

CONCEPT OF DINACHARYA IN THE PREVENTION OF LIFESTYLE DISORDERS: A COMPREHENSIVE REVIEW

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ABSTRACT

Background: The global rise in lifestyle disorders — including obesity, type 2 diabetes mellitus, hypertension, cardiovascular disease, metabolic syndrome, anxiety, depression, sleep disorders, polycystic ovarian syndrome (PCOS), and non-alcoholic fatty liver disease (NAFLD) — reflects a widening mismatch between contemporary living patterns and the body's endogenous biological rhythms. Ayurveda addresses this mismatch through Dinacharya, a codified daily regimen described across the classical Samhitas that regulates waking, elimination, hygiene, exercise, diet, and sleep in step with the diurnal cycle.

Objective: To critically synthesise classical Ayurvedic descriptions of Dinacharya with contemporary chronobiological and lifestyle-medicine evidence, and to evaluate the plausibility of Dinacharya as a preventive framework for lifestyle disorders.

Review Methodology: A narrative review was conducted using PubMed, Scopus, Google Scholar, the AYUSH Research Portal, and DHARA, supplemented by primary classical sources (Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha, Bhavaprakasha). Search terms combined "Dinacharya", "circadian rhythm", "chronobiology", "chrononutrition", and individual lifestyle-disorder terms, restricted largely to literature from 2015–2026.

Key Findings: Multiple recent narrative and applied reviews converge on the observation that specific Dinacharya practices — waking during Brahma Muhurta, oral hygiene procedures, Abhyanga (oil massage), Vyayama (structured exercise), and time-bound meals and sleep — correspond to identifiable chronobiological mechanisms, including cortisol awakening response, suprachiasmatic nucleus (SCN) entrainment, peripheral clock synchronisation through feeding, and melatonin-mediated sleep regulation. Emerging chrononutrition literature independently supports the metabolic value of early, time-restricted, and regular meal timing, echoing the meal-timing principles embedded in Dinacharya.

Conclusion: Dinacharya offers a biologically plausible, low-cost, and culturally accessible preventive framework whose individual components show convergence with modern circadian and lifestyle-medicine science, although direct, adequately powered clinical trials evaluating Dinacharya as an integrated protocol remain limited.

Practical Implications: Structured integration of Dinacharya counselling into preventive Ayurvedic and integrative primary-care practice may help address the rising burden of lifestyle disorders, provided it is paired with further mechanistic and outcome-based research.

Keywords: Dinacharya; Circadian rhythm; Chronobiology; Lifestyle disorders; Preventive Ayurveda; Chrononutrition; Metabolic syndrome; Swasthavritta

1. INTRODUCTION

Lifestyle disorders — a cluster of largely preventable non-communicable diseases (NCDs) driven by sedentary behaviour, irregular sleep, disordered eating patterns, and chronic stress — now constitute the dominant global disease burden. Recent Global Burden of Disease analyses estimate that NCDs accounted for approximately 43.8 million deaths and 1.73 billion disability-adjusted life years in 2021, with cardiovascular disease, diabetes mellitus, and their metabolic antecedents forming the largest share of this burden.[1] Obesity alone is projected to affect one in four adults worldwide by 2035, and elevated body-mass index is now implicated not only in cardiometabolic disease but also in hepatic, renal, musculoskeletal, and neuropsychiatric morbidity.[2,3]

A substantial part of this burden is attributable not to any single pathological insult but to chronic misalignment between an individual's behavioural schedule and their endogenous circadian biology — a state increasingly termed "chronodisruption". Irregular light exposure, late and inconsistent meal timing, disrupted sleep-wake schedules, and reduced physical activity desynchronise the central suprachiasmatic nucleus (SCN) clock from peripheral clocks in the liver, adipose tissue, and pancreas, producing measurable impairments in glucose tolerance, lipid handling, and mood regulation.[4,5] This has renewed international scientific interest in chronobiology and chrononutrition as levers for NCD prevention, exemplified by the 2023 NHLBI-sponsored Chrononutrition Workshop and the subsequent 2024 report in the *Journal of the American Heart Association*. [5]

