil (typically sesame, coconut, or specific herbal oils tailored to one's *dosha*), is a cornerstone of *Dinacharya* and is considered a vital practice for maintaining overall health and longevity [2,3]. It is performed

from head to toe, with particular attention to the scalp, ears, and feet. *Abhyanga* is believed to nourish the skin, calm the nervous system, improve circulation, lubricate joints, reduce fatigue, and promote longevity. It is also thought to balance the *doshas*, enhance the body's natural detoxification processes, and improve the quality of *dhatus* (tissues). The practice is said to strengthen the body's resilience against the effects of aging and environmental stressors, promoting a sense of groundedness and well-being. The choice of oil is crucial, with sesame oil often recommended for *Vata*, coconut or sunflower oil for *Pitta*, and lighter oils like mustard for *Kapha*.

Modern research has begun to validate many of the traditional claims associated with *Abhyanga*, particularly its effects on stress, circulation, and skin health. Studies have shown that oil massage can significantly reduce subjective stress levels and heart rate, indicating its calming effect on the autonomic nervous system [22], [23]. This is likely due to the activation of parasympathetic nervous system, leading to relaxation and reduced cortisol levels. Regular *Abhyanga* has been linked to improved sleep quality, enhanced skin health (hydration, elasticity, and barrier function), and a potential boost in the immune system [24], [25]. The mechanical action of massage, combined with the trans-dermal absorption of the oil's therapeutic properties, can improve blood circulation, reduce muscle stiffness, alleviate pain, and promote relaxation. Furthermore, the practice can contribute to overall well-being by fostering a sense of self-care, mindfulness, and body awareness [26]. The tactile stimulation also has psychological benefits, promoting feelings of comfort, security, and self-love. While more research is needed to fully understand all the physiological mechanisms, the existing evidence strongly supports *Abhyanga* as a beneficial practice for stress management and general well-being.

**6. Exercise** (*Vyayama*): *Vyayama*, or regular physical exercise, is an integral part of *Dinacharya. Ayurveda* recommends exercising to half of one's capacity (*ardha shakti*), indicated by the appearance of sweat on the forehead, armpits, and spine, and slight dryness in the mouth. The type and intensity of exercise should be tailored to an individual's *dosha* constitution, age, and the prevailing season. For instance, *Vata* individuals might benefit from gentle, grounding exercises like yoga or walking, while *Kapha* individuals might require more vigorous activities to counteract their inherent heaviness. Vyayama is believed to improve strength, endurance, and flexibility, enhance digestion (*agni*), reduce fat, and promote a sense of lightness and joy. It is

also considered essential for maintaining proper circulation, strengthening the body's tissues (dhatus), and preventing stagnation of *ama* (toxins).

The benefits of regular physical exercise are extensively documented in modern science and are a cornerstone of public health recommendations worldwide. Exercise is crucial for cardiovascular health, weight management, muscle strength, bone density, and metabolic health. It is a powerful tool for stress reduction, mood improvement, and cognitive enhancement, largely due to the release of endorphins and neurotransmitters. Physical activity helps regulate metabolism, improves insulin sensitivity, and strengthens the immune system, thereby reducing the risk of chronic diseases such as type 2 diabetes, heart disease, and certain cancers. The Ayurvedic emphasis on exercising to half capacity aligns with modern recommendations for moderate-intensity exercise, which provides significant health benefits without over-stressing the body or leading to burnout. Practices like yoga, which combine physical postures with breathing exercises (pranayama) and meditation, are particularly beneficial for both physical and mental well-being, as supported by numerous studies demonstrating their efficacy in reducing stress, improving flexibility, and enhancing overall quality of life [27], [28]. The concept of ardha shakti also highlights Ayurveda's nuanced understanding of individual variations in physical capacity and the importance of avoiding overexertion, which can lead to depletion and imbalance.

