

ROLE OF HEREDITY IN THE DETERMINATION OF DEHA PRAKRITI

*¹Dr. Gamini Taram, ²Dr. Vinay Bhardwaj

¹Scholar, Department of Kriya Sharir Shri NPA Government Ayurved College Raipur
Chhattisgarh.

²Reader, Department of Kriya Sharir, Shri NPA Government Ayurved College, Raipur,
Chhattisgarh.

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*Corresponding Author

Dr. Gamini Taram

Scholar, Department of Kriya Sharir
Shri NPA Government Ayurved
College Raipur Chhattisgarh.



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ABSTRACT

Describes health and disease through an individualized approach, where *Deha Prakriti* plays a central role. *Deha Prakriti* refers to the inherent psycho-physical constitution of an individual, determined at the time of conception and remaining unchanged throughout life. Classical Ayurvedic texts emphasize that *Prakriti* is primarily governed by hereditary factors such as *Beeja*, *Beeja- Bhaga* and *Beeja- Bhag avayava*, along with the predominance of *Doshas* during fertilization. These concepts highlight the importance of parental contribution in shaping structural, physiological, and psychological traits. Modern medical science explains heredity through genetics, where genes transmitted from parents influence physical appearance, metabolism, immunity, and disease susceptibility. Recent scientific studies have

demonstrated associations between *Ayurvedic Prakriti* types and genetic polymorphisms, giving rise to the emerging field of Ayur genomics. This integrative discipline attempts to bridge traditional ayurvedic wisdom with contemporary genetic science to support personalized medicine. The present review explores the role of heredity in the determination of *Deha Prakriti* by critically analysing classical ayurvedic literature and correlating it with modern genetic concepts. The review discusses the ayurvedic understanding of hereditary transmission, the role of *Doshas* in *Prakriti* formation, genetic determinant of constitution traits, and epigenetic influences. Emphasis is laid on understanding how inherited traits

influence metabolism, immunity, and disease predisposition. This integrative approach provides a strong conceptual framework for personalized healthcare, early disease prediction, and preventive strategies. The review concludes that *Deha Prakriti* can be considered an ancient constitutional phenotype deeply rooted in hereditary mechanisms, comparable to modern genetic and epigenetic determinants.

KEYWORDS: Deha Prakriti, Heredity, Beeja, Genetics, Dosha, Ayur genomics.

INTRODUCTION

The novel idea of Prakriti, which represents each person's unique constitution, is introduced by Ayurveda. The word "Prakriti" comes from the Sanskrit terms "Pra" upasarga and "Kri," dhatu with the addition of the kti (fia) pratyaya which mean "first" and "creation," respectively, emphasize the essential characteristics of a person's condition. It also captures the essence of a person's inherent condition or identity. *Deha prakriti*^[1,2] is defined as the natural and permanent constitution formed at the time of conception by the dominance of doshas -Vata, Pitta, and Kapha. According to Charak Samhita, once Prakriti is established, it does not change throughout life.^[3,4,5] This stability suggests a strong hereditary basis, similar to genetic makeup in modern science. According to Ayurveda the unique traits of the future kid are determined by the dominance of one, two, or all three Doshas, leading to Sama (vataj, pittaj, kapha in equal quantities), dwandaja (vatapitta, vatakapha, and kaphapitta), and ekdosha prakriti (vataj, pittaja, kaphaja) thus, there are 7 types of deha prakriti (V,P,K,VP,VK,PK,VPK)^[6,7] Human beings differ widely in their physical structure, physiological functions, psychological traits, and susceptibility to diseases. Ayurveda recognizes this diversity through the concept of *Deha Prakriti*, which forms the foundation of individualized diagnosis and treatment. Unlike the one-size-fits-all approach, Ayurveda emphasizes understanding the unique constitution of each individual before planning therapeutic or preventive measures.

Ayurvedic scholars have long recognized the influence of parental factors on offspring characteristics. Concepts such as *Beeja* (seed), *Beeja – Bhaga* (parts of the seed), and *Beeja-bhagavayava* (sub- parts of the seed) explain the transmission of traits from parents to the child.^[8] These descriptions closely resemble chromosomes, genes, and segments described in modern genetics.