Long before the language of chronobiology existed, Ayurveda articulated a comparable principle through Dinacharya (dina = day; acharya = regimen/conduct) — a structured sequence of daily practices spanning the pre-dawn waking hour (Brahma Muhurta), elimination, oral and ocular hygiene, oil massage (Abhyanga), physical exercise (Vyayama), bathing, meal timing, and sleep hygiene (Ratricharya). Dinacharya is grounded in the Ayurvedic premise of Swasthasya Swasthya Rakshanam — the preservation of health in the healthy — and in the doctrine that Vata, Pitta, and Kapha doshas exhibit predictable diurnal periods of dominance that structured routine can be timed to support. [6,7]

The global relevance of this convergence is considerable. Lifestyle disorders are no longer confined to high-income countries; India itself carries a rapidly rising burden of diabetes, hypertension, obesity, and non-alcoholic fatty liver disease (NAFLD), driven by urbanisation, occupational sedentarism, and dietary transition. Within this context, a

scientifically articulated, low-cost, self-administrable preventive framework such as Dinacharya carries substantial public-health potential — provided its individual components can be shown to correspond with, and be supported by, contemporary biomedical evidence.

Research Gap: While numerous narrative reviews have described individual Dinacharya practices and their proposed physiological correlates, few have systematically mapped the full Dinacharya sequence against the specific disorders it is proposed to prevent — obesity, type 2 diabetes, hypertension, cardiovascular disease, metabolic syndrome, anxiety, depression, sleep disorders, PCOS, and NAFLD — while explicitly integrating recent (2020–2026) chronobiological and chrononutrition literature. This review addresses that gap.

2. OBJECTIVES

- To synthesise classical Ayurvedic descriptions of Dinacharya from the Brihatrayi and allied Nighantu literature.
- To map individual Dinacharya components onto corresponding modern chronobiological, chrononutritional, and physiological mechanisms.
- To critically evaluate the current evidence base linking Dinacharya practices to prevention of obesity, diabetes, hypertension, cardiovascular disease, metabolic syndrome, anxiety, depression, sleep disorders, PCOS, and NAFLD.
- To identify research gaps and propose practical, evidence-aligned recommendations for clinicians, researchers, and public-health planners.

3. METHODOLOGY

Databases Searched: PubMed, Scopus, Google Scholar, the AYUSH Research Portal, and DHARA (Digital Helpline for Ayurveda Research Articles).

Search Strategy: Boolean combinations of "Dinacharya", "Ayurveda daily regimen", "circadian rhythm", "chronobiology", "chrononutrition", "time-restricted eating", "Brahma Muhurta", "Abhyanga", "Vyayama", cross-referenced with "obesity", "diabetes mellitus", "hypertension", "cardiovascular disease", "metabolic syndrome", "anxiety", "depression", "sleep disorder", "PCOS", and "NAFLD".

Inclusion Criteria: Peer-reviewed narrative and systematic reviews, observational and interventional studies, and classical Ayurvedic textual references (in standard published translations/commentaries) relevant to daily regimen, circadian biology, or the named lifestyle disorders, published predominantly between 2015 and 2026; WHO/UN public-health data where directly relevant.

Exclusion Criteria: Non-peer-reviewed blogs and

promotional/commercial web content (used only for orientation, not as evidentiary citations), duplicate publications, and studies without extractable relevance to daily-regimen or circadian mechanisms.

Time Period: Classical sources — standard published editions of the Brihatrayi and allied Nighantus. Contemporary sources — principally 2015–2026, with emphasis on 2020–2026 publications.

