

## Rethinking Obesity: The Ayurvedic Framework for Lifestyle and Behavioural Transformation

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### Abstract

*Sthaulya* or Obesity is a global health concern that is increasing rapidly, leading to various metabolic disorders and complications such as diabetes, hypertension, cardiovascular diseases, and psychological stress. *Ayurveda* classifies obesity under *Santarpanottha Vikara* and attributes it to an imbalance in *Kapha Dosha*, *Medo Dhatvagni Mandya* and *Ama*. Unlike modern medical approaches, which primarily focuses on caloric restriction, exercise, and pharmacological interventions, *Ayurveda* provides a holistic framework for obesity management through *Dinacharya*, *Ritucharya*, *Shodhana Karma*, and *Sadvritta*. This review article aims to explore the *Ayurvedic* approach to *Sthaulya*, integrating traditional wisdom with modern-day applications to promote sustainable weight loss, improved digestion, and mental well-being. Specific *Ayurvedic* interventions, including *Udwartana*, *Virechana* are explained for their efficacy in reducing excess fat, enhancing metabolic function, and balancing *Doshas*. The findings underscore *Ayurveda's* relevance in modern obesity care, offering a preventive, individualized, and holistic strategy to combat obesity while promoting overall health and well-being.

**Key words :** *Sthaulya*, Obesity, *Ayurveda*, *Dinacharya*, *Ahara*, *Nidra*, *Sadvritta*.

*Ayurveda* is an ancient holistic science harmonizing the body, mind, and spirit through nature's wisdom. It prioritizes systemic balance to maintain health and prevent disease, grounded in the fundamental triad of *Dosha* (bio-elements), *Dhatu* (tissues),

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and *Mala* (waste). The three *Doshas* – *Vata*, *Pitta*, and *Kapha*, regulate physiological functions, while the seven *Dhatu*s provide the structural nourishment essential for vitality.

In *Ayurvedic* literature, *Sthaulya* is characterized by the morbid accumulation of *Medo Dhatu* (adipose tissue), leading to metabolic dysfunction. Closely related to *Medoroga*, this condition stems from *Kapha* imbalance that causes sluggish digestion and lethargy. As a *Santarpanotha Vikara* (over-nourishment disorder), it is primarily attributed to *Medo-dhatvagni Mandya*, impaired tissue-specific digestive fire. This weakness disrupts fat metabolism, triggering the production of *Ama* (toxins) and subsequent *Srotorodha* (channel obstruction). Left untreated, these imbalances predispose individuals to chronic complications, including diabetes, hypertension, and cardiovascular disease<sup>22</sup>.

Modern medicine defines *Sthaulya* as Obesity, a chronic metabolic disorder characterized by excessive adipose accumulation, identified by a BMI more than 30<sup>23</sup>. Etiological factors include genetic predisposition, sedentary lifestyles, and hormonal imbalances. Globally, obesity has reached epidemic proportions, in 2022, 1 in 8 people were affected<sup>7</sup>. Indian demographics show a particular vulnerability, with abdominal obesity affecting 40% of women and 12% of men, primarily within urban and affluent populations<sup>4</sup>.

Contemporary management relies on caloric restriction, pharmacological interventions, and bariatric surgery. In contrast, *Ayurveda* offers a holistic, preventive framework through *Dinacharya* (daily regimen), *Ritucharya* (seasonal regimen), and *Sadvritta* (ethical

conduct). While modern methods focus on weight reduction, *Ayurveda* aims to restore systemic balance via individualized nutrition, *Shodhana* (detoxification), and mental well-being. Integrating these ancient principles into modern lifestyles provides a sustainable, multi-dimensional solution for physical and emotional health.

*Dinacharya* :

*Dinacharya*, the *Ayurvedic* science of daily living, synchronizes individual physiology with solar cycles to optimize metabolic health and *Dosha* balance. By aligning human activity with the circadian rhythm, this structured regimen serves as a primary preventive tool against lifestyle-induced disorders<sup>15</sup>. In a contemporary context, *Dinacharya* can be simplified to offer practical solutions for enhancing productivity and systemic immunity.

