WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
Coden USA: WJPRAP Impact Factor 8.63
Volume 15, Issue 8, 956-961. Review Article ISSN 2277–7105

PHYSIOLOGICAL SIGNIFICANCE OF *AHARA PARINAMAKARA BHAVA* IN DIGESTION AND METABOLIC HOMEOSTASIS

Dr. Aayushi Choudhary*[1], Dr. Sarika Yadav[2], Dr. Naina Joshi[3], Dr. Meenakshi Mourya[4]

[1]PG Scholar, Department of Kriya Sharir, National Institute of Ayurveda, Deemed University, Jaipur, Rajasthan, India.

[2]Assistant Professor, Department of Kriya Sharir, IASR & FOA, SKAU, Kurukshetra, India.

[3]Ph.D. Scholar, Department of Kriya Sharir, National Institute of Ayurveda, Deemed University, Jaipur, Rajasthan, India.

[4]PG Scholar, Department of Kriya Sharir, National Institute of Ayurveda, Deemed University, Jaipur, Rajasthan, India.

Article Received on 24 March 2026,
Article Revised on 13 April 2026,
Article Published on 16 April 2026

https://doi.org/10.5281/zenodo.19594061

***Corresponding Author**
Dr. Aayushi Choudhary
PG Scholar, Department of Kriya Sharir, National Institute of Ayurveda, Deemed University, Jaipur, Rajasthan, India.

How to cite this Article: Dr. Aayushi Choudhary*[1], Dr. Sarika Yadav[2], Dr. Naina Joshi[3], Dr. Meenakshi Mourya[4] (2026). Physiological Significance of Ahara Parinamakara Bhava in Digestion and Metabolic Homeostasis. World Journal of Pharmaceutical Research, 15(8), 956–961.

ABSTRACT

Background: In Ayurveda, *Ahara* is considered one of the fundamental pillars sustaining life, as it directly influences digestion, metabolism, and tissue nourishment. The concept of *Ahara Parinamakara Bhava* describes six physiological factors - *Usma*, *Vayu*, *Kleda*, *Sneha*, *Kala*, and *Samyoga* - that collectively regulate the transformation of food within the body. Understanding these factors is important for explaining digestive regulation and metabolic balance in both classical and contemporary perspectives. **Methods**: The present study is a qualitative conceptual review based on classical Ayurvedic literature and relevant modern scientific publications. Descriptions related to digestion and metabolism were analyzed from *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *and Ashtanga Sangraha*. Contemporary studies related to digestive physiology, intestinal barrier function, immune regulation, and metabolic inflammation were also reviewed to establish physiological correlations. **Discussion**: The analysis indicates that *Usma* corresponds to metabolic activity and digestive capacity, while *Vayu* regulates gastrointestinal motility and coordination. *Kleda*

and *Sneha* maintain hydration, lubrication, and mucosal protection within the gastrointestinal tract. *Kala* represents the influence of biological timing and circadian rhythm on digestion, and *Samyoga* emphasizes appropriate food combinations and dietary patterns. Disturbances in these factors may impair digestion, compromise intestinal barrier integrity, and promote immune activation with metabolic imbalance. **Conclusion**: *Ahara Parinamakara Bhava* provides an integrative physiological framework linking dietary regulation with gut homeostasis, immune balance, and metabolic health, highlighting its relevance in preventing lifestyle-related disorders.

KEYWORDS: *Agni, Ahara Parinamakara Bhava*, Digestion, Gut homeostasis.

INTRODUCTION

Diet is considered as a fundamental determinant of health in Ayurveda, as it directly influences digestion, metabolism and tissue nourishment. Among the three sustaining pillars of life[1], *Ahara* occupies a primary position due to its role in maintaining functional balance of *Dosha, Dhatu, Agni and Mala*.[2] *Acharya Charaka* emphasizes that health is preserved when food is properly digested and assimilated, whereas impaired digestion initiates disease processes.[3]

The transformation of ingested food into biologically accessible components is explained through the concept of *Ahara Parinamakara Bhava*. This concept describes six functional factors- *Usma, Vayu, Kleda, Sneha, Kala* and *Samyoga* - that collectively govern digestion and metabolism.[4] Rather than viewing digestion as a single event, Ayurveda presents it as a regulated and time-dependent physiological process.