4. CLASSICAL AYURVEDIC REVIEW

The concept of Dinacharya is described most systematically in the Sutra Sthana of the Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya, with further elaboration in the Ashtanga Sangraha, Bhavaprakasha, and Yogaratnakara. Acharya Vagbhata's dictum — Brahme muhurte uttishthet swastho rakshartham ayushah ("one who is healthy should rise in Brahma Muhurta for the protection of longevity") — anchors the entire regimen in the pre-dawn hour, a period Ayurveda regards as Sattvika (mentally lucid) and conducive to elimination, study, and spiritual practice.[6]

4.1 Sequence of Dinacharya as described in classical texts

- Brahma Muhurta Jagarana — waking approximately 96 minutes before sunrise.
- Malotsarga and Mutrapravartana — timely evacuation of bowel and bladder.
- Danta Dhavana and Jihva Nirlekshana — tooth cleaning and tongue scraping with recommended Kashaya (astringent), Tikta (bitter), or Katu (pungent) herbal substances.
- Anjana — collyrium application for ocular hygiene.
- Nasya — instillation of medicated oil/substance into the nostrils.
- Gandusha/Kavala — oil pulling and gargling.
- Abhyanga — whole-body oil massage, with special emphasis on the head (Shiro Abhyanga), ears (Karna Purana), and feet (Pada Abhyanga).
- Vyayama — physical exercise performed up to Ardha Shakti (half of one's maximal capacity), followed by Udvartana (herbal powder massage).
- Snana — bathing.
- Ahara Vidhi — meal-timing and dietary conduct, with the largest meal recommended near midday when Pitta (linked to Agni/digestive capacity) is dominant.
- Ratricharya — night regimen, including a lighter evening meal, avoidance of Divaswapna (daytime sleep) except in specific conditions, and timely sleep to align with Kapha-dominant early night hours.

The Charaka Samhita further specifies Ritu-sātmya-based

modification of these practices, and repeatedly frames Dinacharya as integral to Swasthavritta (the branch of Ayurveda devoted to preventive and promotive health) rather than as therapy for existing disease — an explicitly preventive, not curative, orientation that aligns closely with the framing of modern lifestyle medicine.[7,8]

5. CONCEPTUAL FRAMEWORK

Ayurvedic physiology situates Dinacharya within the broader doctrine of Kala Parinama (temporal transformation), whereby Vata, Pitta, and Kapha doshas each predominate during specific diurnal windows: Kapha in the early morning and early night, Pitta at midday and midnight, and Vata in the late morning/late night transitional periods. Dinacharya activities are timed to either support or counteract the dosha expected to predominate at a given hour — for example, waking before the Kapha-dominant late morning period to avoid heaviness and lethargy, and eating the largest meal when Pitta (and, by extension, Agni) is strongest.[6,9]

This temporal-physiological framework — dosha periodicity mapped onto a 24-hour cycle — is conceptually analogous to the modern description of a central circadian pacemaker (the SCN) entraining peripheral oscillators in metabolically active tissues. Where Ayurveda describes Agni Bala (digestive strength) waxing and waning across the day, modern chronobiology describes measurable diurnal variation in insulin sensitivity, gastric emptying, and postprandial glycaemic response. The conceptual bridge proposed in this review is not an assertion of biochemical equivalence between dosha and specific molecular pathways, but a structural parallel: both systems independently arrived at the principle that timing of intake and activity materially affects physiological outcome, and both prescribe regularity and daily structure as protective.

6. MODERN SCIENTIFIC CORRELATION

6.1 Circadian physiology and the suprachiasmatic nucleus

The mammalian circadian system is organised around a master clock in the hypothalamic suprachiasmatic nucleus, entrained principally by light, which synchronises peripheral clocks in the liver, adipose tissue, pancreas, and gut via neuroendocrine and behavioural (feeding, activity) signals.[4,5] Waking at a consistent, early hour — as prescribed by Brahma Muhurta Jagarana — supports stable light entrainment of the SCN, while the post-waking rise in cortisol (the cortisol awakening response) contributes to alertness, immune modulation, and metabolic priming; several recent applied reviews of Dinacharya explicitly cite this cortisol dynamic as a physiological correlate of early waking.[10,11]

6.2 Chrononutrition and meal timing

A substantial and rapidly growing chrononutrition literature demonstrates that food-intake timing acts as a potent synchronising ("zeitgeber") signal for peripheral circadian clocks, independent of total caloric intake. Time-restricted eating (TRE) protocols confining intake to earlier segments of the day are associated with improved insulin sensitivity, glycaemic control, and lipid profiles compared with later or extended eating windows, while late-night eating is independently associated with impaired glucose handling and increased cardiometabolic risk.[12–16] This body of evidence provides a direct, mechanistically plausible correlate for the classical Ayurvedic instruction to consume the principal meal near midday and to keep the evening meal light and early.