### 1. **Brahma Muhurta: The Creator's Hour:**

The cornerstone of this routine is *Brahma Muhurta*, occurring approximately 96 minutes before sunrise<sup>6</sup>. Dominated by *Vata Dosha*, this period supports optimal mental clarity, circulation, and sensory functions. Traditionally dedicated to meditation and study, waking during this creator's hour fosters superior cognitive alertness and digestive efficiency. For the modern individual, even a modest shift, waking 30 to 60 minutes earlier can significantly mitigate stress, improve mental health, and provide essential time for self-care and professional planning.

### 2. **Mala-Mutra Visarjana: The Role of Excretion:**

In *Ayurveda*, the timely elimination of *Mala* (waste) is a prerequisite for maintaining *Agni* and *Dosha* equilibrium. Incomplete

evacuation of faeces or urine facilitates the accumulation of *Ama*, which directly impairs fat metabolism and promotes *Sthaulya*<sup>20</sup>. Chronic suppression of natural urges leads to *Udavarta* (upward movement of *Vata*), a condition that disrupts the downward flow necessary for healthy digestion. This obstruction results in the systemic buildup of *Kapha* and *Medo-Dhatu*, manifesting clinically as bloating, constipation, and weight gain<sup>18</sup>. From a contemporary perspective, chronic constipation and poor gastrointestinal motility are significant contributors to a sluggish basal metabolic rate (BMR). Inefficient waste elimination fosters an environment of low-grade systemic inflammation and toxic buildup, both of which are strongly correlated with obesity and metabolic dysfunction. Managing these excretory pathways through *Vata*-balancing protocols and purificatory therapies like *Basti* (enema) and *Virechana* (purgation) is essential for sustainable weight management.

**3. *Danta Dhavana & Jivha Nirlekhana:*** *Danta Dhavana* (tooth cleansing) and *Jivha Nirlekhana* (tongue scraping) is vital for removing *Ama*, pathogenic bacteria, and excess *Kapha* from the oral cavity. By preventing the migration of pathogens into the respiratory and digestive tracts, these practices safeguard systemic health. Utilizing antimicrobial twigs (*Neem*, *Babool*) or powders (*Triphala*, *Haridra*) stimulates *Bodhaka Kapha* and *Jatharagni*, enhancing taste perception and metabolic initiation. Modern adaptation involves copper or stainless steel scrapers; copper is particularly favoured for its oligodynamic properties and *Pitta-Kapha* balancing effects.

**4. *Udwardhana:*** *Udwardhana* is dry powder

massage in upward strokes. Unlike *Abhyanga* (oil massage) which is contraindicated in *Sthaulya* due to its nourishing (*Brimhana*) nature; *udwardhana* brings lightness. It stimulates the skin to enhance circulation, alleviate *Srotorodha* and liquefy excess *Medo Dhatu*. Utilizing *Ruksha* (dry) herbs like *Yava*, *Musta*, or *Triphala* churna promotes lightness and reduces subcutaneous fat. Integrating *Udwardhana* into contemporary wellness routines, either through daily herbal scrubs or clinical *Panchakarma* protocols, remains a potent strategy for obesity management<sup>26</sup>.

**5. *Vyayama:*** *Vyayama* (physical exercise) is the most critical *Dinacharya* intervention for obesity, promoting *Laghavam* (lightness) and metabolic efficiency. It systematically reduces *Medo Dhatu* and balances *Kapha* by enhancing circulation and muscle tone<sup>17</sup>. *Ayurveda* advocates for *Ardha Shakti*, exercising to only half of one's physical capacity to prevent exhaustion and injury<sup>11</sup>. Ideally performed in the morning post-evacuation, *Vyayama* should be adapted to the individual's *Prakriti* and the current season. Integrating structured activities like *Yoga*, cycling, or brisk walking into sedentary modern routines provides a sustainable framework for regulating weight and improving sleep quality.