In the modern era, irregular dietary habits, altered meal timings and increased consumption of processed foods have resulted in widespread digestive disturbances amongst the human population globally.[5] Contemporary research has also established strong links between impaired digestion, intestinal barrier dysfunction, immune activation and metabolic inflammation. In this context, *Ahara Parinamakara Bhava* offer a comprehensive physiological model that can bridge classical Ayurvedic concepts with modern understanding of digestion and metabolic health.

MATERIALS AND METHODS

This article is based on a qualitative conceptual analysis of classical Ayurvedic literature and relevant modern scientific publications. Primary Ayurvedic references include descriptions of digestion and metabolism from *Charaka Samhita, Sushruta Samhita, Astanga Hridaya and Astanga Sangraha*. These classical concepts were systematically reviewed to understand the functional role of each component of *Ahara Parinamakara Bhava*.

In addition, contemporary literature and articles available in search engines, related to digestive physiology, gut barrier function, immune regulation and metabolic inflammation were reviewed to facilitate physiological correlation. Conceptual interpretation was carried out by mapping Ayurvedic principles onto modern physiological processes, with emphasis on digestion, intestinal permeability, chronobiology and metabolic regulation. This integrative approach was adopted to develop a coherent and clinically relevant understanding of *Ahara Parinamakara Bhava*.

DISCUSSION

Ahara Parinamakara Bhava provides a detailed explanation of digestion as a regulated physiological process influenced by metabolic capacity, movement, timing and dietary compatibility. This concept reflects a systems-based understanding of digestion that aligns closely with contemporary views of integrative physiology.

Usma represents the functional efficiency of digestion and metabolism. In practical terms, it reflects the body's ability to process nutrients, maintain energy balance, health and longevity.[6] Modern research indicates that metabolic disorders often originate from early functional impairment rather than overt pathology. Viewed in this light, weakening of *Usma* may represent an initial stage of metabolic dysregulation, predisposing individuals to insulin resistance and chronic inflammatory states.[7]

Vayu governs movement and coordination throughout the digestive tract. Proper function of *Vayu* ensures effective mixing, propulsion and absorption of food.[8] Modern physiology similarly recognizes the importance of gastrointestinal motility and neural regulation. Disturbance of *Vayu* can result in irregular digestion and functional gastrointestinal symptoms, frequently influenced by psychological stress, highlighting the gut–brain connection emphasized in Ayurveda.

Kleda and *Sneha* maintain the internal environment required for digestion by supporting hydration, lubrication and tissue integrity. These functions are comparable to mucosal protection and epithelial barrier maintenance described in modern science.[9] When these protective mechanisms are compromised, intestinal permeability may increase, allowing partially digested substances to interact with the immune system. This offers a rational interpretation of *Ama* as a metabolically and immunologically active state arising from faulty digestion.[10]

Kala introduces the importance of biological timing in digestion. Digestive processes are influenced by circadian rhythms that regulate enzyme secretion and gut motility. Irregular eating patterns disrupt this rhythm and gradually impair digestive capacity.[11] This observation strengthens the relevance of Ayurvedic dietary discipline in the context of modern chronobiology.

Samyoga emphasizes appropriate food combinations and intake patterns. Improper combinations or excessive intake may overwhelm digestive capacity and disturb metabolic balance.[12] Emerging evidence suggests that such practices can promote gut imbalance and immune intolerance, supporting the classical concept of *Viruddha Ahara*.[13]