6.3 Abhyanga, Vyayama, and neuroendocrine modulation

Applied reviews of Dinacharya report that Abhyanga (oil massage) is associated with normalisation of circadian rhythm through modulation of tryptophan and serotonin pathways — precursors relevant to melatonin synthesis and sleep regulation — while structured Vyayama (exercise) performed

at appropriate intensity has been associated in the same literature with reductions in blood pressure, HbA1c, and cardiovascular risk markers, and with benefit in neurodegenerative and mood-related conditions.[10,11] Nasya and oral-hygiene procedures (Kavala/Gandusha) have similarly been linked in applied reviews to reduced upper-respiratory infection risk and improved periodontal indices.[10,11]

6.4 Sleep, mental health, and chronodisruption

Modern chronobiology identifies melatonin suppression via aberrant light exposure (particularly blue-spectrum light from screens) as a central mechanism of contemporary sleep-onset insomnia, with downstream effects on mood regulation and metabolic hormone secretion.[17] The Dinacharya/Ratricharya prescriptions of early, consistent sleep timing and avoidance of daytime sleep are structurally aligned with modern sleep-hygiene recommendations designed to counter exactly this pattern of chronodisruption, and recent Kriya Sharir-oriented reviews have explicitly framed Dinacharya as a candidate non-pharmacological approach to digital-era sleep disorders.[17]

Table 1. Dinacharya practices mapped to proposed modern physiological correlates

Dinacharya Practice	Classical Rationale	Proposed Modern Correlate	Relevant Lifestyle Disorders
Brahma Muhurta Jagarana (pre-dawn waking)	Sattvika period; supports Vata-Kapha balance	Consistent light entrainment of SCN; cortisol awakening response	Depression, anxiety, sleep disorders, metabolic syndrome
Danta Dhavana / Jihva Nirlekhana	Removes Kapha accumulation; oral Ama clearance	Reduction of oral bacterial load and plaque/gingival indices	Cardiometabolic risk (periodontal-systemic link)
Abhyanga (oil massage)	Balances Vata; nourishes Dhatus	Modulation of tryptophan/serotonin pathways; parasympathetic activation	Anxiety, sleep disorders, hypertension
Vyayama (exercise, Ardha Shakti)	Kindles Agni; reduces Kapha-Meda	Improved insulin sensitivity, BP reduction, HbA1c reduction	Obesity, T2DM, hypertension, CVD
Timed, midday-predominant meals	Aligns intake with peak Pitta/Agni	Circadian alignment of insulin sensitivity and gastric emptying (chrononutrition)	Obesity, T2DM, metabolic syndrome, NAFLD
Light, early evening meal	Avoids Agni Manda at night	Avoidance of late-night eating linked to impaired glucose metabolism	T2DM, obesity, NAFLD
Ratricharya / timely sleep	Supports Kapha-dominant early night	Melatonin-mediated sleep consolidation; metabolic hormone regulation	Sleep disorders, depression, obesity, PCOS

Figure 1. Conceptual flow: Dinacharya as a chronobiological preventive framework

Stage	Dinacharya Input Physiological Pathway	Physiological Pathway	Preventive Outcome
1	Brahma Muhurta waking + light exposure	→ SCN entrainment → cortisol awakening response	Stable circadian phase; alertness
2	Abhyanga + Vyayama	→ Autonomic/neuroendocrine modulation	↓ Stress reactivity, ↓BP, ↓insulin sensitivity
3	Midday-predominant, time-bound meals	→ Peripheral clock (liver/adipose) synchronisation	↓ Postprandial glycaemic excursion, ↓ visceral adiposity
4	Light evening meal + timely sleep	→ Melatonin release, metabolic rest phase	↓ Insomnia, ↓ NAFLD/PCOS risk factors

Figure 1 illustrates the proposed sequential pathway by which the four principal Dinacharya stages act on distinct chronobiological mechanisms to converge on the prevention of lifestyle disorders. Arrows denote proposed, not proven, causal direction.