**6. *Snana:*** Beyond hygiene, *Snana* (bathing) is a therapeutic ritual that enhances touch perception, circulation, and vitality. It is categorized by water temperature: *Ushna Snana* (warm bath) pacifies *Vata* and *Kapha* but is contraindicated for the head to protect sensory acuity, while *Sheeta Snana* (cold bath) is ideal for *Pitta* dominance. In a modern wellness context, a morning bath serves to

revitalize the body for daily activity, while an evening shower functions as a parasympathetic trigger to reduce stress and induce restorative sleep.

7. **Aharakala:** In *Ayurveda*, *Aharakala* dictates that the timing and manner of ingestion are as critical as dietary composition<sup>13</sup>. To maintain *Agni* and prevent *Sthaulya*, guidelines mandate eating only upon the digestion of the previous meal, avoiding late-night consumption, and resisting overeating. *Akala Bhojana* (untimely eating) induces *Agni Mandya* and *Meda Vriddhi*, leading to impaired fat metabolism. Modern chrono-nutrition mirrors these principles, suggesting that aligning meal times with circadian rhythms, and intermittent fasting optimizes metabolic health and reduces obesity risk.

8. **Ratricharya:** Nightly regimen emphasizes physiological winding down to facilitate restorative sleep and digestion<sup>16</sup>. Classical protocols advise light, pre-sunset meals and gentle activity (*Shayana Vyayama*) to prevent *Kapha* stagnation. Retiring by 10 PM aligns with the natural sedative phase of the circadian cycle, supporting hormonal equilibrium. Conversely, modern social jetlag, characterized by late-night eating and blue light exposure disrupts melatonin secretion and insulin sensitivity. Integrating *Ratricharya* with digital detoxification and consistent sleep schedules provides a potent defence against stress-induced weight gain and metabolic syndrome.

*Rutucharya* :

*Rutucharya* provides a framework for synchronizing dietary and lifestyle

interventions with the six seasonal cycles (*Rutus*), which naturally modulate *Agni-Bala* and *Dosha-Bala*<sup>8</sup>. This approach facilitates periodic detoxification and metabolic recalibration to prevent the systemic imbalances that lead to *Sthaulya*.

1. *Shishira Rutu*: Late Winter (January–March):

During *Shishira*, environmental cold naturally kindles *Jatharagni*, requiring a nourishing diet of warm, unctuous foods such as *Ghee* and meat soups to sustain metabolic demands. To counteract *Kapha* accumulation, the integration of thermogenic spices like *Shunthi* (ginger) and *Maricha* (black pepper) is essential. Regular *Vyayama* and *Abhyanga* are recommended to prevent *Kapha* stagnation and sluggishness. *Basti* (medicated enema) is particularly effective during this transition to pacify *Vata* and regulate fat metabolism, serving as a primary preventive measure against seasonal weight gain.

2. *Vasanta Rutu*: Spring (March–May):

*Vasanta* is characterized by the liquefaction of accumulated *Kapha* due to rising solar intensity, resulting in *Agni Mandya*. Dietary protocols prioritize *Laghu* and *Ruksha* attributes, utilizing *Yava* (barley) and *Mudga* (green gram) alongside *Tikta-Kashaya* (bitter-astringent) herbs like *Nimba* and *Haridra* to facilitate detoxification. Intensified *Vyayama* and *Udwartana* are essential to counteract weight gain. Diurnal sleep (*Diva-swapna*) is strictly contraindicated. *Vamana Karma* (therapeutic emesis) is the gold standard for expelling *Kapha*, while *Virechana* (purgation) provides systemic metabolic recalibration.

3. *Grishma Ritu*: Summer (May–July):

In *Grishma*, environmental heat depletes bodily moisture, weakening *Agni* while triggering *Vata* increase and *Pitta* accumulation. Management focuses on *Sheeta* (cooling) and *Drava* (liquid) nutrition, such as *Peya* (rice gruel), *Takra* (buttermilk), and *Narikela Udaka* (coconut water). Physical exertion must be minimized to prevent *Pitta* aggravation. *Pranayama* and cooling environments are recommended to preserve *Bala* (strength). *Raktamokshana* (bloodletting) may be strategically employed to manage *Pitta*-related inflammatory conditions and maintain systemic homeostasis.