Disturbance of *Ahara Parinamakara Bhava* can be interpreted as a gradual functional dysregulation rather than a discrete abnormality confined only to digestion. In the early stages, impairment in digestive regulation alters the efficiency of nutrient processing and modifies the physiological environment of the gastrointestinal tract. With persistent dysfunction, the integrity of the intestinal mucosal barrier may gradually decline, allowing greater interaction between partially digested dietary components and the immune system. Such prolonged immune stimulation can contribute to the development of low-grade inflammatory responses that persist at the metabolic level. The gastrointestinal tract functions as a critical interface between dietary exposure and immune regulation. Altered digestion and inappropriate dietary practices can disturb immune tolerance by modifying the gut microenvironment and influencing immune responsiveness. In contrast, dietary practices aligned with digestive capacity help preserve mucosal integrity and minimize unnecessary immune activation. Through the reduction of inflammatory signaling within the gut environment, appropriate dietary regulation contributes to the maintenance of immune equilibrium and prevents the progression of functional disturbances toward systemic metabolic disorders. From this perspective, *Ahara Parinamakara Bhava* may be regarded as

an important physiological framework that links dietary regulation with gut immune homeostasis and metabolic health, thereby underscoring its relevance in the prevention of lifestyle-related diseases.

CONCLUSION

Ahara Parinamakara Bhava explains digestion as a regulated physiological process governed by factors such as *Usma, Vayu, Kleda, Sneha, Kala* and *Samyoga*. These components collectively influence digestive efficiency, gastrointestinal motility, mucosal protection and appropriate dietary interaction. Disturbances in these regulatory mechanisms may impair digestion, alter the intestinal environment and contribute to immune activation and metabolic imbalance. Therefore, *Ahara Parinamakara Bhava* offers an integrative framework linking dietary regulation with gut homeostasis and metabolic health, emphasizing its importance in maintaining physiological balance and preventing lifestyle-related disorders.

REFERENCES

1. Tripathi B. *Ashtanga Hridayam* (Nirmala Hindi Commentary). Delhi: Chaukhambha Sanskrit Pratisthan; Reprint 2012. Sutrasthana, Chapter 7, verses 52, 129.
2. Shastri AD. *Sushruta Samhita – Purvardha*. Vol. 1. Varanasi: Chaukhambha Sanskrit Sansthan; Reprint 2017. Sutrasthana, Chapter 15, verses 3, 73.
3. Shastri PK, Chaturvedi G. *Charaka Samhita* with Vidyotini Commentary. Varanasi: Chaukhambha Bharti Academy; Reprint 2015. Vimanasthana, Chapter 2, verse 15.
4. Shastri PK, Chaturvedi G. *Charaka Samhita* with Vidyotini Commentary. Varanasi: Chaukhambha Bharti Academy; Reprint 2015. Sharira Sthana, Chapter 6, verse 14.
5. Shastri PK, Chaturvedi G. *Charaka Samhita* with Vidyotini Commentary. Varanasi: Chaukhambha Bharti Academy; Reprint 2023. Chikitsa Sthana, Chapter 15, verse 42.
6. Nija Chacko, Ananda Lakshmy K N, Ajitha K, Anjali Sivaram, Pradeep K, Abhilash M, Hakkeem Panthappulan, & Sumi S. (2024). AHARA PARINAMAKARA BHAVAS - A KEY TO HEALTH. *Kerala Journal of Ayurveda, 3*(1). https://doi.org/10.55718/kja.249
7. Poojari AS, Banu W. “Role of Agni in Lifestyle Disorders”.International Ayurvedic Medical Journal, 2018; 6(4): 841-5.
8. Sembulingam K, Sembulingam P. *Essentials of Medical Physiology*. 9th ed. New Delhi: Jaypee Brothers Medical Publishers; Reprint, 2023; 35: 203.

9. Saluja M, Panwar A, Srivastava N. Ahara Parinama Kara Bhava's – a key to digestion and maintenance of health. *J Ayurveda Integr. Med. Sci.*, [Internet]. 2025 Nov. 7; 10(10): 206–212.
10. Abhinav Gupta edited dainik Jagran English Digestive Health and Immunity, 2020.
11. Rezaei K, Jenab E, Temelli F. Effects of water on enzyme performance with an emphasis on the reactions in supercritical fluids. Critical reviews in biotechnology. 2007 Jan 1; 27(4): 183-95
12. Dr. T. Sreekumar. A textbook of ayurvedic physiology. Harisree publications. 1st ed. Thrissur. 2022. Chapter 10: 158.
13. Turner JR. Intestinal mucosal barrier function in health and disease. *Nat. Rev. Immunol*., 2009; 9(11): 799–809.