7. DETAILED DISCUSSION

7.1 Similarities between classical and modern frameworks

Both systems converge on three structural principles: (a) regularity of timing is itself therapeutic, independent of the specific content of the activity; (b) the early part of the day is metabolically and psychologically privileged for intake and exertion; and (c) evening behaviour should taper toward rest rather than stimulation. These are not superficial parallels — chrononutrition trials specifically manipulating meal-timing while holding caloric content constant have reproduced metabolic benefits consistent with the classical emphasis on a midday-predominant, light-evening eating pattern.[12-16]

7.2 Differences and interpretive caution

Important differences remain. Classical texts frame these mechanisms in terms of dosha periodicity and Agni Bala rather than molecular chronobiology, and the two frameworks should not be treated as biochemically interchangeable. Furthermore, most of the supportive literature identified in this review consists of narrative/applied reviews of Dinacharya rather than randomised controlled trials evaluating the full, integrated regimen; the individual-component evidence (chrononutrition, exercise timing, sleep hygiene) is considerably more robust than the evidence for Dinacharya as a bundled intervention.

7.3 Current evidence and practical application

Where component-level evidence is strong (meal timing, sleep regularity, morning exercise), Dinacharya counselling can be recommended with reasonable confidence as an adjunct to conventional lifestyle-disorder prevention. Where evidence is weaker or largely mechanistic-inferential (e.g., Nasya for respiratory prevention, specific claims for PCOS or NAFLD reversal), recommendations should be framed as complementary and hypothesis-generating rather than as established preventive therapy.

7.4 Limitations

- Most Dinacharya-specific sources are narrative reviews rather than controlled trials; publication bias toward positive findings cannot be excluded.
- Heterogeneity in how Dinacharya is operationalised across studies limits pooled quantitative synthesis.
- Long-term, hard-outcome data (incident diabetes, cardiovascular events) for Dinacharya as an integrated protocol are lacking.

7.5 Future scope

Pragmatic randomised trials comparing structured Dinacharya counselling against standard lifestyle advice, using validated circadian biomarkers (salivary cortisol rhythm, actigraphy, continuous glucose monitoring) as intermediate endpoints, represent a high-value and currently underexploited research direction.

8. RECENT RESEARCH EVIDENCE

Study	Year	Design	Sample/Scope	Major Finding	Clinical Significance
Asutkar et al., Int J Ayurvedic Med (DOI 10.47552/ijam.v14i2.3578)	2023	Narrative/applied review	Classical + biomedical literature	Abhyanga normalises circadian rhythm via tryptophan/serotonin; Vyayama reduces BP, HbA1c, CVD risk	Supports component-level Dinacharya efficacy for metabolic and cardiovascular risk
Nimbarte & Bhanare, J Neonatal Surg 14(8)	2025	Comparative narrative review	Chronobiology & Dinacharya literature	Chrononutrition and Aushadha Sevana Kala parallel classical time-specific dietary/therapeutic timing	Reinforces mechanistic plausibility of meal-timing guidance
Kriya Sharir perspective review, AYUSHDHARA	2026	Narrative review	Sleep-disorder focused	SCN/melatonin pathway disruption from screen exposure paralleled by Dinacharya sleep-timing guidance	Positions Dinacharya as adjunct for digital-era insomnia
NHLBI Chrononutrition Workshop Report, J Am Heart Assoc	2024	Expert workshop report	Cardiometabolic populations incl. shift workers	Time-restricted eating and earlier eating windows improve lipid and glycaemic parameters	Direct biomedical support for midday-predominant, early-evening meal timing
Chrononutrition and energy balance review, PMC	2025	Narrative review (2010-2025 literature)	General adult population	8-hour eating windows more effective for weight loss than longer windows in trials >12 weeks	Supports time-bound eating as obesity-prevention strategy