4. *Varsha Ritu*: Monsoon (July–September):

Environmental dampness in *Varsha* triggers *Vata* vitiation and significant *Agnimandya*. Management centers on *Ushna* (warm) and *Laghu* (easily digestible) nutrition, specifically aged grains, lentils, and medicated water. Focus on *Abhyanga* with warm oils to pacify *Vata* and indoor exercise to avoid environmental pathogens. *Basti* (medicated enema) is the primary therapy during this period to eliminate *Vata* and prevent secondary metabolic weight gain.

5. *Sharada Ritu*: Autumn (September–November):

The sudden transition to heat in *Sharada* causes *Pitta* aggravation. Dietary protocols utilize *Madhura-Tikta* (sweet-bitter) and *Sheeta* attributes—such as pomegranate, *Ghee*, and *Chandana*, to mitigate inflammatory responses. Cooling *Pranayama* (e.g., *Sheetali*) and *Virechana* is clinically indicated to detoxify the blood and balance *Pitta*,

preventing skin and digestive complications.

6. *Hemanta Ritu*: Early Winter (November–December):

In *Hemanta*, *Vata* pacifies as *Agni* reaches its peak strength, requiring a high-caloric, *Brimhana* diet of nuts, dairy, and whole grains. This season allows for high-intensity *Vyayama* (strength training) to optimize metabolism, complemented by regular *Abhyanga*. *Sneha-Swedana* (oleation and sudation) protocols are highly beneficial for joint health and the management of metabolic disorders like *Sthaulya*.

*Aharakala* :

*Ayurveda* categorizes *Ahara* (diet) as a primary pillar of life, governed by *Ashta Ahara Vidhi Visheshayatana*, eight factors that determine nutritional efficacy and metabolic impact.

1. **Prakriti (Nature)**: *Prakriti* refers to the innate qualitative properties of food.

2. **Karana (Processing)**: *Karana* denotes how processing, such as churning or cooking, alters these qualities. For example, processing heavy curd into *Takra* (buttermilk) significantly enhances its digestibility.

3. **Sanyoga (Combination)**: *Sanyoga* warns against *Viruddha Ahara* (incompatible combinations like milk and fish) which trigger *Ama* (toxins). For example, fish and milk together should be avoided.

4. **Matra (Quantity)**: *Matra* emphasizes the quadrant rule: filling the stomach with 50% solid food, 25% liquids, and leaving 25% empty to facilitate gastric motility.

5. **Desha (Space)**: *Desha* advocates for

local, seasonal, and *Prana*-rich (fresh) foods.

**6. Kala (Time) :** *Kala* aligns intake with circadian rhythms, recommending the primary meal at midday when *Abhyantragi* (digestive fire) peaks.

**7. Upayoga-samstha (Method) :** *Upayoga-samstha* focuses on mindful eating, consuming food in a calm environment to optimize enzymatic secretion.

**8. Upayokta (Consumer):** *Upayokta* necessitates individualization based on the consumer's *Prakriti*, age, and *Agni-bala*. Adhering to *Ayurvedic* dietary principles optimizes *Jatharagni* and serves as a primary preventive strategy against *Sthaulya* and associated metabolic syndromes. These ancient protocols closely align with modern **chrono-nutrition**, which identifies meal timing as a critical regulator of hormonal balance and energy utilization. Current research corroborates that irregular eating patterns and nocturnal consumption exacerbate insulin resistance and metabolic dysfunction. Conversely, integrating *Ahara Kala*, specifically consistent, circadian-aligned meals supports gut health and metabolic homeostasis. These holistic strategies offer a sustainable, evidence-based framework for modern obesity management and long-term systemic well-being.

*Mindful eating :*

**Psychophysiology :** Mindful eating involves total cognitive presence during ingestion, neutralizing distractions to prioritize sensory engagement - aroma, texture, and flavor. Clinically, this practice facilitates the transition to parasympathetic nervous system dominance, optimizing gastrointestinal function and nutrient absorption<sup>8</sup>. By amplifying

endogenous hunger and satiety cues, mindfulness serves as a critical intervention against emotional eating and binge cycles<sup>24</sup>.