7. Bathing (Snana) – Snana, or daily bathing, is considered a purifying and refreshing practice in *Dinacharya* [2], [3]. It is believed to cleanse the body, remove sweat, dirt, and impurities, invigorate the senses, and promote a sense of enthusiasm and freshness. *Ayurveda* recommends using warm water for the body and cooler water for the head and eyes to avoid imbalances. The use of natural cleansers, such as herbal powders (*ubtan*), is also encouraged for their therapeutic properties. Bathing is considered a sacred ritual that not only cleanses the physical body but also purifies the mind and spirit, promoting clarity and positive energy. It is often performed after *Abhyanga* and *Vyayama* to wash off the oil and sweat.

While the act of bathing is universally recognized for basic hygiene, its broader physiological and psychological benefits are also acknowledged in modern contexts. A warm bath can promote relaxation, reduce muscle tension, and improve circulation, particularly to the skin. The sensory experience of bathing, including the warmth of the water and the aroma of natural cleansers, can have a calming effect on the mind, contributing to stress reduction and

improved mood. From a modern perspective, bathing helps maintain skin health by removing dirt, oil, dead skin cells, and microorganisms, thereby preventing skin infections, irritations, and body odor. The invigorating effect described in *Ayurveda* aligns with the psychological uplift and sense of renewal many individuals experience after a refreshing shower or bath, which can enhance alertness and readiness for daily activities. Furthermore, the practice of bathing can be a mindful activity, allowing for a brief period of self-reflection and detachment from daily stressors.

8. Diet (*Ahara*) and Sleep (*Nidra*) – *Dinacharya* extends to dietary practices (*Ahara*) and sleep (Nidra), recognizing their profound and interconnected impact on health. *Ayurveda* emphasizes the concept of *ahara niyama* (dietary rules) and *nidra niyama* (sleep rules) for maintaining optimal health. Key recommendations include:

Ahara (Diet): Ayurveda recommends consuming the main meal (lunch) when the digestive fire (agni) is strongest, which typically occurs during the midday Pitta time (10:00 AM - 2:00 PM). Dinner should be lighter and consumed several hours before bedtime to allow for proper digestion before sleep. The diet should be balanced, incorporating all six tastes (sweet, sour, salty, pungent, bitter, astringent), and tailored to an individual's dosha constitution and the season. Mindful eating, including eating in a calm environment and chewing food thoroughly, is also emphasized to optimize digestion and nutrient absorption.

Nidra (Sleep): Adequate and timely sleep is considered one of the three pillars of life (Trayopastambha), alongside Ahara (food) and Brahmacharya (controlled energy/celibacy), essential for physical and mental restoration. Going to bed early (ideally before 10:00 PM, during the Kapha period) and waking up early (during Brahma Muhurta) are key recommendations for maintaining a healthy sleep-wake cycle. Sleep is viewed as a natural healing process that allows the body to repair, rejuvenate, and consolidate memories. Insufficient or disturbed sleep is considered a major cause of dosha imbalance and disease.

The importance of a balanced diet and sufficient sleep is fundamental to modern health science, with extensive research supporting *Ayurvedic* principles. Research consistently demonstrates that consuming a nutritious diet, rich in whole foods, fruits, vegetables, and lean proteins, is crucial for preventing chronic diseases, maintaining a healthy weight, and supporting optimal bodily functions. The concept of timing meals, particularly making lunch the largest meal, aligns with modern chrononutrition research, which suggests that eating in sync with the

body's circadian rhythm can improve metabolic health and weight management [29]. Eating a lighter dinner earlier in the evening allows for better digestion and can prevent issues like acid reflux and disturbed sleep.