9. PUBLIC HEALTH PERSPECTIVE

The Sustainable Development Goal target 3.4 — reducing premature NCD mortality by one-third by 2030 — remains off-track according to recent WHO-linked Global Burden of Disease analyses, which project continued growth in cardiovascular, diabetic, and obesity-related morbidity through 2050 without intensified preventive action.[1] WHO's own reporting frames physical activity, dietary pattern, and behavioural regularity as "best buy" cost-effective interventions for NCD prevention.[18,19] Within India's National Health Policy and the AYUSH Ministry's mandate for mainstreaming traditional preventive health knowledge, Dinacharya represents a scalable, low-cost, self-administrable behavioural framework that could be integrated into school health curricula, workplace wellness programmes, and primary-care lifestyle counselling — provided it is presented as an evidence-aligned complement to, not a replacement for, established preventive medicine and pharmacotherapy where indicated.

10. FUTURE RESEARCH DIRECTIONS

- Randomised controlled trials of structured Dinacharya counselling versus standard-of-care lifestyle advice, powered for intermediate cardiometabolic endpoints.
- Mechanistic studies correlating Dosha-based diurnal typing with objective circadian biomarkers (cortisol rhythm, core body temperature, actigraphy).
- Long-term cohort studies examining adherence to Dinacharya and incident lifestyle-disorder rates.
- Dedicated trials in PCOS and NAFLD populations, where current support is largely inferential.
- Development and validation of a standardised Dinacharya-adherence questionnaire for research use.

11. PRACTICAL RECOMMENDATIONS

For Clinicians

- Incorporate structured sleep-timing, meal-timing, and morning-exercise counselling (core Dinacharya elements with strongest evidence) into routine lifestyle-disorder prevention consultations.

For Researchers

- Prioritise pragmatic trial designs with objective circadian

and metabolic biomarkers over purely subjective outcome measures.

For Public Health Professionals

- Consider Dinacharya-based behavioural messaging as a culturally resonant vehicle for delivering globally endorsed chrononutrition and sleep-hygiene guidance.

For Yoga Practitioners

- Sequence Vyayama and Pranayama within the Brahma Muhurta–morning window to align with the physiological rationale described in Section 6.

For Policymakers

- Explore integration of Dinacharya-based preventive modules into AYUSH-linked primary-care and school-health programmes, subject to further evidence generation.

For Students

- Use the Dinacharya sequence (Section 4.1) as a structured, examination-relevant framework linking Swasthavritta theory to modern preventive-medicine correlates.

12. CONCLUSION

Dinacharya represents a biologically coherent, classically codified preventive framework whose principal components — timed waking, oil massage, structured exercise, midday-predominant and time-bound meals, and consistent sleep timing — show meaningful convergence with contemporary chronobiological and chrononutrition evidence relevant to obesity, diabetes, hypertension, cardiovascular disease, metabolic syndrome, anxiety, depression, sleep disorders, PCOS, and NAFLD. The strength of supporting evidence varies by component, being strongest for meal- and sleep-timing and comparatively weaker for practices such as Nasya and Anjana. Rigorous, adequately powered clinical research on Dinacharya as an integrated protocol is needed before it can be recommended beyond its current status as a plausible, low-risk, complementary preventive strategy.