In modern clinical practice, patients are advised to align meal timings with *Dinacharya* while eliminating digital distractions. Key behavioural modifications include:

- **Mastication & Pacing:** Thorough chewing and intentional pauses between boluses to allow for hormonal satiety signalling.
- **Post-Prandial Quiescence:** Remaining seated for 5–10 minutes post-meal to prevent the metabolic disruption caused by immediate physical exertion or recumbency.

Incorporating at least one fully mindful meal daily provides a sustainable framework for portion control and weight management in obesity-prone individuals.

*Stress Management :*

Researches identify chronic stress as a hidden driver of *Sthaulya*, primarily through elevated **cortisol** levels which trigger hyperphagia and visceral adiposity. In *Ayurveda*, this mind-body connection is well-documented, mental stressors like *Chinta* (anxiety) and *Atichintana* (overthinking) vitiate *Vata* and *Prana*, subsequently impairing *Agni* and promoting *Ama* accumulation. This metabolic disruption leads to the morbid increase of *Medo Dhatu* and emotional eating cycles.

Addressing the psychological components of obesity requires a multimodal approach to recalibrate the nervous system -

- **External Therapies :** *Shirodhara* and *Abhyanga* provide potent sensory regulation, while aromatherapy (like lavender, sandal wood) stimulates the limbic system to induce relaxation.
- **Internal Interventions:** *Medhya Rasayanas* such as *Ashwagandha* and *Brahmi* enhance emotional resilience and reduce anxiety-induced cravings.
- **Mind-Body Protocols:** *Yoga*, *Nadi Shodhana*, and *Bhramari Pranayama* act as physiological brakes on the sympathetic nervous system<sup>3</sup>. Modern Cognitive Behavioral Therapy (CBT) and mindfulness further complement these by identifying emotional triggers, improving self-regulation, and fostering sustainable weight management<sup>5</sup>.

Daily integration, ranging from 10-minute morning meditation to nocturnal *Ashwagandha* supplementation, addresses the neurobiological roots of obesity for a balanced, long-term therapeutic outcome.

*Sadvritta* :

*Sadvritta*, also called *Sadachara* (righteous conduct) constitutes the ethical framework of *Ayurvedic* preventive medicine, emphasizing harmony between the individual, society, and nature<sup>14</sup>. By regulating neuro-emotional responses and social interactions, *Sadvritta* serves as a primary tool for maintaining *Swasthya* (homeostasis) and preventing psychosomatic disorders<sup>9</sup>.

*Four-Fold Classification of Conduct* :

1. **Sharirika (Physical):** Focuses on biological

discipline, including *Brahma Muhurta* awakening, hygiene, and *Vyayama*. These habits fortify systemic immunity and metabolic regularity.

2. **Manasika (Psychological):** Emphasizes emotional regulation. Cultivating *Kshama* (forgiveness) and *Dhairya* (patience) mitigates the physical impact of negative stressors like anger and jealousy.
3. **Samajika (Social):** Advocates for ethical social engagement, truthfulness, respect, and altruism. Positive social conduct fosters a supportive environment essential for mental health.
4. **Adhyatmika (Spiritual):** Involves practices like meditation and self-reflection to develop inner stability and existential purpose.

In the modern era, *Sadvritta* translates into a lifestyle prescription for stress reduction. Practicing digital detox, mindful communication, and gratitude alignment functions as a non-pharmacological intervention for achieving holistic health. Integrating these ethical pillars into daily life addresses the root behavioural causes of metabolic and lifestyle-related diseases.

*Nidra* :

*Nidra* is one of the three *Upastambhas* (supporting pillars) essential for rejuvenation and tissue repair<sup>19</sup>. *Ayurveda* describes sleep as a state where sensory organs (*Indriyas*) withdraw from their objects, allowing *Kapha* dominance to induce the necessary heaviness for rest. Adequate sleep is understood equivalent to maternal nourishment, fostering immunity (*Bala*) and metabolic balance<sup>2</sup>.