Similarly, extensive scientific evidence highlights the critical role of sleep in physical repair, cognitive function, emotional regulation, and immune system strength. Disruptions to sleep patterns and irregular eating habits are strongly linked to various health problems, including metabolic disorders (e.g., insulin resistance, type 2 diabetes), cardiovascular disease, obesity, and mental health issues (e.g., anxiety, depression) [9,10]. The *Ayurvedic* emphasis on aligning meals and sleep with natural circadian rhythms is strongly supported by chronobiology, which studies how biological rhythms influence health and disease [29,30]. Maintaining a consistent sleep schedule, creating a conducive sleep environment, and practicing relaxation techniques before bed can significantly improve sleep quality, leading to improved metabolic health, cognitive performance, and overall well-being. The concept of *nidra* as a restorative process is fully embraced by modern sleep science, which recognizes the profound impact of sleep deprivation on virtually every physiological system.

### 9. Other Practices –

*Dinacharya* also includes several other practices that contribute to holistic well-being, though some may have less extensive modern scientific research compared to the core components.

*Udvarthana* (Powder Massage): This involves rubbing the body with dry herbal powders, often mixed with a small amount of oil. It is traditionally used to reduce *Kapha* and Ama, improve circulation, exfoliate the skin, reduce cellulite, and enhance skin complexion. From a modern perspective, the mechanical action provides lymphatic drainage, exfoliation, and stimulation of subcutaneous fat, which can contribute to skin health and appearance.

Anjana (Collyrium Application): The application of a special collyrium (kajal) to the eyes [1,2]. It is believed to cleanse the eyes, improve vision, and protect them from dust, pollution, and strain. While traditional Anjana formulations may have antimicrobial properties, modern scientific validation for its broad health claims is limited, and caution is advised regarding commercial products due to potential contaminants.

*Tambula Sevana* (Chewing Betel Leaf): Chewing betel leaf with certain additives after meals. Traditionally, it is believed to aid digestion, freshen breath, and act as a mild stimulant. Modern research on betel quid chewing, however, has raised significant health concerns due to its

association with oral cancer and other adverse effects, particularly when combined with tobacco. Therefore, this traditional practice requires careful consideration and is generally not recommended in its traditional form due to health risks.

*Karna Purana* (Ear Oiling): Instilling warm oil into the ears. This practice is believed to soothe the nervous system, prevent ear infections, improve hearing, and alleviate conditions like tinnitus and vertigo, particularly those associated with *Vata* imbalance. While direct scientific evidence is limited, the practice may help lubricate the ear canal and provide a calming effect.

**Dhumapana:** Inhaling medicated smoke from specific herbs. This practice is traditionally used for respiratory conditions, to clear sinuses, and to calm the mind. However, given modern understanding of the harmful effects of smoke inhalation on the respiratory system, this practice is generally not recommended without strict medical supervision and careful consideration of potential risks. While these practices are integral to the comprehensive *Dinacharya* framework, their modern applicability and safety require careful evaluation, especially for practices involving inhalation or substances with known health risks. The core principles of *Dinacharya*, however, remain universally beneficial and adaptable.

### **Discussion:**

Dinacharya, an ancient Ayurvedic concept, offers a profound and enduringly relevant holistic and preventive approach to health that strongly resonates with modern scientific understanding. This review highlights how Dinacharya's principles and practices, meticulously detailed in classical texts, align daily routines with natural biological rhythms, particularly the circadian clock. This alignment predates modern chronobiology by millennia, showcasing Ayurveda's deep observational wisdom.

For instance, the recommendation to wake during *Brahma Muhurta* is supported by research on early rising's positive impact on mental health, productivity, and stress hormone regulation. *Ayurvedic* oral hygiene practices like tongue scraping and oil pulling parallel modern dental research, proving effective in reducing oral bacteria, improving breath, and enhancing taste. Similarly, *Abhyanga* (self-massage) is increasingly recognized in integrative medicine for stress reduction, improved circulation, and skin health. *Ayurveda* has described the *Traya Upastambha* (three supporting pillars) of human body, viz., *Ahara*, *Nidra*, and *Brahmacharya*.[31]