REFERENCES

1. Freihat O, Sipos D, Aamir M, Kovacs A, Hennis A. Global burden and future projections of non-communicable diseases (2000–2050): progress toward SDG 3.4 and disparities across regions and risk factors. PLoS One. 2025 Dec 10. DOI: 10.1371/journal.pone.0336036.
2. World Obesity Federation. Obesity & other NCDs [Internet]. World Obesity Day; 2025 [cited 2026 Jul 23]. Available from: worldobesityday.org/obesity-and-ncds.
3. World Obesity Federation. Alarming rise of obesity: the 4th United Nations high-level meeting on noncommunicable diseases and mental health. 2025. PMC12396183.
4. da Cunha NB, et al. Chrononutrition and energy balance: how meal timing and circadian rhythms shape weight regulation and metabolic health. 2025. PMC12252119.
5. Advancing Chrononutrition for Cardiometabolic Health: A 2023 National Heart, Lung, and Blood Institute Workshop Report. J Am Heart Assoc. 2024;13(9). DOI: 10.1161/JAHA.124.039373.
6. Prof. Jyotir Mitra (Ed./Trans.). Ashtanga Sangraha, Sutra Sthana, Dinacharya Adhyaya. Reprint 2019. Varanasi: Chaukhamba Sanskrit Series Office.
7. Agnivesha. Charaka Samhita, Sutra Sthana, Chapter 5 (Matrashitiya Adhyaya) and Chapter 8 (Indriyopa kramaniya Adhyaya), with Ayurveda Dipika commentary of Chakrapanidatta. Varanasi: Chaukhamba.
8. T. Shreekumar (Trans.). Ashtanga Hridaya of Vagbhata, Sutra Sthana, Chapter 2 (Dinacharya Adhyaya). 8th ed. Thrissur: Harisree Publications.
9. Balasu Sitaram (Trans.). Bhavaprakasha, Vol. 1, Dinacharyartu Prakarana. Reprint 2018. Varanasi: Chaukhamba Orientalia; pp. 67-110.
10. Asutkar S, Yadav Y, Asutkar V. Applied aspects of Dinacharya – the daily regimen as per Ayurveda, directing towards health maintenance and disease prevention in present era. Int J Ayurvedic Med. 2023;14(2):317-324. DOI: 10.47552/ijam.v14i2.3578.
11. Nimbarte, Bhanare RS. Chronobiology and circadian rhythm-based daily regimen in Ayurveda – a comparative analysis. J Neonatal Surg. 2025;14(8):30-38.
12. Sharma A, et al. Ayurvedic perspective of circadian rhythm. [Comprehensive literature review]. Research Gate. 2021.
13. Chrononutrition in the prevention and management of metabolic disorders: a literature review. 2024. PMC10935435.

14. Kamarul Zaman et al. Effect of eating-window duration on weight loss outcomes: comparative analysis. Cited in: Chrononutrition and energy balance review. PMC12 252119; 2025.
15. Frontiers in Nutrition. Time-restricted eating and metabolic health: implications for nutritional strategies and weight loss. 2026;13:1872454. DOI: 10.3389/fnut.2026.1872454.
16. Journal of Health, Population and Nutrition (Springer). Circadian nutrition and obesity: timing as a nutritional strategy. 2025. DOI: 10.1186/s41043-025-01102-y.
17. Circadian Rhythm Disruption and Dinacharya: A Kriya Sharir Perspective on Sleep Disorders in the Digital Era. AYUSHDHARA. 2026.
18. World Health Organization. World Health Statistics 2023: monitoring health for the SDGs [Internet]. Geneva: WHO; 2023.
19. World Health Organization. Noncommunicable diseases fact sheet [Internet]. Geneva: WHO; 2024.
20. Role of Dinacharya to maintain circadian rhythm for cell rejuvenation – a review. J Ayurveda Integr Med Sci. 2024.
21. Applied aspects of Dinacharya – the daily regimen as per Ayurveda [full text]. ResearchGate. 2023.
22. Mourya M. Ayurvedic perspectives on the physiology of circadian rhythms. Indian J Appl Res. 2025.
23. Art of Living. Ayurveda Dinacharya: use the circadian rhythm of your body for optimal wellness [Internet]. 2023.
24. World Obesity Day. Obesity and NCDs: World Obesity Atlas 2025 [Internet]. 2025.
25. Susruta. Sushruta Samhita, Sutra Sthana, Chapter 24 (Swasthavritta), with Nibandhasangraha commentary of Dalhana. Varanasi: Chaukhamba Orientalia.
26. Bargale SS, Shashirekha HK. Textbook of Swasthavritta. Rev. ed. 2023. New Delhi: Chaukhamba Publications; Dinacharya section, pp. 10-33.
27. Mangalagouri V. A textbook of Swasthavritta. Reprint 2011. Varanasi: Chaukhamba Orientalia; Daily regimen section, pp. 10-33.