Conversely, *Anidra* (insomnia) or poor sleep quality triggers *Vata* vitiation and *Ama* accumulation, directly contributing to fatigue, anxiety, and obesity.

*Ratri-Swapna* (nocturnal sleep) is the healthiest form of rest, ideally commencing by 10 PM during the natural *Kapha* phase of the night.

- **Circadian Alignment:** Modern science supports this through the study of melatonin secretion and memory consolidation<sup>1</sup>. Sleep deprivation promotes insulin resistance and cortisol elevation, mirroring the *Ayurvedic* view of metabolic disruption<sup>10</sup>.
- **Sleep Hygiene:** To optimize rest, *Ayurveda* recommends *Abhyanga*, *Ashwa-gandha* milk, and *Pranayama* to pacify the mind.
- **Contraindications:** Except for specific therapeutic cases (the elderly or the debilitated), *Diva-swapna* (daytime sleep) is contraindicated as it increases *Meda* (fat) and obstructs bodily channels (*Srotas*).

Prioritizing these timing-based rituals offers a non-pharmacological solution to restore vitality and prevent the lifestyle disorders.

#### *Psychological aspects of Obesity :*

Obesity is a complex psychosomatic disorder where emotional well-being and metabolic health are inextricably linked. *Ayurveda* identifies *Manasika* (psychological) factors as primary drivers of *Ati Sthaulya*, categorizing it among the *Ashta Nindita Purusha* (eight socially/clinically undesirable conditions) due to its profound impact on vitality.

#### *Psychological Determinants :*

- **Stress and Emotional Eating:** Chronic stress induces *Ati-Chintan*, elevating cortisol and triggering cravings for high-caloric comfort foods. This disrupts the mind-body equilibrium, aggravating *Kapha* and accelerating *Meda* (fat) accumulation<sup>21</sup>.
- **Mood Disorders and Inertia:** Depression and anxiety often manifest as *Tamasic* (inert) states, leading to lethargy, disordered sleep, and a loss of motivation for physical activity or healthy nutrition<sup>12</sup>.
- **Social Stigma:** Modern research corroborates that body dissatisfaction and social discrimination create a feedback loop of emotional eating and reduced self-efficacy, further complicating weight management.

***Restoring Sattvic Equilibrium :*** *Ayurvedic* management prioritizes the cultivation of *Sattva*—a state of mental purity and balance—to counteract the hyperactivity (*Rajas*) or inertia (*Tamas*) that fuels unhealthy behaviors. Integrating meditation, *Pranayama*, and a *Sattvic* diet fosters the mental clarity and emotional stability necessary for sustainable metabolic health.

Maladaptive eating patterns, such as screen-integrated dining and emotional bingeing, are identified in *Ayurveda* as *Kshudhatimatra* (pathological hyperphagia) and *Pipasatiyog* (disordered intake). These behaviours reflect a loss of impulse control and a lack of sensory awareness. Adherence to *Ahara Vidhi Visheshayatana* serves as the primary behavioural intervention to recalibrate these neuro-metabolic triggers.

To address the psychological roots of

*Sthaulya*, *Ayurveda* utilizes a range of regulatory tools:

- **Dhyana and Pranayama:** These practices facilitate autonomic nervous system regulation, reducing cortisol and enhancing mindfulness to mitigate emotional eating.
- **Sadvritta:** Cultivating mental discipline and self-awareness through *Sadvritta* provides the psychological resilience necessary for long-term behavioural change.
- **Nasya Therapy:** As a specialized *Panchakarma* procedure, *Nasya* (e.g., with *Brahmi Ghrita* or *Anu Taila*) clears the *Shiro Srotas* (cranial channels). This intervention is clinically effective in reducing brain fog and cognitive lethargy often associated with obesity and depressive states.
- **Adaptogenic Support:** The integration of *Ashwagandha* (for adrenal modulation) and *Tagara* (for mental restlessness and sleep induction) provides a systemic approach to stress-induced metabolic dysfunction.

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