A striking convergence lies in the understanding of circadian rhythms. *Ayurveda's* division of the day into dosha-governed periods provides a framework for optimal activity timing, from

digestion to sleep. Modern chronobiology elucidates the intricate molecular mechanisms of these 24-hour cycles, demonstrating their profound influence on metabolism, hormone secretion, immune function, and overall health. Disruptions to these rhythms, common in modern lifestyles, are scientifically linked to chronic diseases like metabolic syndrome, cardiovascular disorders, and mental health conditions. *Dinacharya*, therefore, offers a practical means to re-establish and maintain healthy circadian rhythms, mitigating risks associated with modern lifestyle choices. The *Ayurvedic* concept of *Agni* (digestive fire) and its daily fluctuations, which dictate optimal meal times, directly correlates with modern understanding of metabolic efficiency and nutrient assimilation in relation to circadian timing.

The global burden of lifestyle diseases underscores the urgent need for effective preventive strategies. *Dinacharya's* core tenets (regular physical activity, mindful eating, adequate sleep, and stress management) directly address the root causes of these ailments. By promoting consistent routines, *Dinacharya* encourages discipline and self-care, empowering individuals to actively manage their health. For example, *Ayurvedic* recommendations for *Vyayama* (exercise) to half capacity align with current guidelines for moderate-intensity physical activity, crucial for preventing obesity and cardiovascular disease. The emphasis on a balanced diet, with the main meal at midday, optimizes digestion and nutrient assimilation, a principle supported by modern nutritional science.

Moreover, *Dinacharya's* holistic approach extends beyond physical health to mental and emotional well-being. Practices like meditation during *Brahma Muhurta*, the calming effects of *Abhyanga*, and the overall routine structure contribute to stress reduction and mental clarity. In an era of high anxiety and depression, *Dinacharya's* contemplative and self-nurturing aspects offer valuable tools for fostering resilience and emotional balance. Integrating these practices can serve as a powerful complementary approach to conventional medical interventions for lifestyle-related disorders. The consistent daily rhythm provided by *Dinacharya* can also reduce decision fatigue, conserving mental energy for complex tasks and creative pursuits.

# **Limitations and Future Directions:**

Research on *Dinacharya* practices, particularly less common ones, is nascent, often limited to small-scale, observational studies lacking rigorous controls or focusing on isolated practices rather than their synergistic effects. Future research should prioritize robust randomized controlled trials to establish causality, explore adaptability to diverse cultural contexts and

modern schedules, conduct longitudinal studies on long-term health impacts, investigate specific biochemical pathways, and assess the potential for integration into public health initiatives and preventive medicine, including cost-effectiveness.

### **Conclusion:**

Dinacharya, the ancient Ayurvedic daily routine, stands as a timeless testament to the profound connection between human well-being and natural rhythms. In Ayurveda health is a state where the dosha, agni, dhatu, mala, all the physiological process are in homeostatic state and soul, sense organ and mind are in a state of total wellbeing.[32] This narrative review has underscored its historical significance as a cornerstone of Ayurvedic preventive medicine and highlighted its remarkable relevance in addressing the pervasive health challenges of the modern era. The convergence of ancient wisdom, meticulously documented in classical texts, with contemporary scientific validation provides a compelling case for the efficacy of Dinacharya practices.

By embracing a structured daily regimen that includes early rising, proper elimination, comprehensive oral hygiene, self-massage, regular exercise, mindful eating, and adequate sleep, individuals can proactively cultivate physical vitality, mental clarity, and emotional balance. *Dinacharya* offers a powerful antidote to the disruptive influences of modern lifestyles, serving as a practical blueprint for re-establishing harmony with the body's innate biological clock. As the global community grapples with the escalating burden of lifestyle diseases, the holistic and preventive framework of *Dinacharya* presents a valuable, accessible, and sustainable pathway toward optimal health and longevity. Integrating these time-tested practices into daily life, supported by ongoing scientific inquiry, holds immense promise for fostering a healthier, more conscious, and disease-free future for all.

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