The present review aims to analyse the role of heredity in determining *Deha Prakriti* from both Ayurvedic and genetic perspectives, highlighting similarities, correlations, and clinical relevance.

AYURVEDIC CONCEPT OF HEREDITY

Beeja, *Beeja -Bhaga* and *Beeja- Bhagavayava* Ayurveda explains heredity through the theory of *Beeja*, which represents reproductive elements contributed by both parents. *Beeja*, carries the blueprint of the offspring, determining physical and psychological attributes.

- *Beeja* can be compared to the complete genetic material.
- *Beeja- Bhaga* represents specific components responsible for organ development, similar to chromosomes.
- *Beeja- Bhagavayava* denotes finer subdivisions, comparable to genes.

Any defect or variation in these components leads to congenital anomalies or constitutional variations, supporting a hereditary basis of *Prakriti*.

Role of *Shukra* and *Shonita*

Prakriti of the child to be born is formed by the state of *doshas* in the *shukra* and *shonita* of the parents at the time of fertilization. *Charaka Samhita* states that the quality of *Shukra*(sperm) and *Shonita* (ovum) significantly influences the health and constitution of the offspring. Well- nourished reproductive tissues result in superior *prakriti*, whereas defects lead to weaker constitutions.^[9,10]

Dosha Dominance at Conception

The predominance of *Doshas* at the time of fertilization plays a crucial role in determining the *Deha Prakriti* (body constitution) of the individual. The relative dominance of *Vata*, *Pitta*, or *Kapha* during conception influences the physiological and psychological characteristics of the offspring. This *Dosha* predominance is further affected by factors such as parental *Prakriti*, quality of *Shukra* (sperm) and *Shonita* (ovum), maternal diet and lifestyle, mental state, season (*Kala*), and the condition of the uterus (*Garbhashaya*). Thus, the *Prakriti* of the individual is established at the time of conception and remains relatively stable throughout life.^[11]

Role of heredity in dosha predominance

VATA PRAKRITI- inherited traits include lean body structure, quick responsiveness, and nervous sensitivity. One who is wakeful, is averse to cold, is a lover music, or has cracks in the palms and soles.^[12]

PITTA PRAKRITI

Associated with strong digestion, sharp intellect, and inflammatory tendencies. One who perspires too much, whose body is yellow and lax, whose nails, eyes, palate, tongue, lips, palm are coppery.^[13] *KAPHA PRAKRITI*- Characterized by stability, strong immunity, and anabolic dominance. One who has white eyes, has bee-blue, curly and dense hair, is wealthy, has a voice like that of lion, mridanga or clouds and dreams of beautiful ponds with lotuses, swans.^[14]

These traits are inherited and remain consistent, supporting hereditary determination.

MODERN GENETIC PERSPECTIVE

Modern science explains heredity through DNA, genes, and chromosomes. Genetic inheritance determines not only physical traits but also metabolic efficiency, immune responses, and vulnerability to diseases like diabetes, hypertension, and cardiovascular disorders, Recent advances in genomics have highlighted the role of genetic polymorphisms in determining individual variability.

In recent decades, researchers have attempted to correlate *Ayurvedic Prakriti* types with genetic markers, leading to the development to Ayur genomics. This interdisciplinary field validates Ayurvedic constitution classification using modern molecular tools. Such correlations strengthen the scientific credibility of Ayurveda and enhance its applicability in personalized medicine.

GENETIC POLYMORPHISM AND *PRAKRITI*

Scientific studies have demonstrated correlation between *prakriti* types and genetic polymorphisms

Vata Prakriti with neurological and catabolic pathways

Pitta Prakriti with genes related to metabolism and inflammation

Kapha Prakriti with anabolic and immune – related genes

Theses findings validate *Ayurvedic* constitutional classification.

OBJECTIVE

To review classical Ayurvedic concepts related to heredity and *Deha Prakriti*.

To correlate Ayurvedic hereditary concepts with modern genetics and epigenetics.

To explore the role of heredity in *Dosha* predominance and disease susceptibility

To establish the relevance of *Deha Prakriti* in personalised and preventive medicine

MATERIALS AND METHODS

This review is based on an extensive study of classical Ayurvedic texts and contemporary scientific literature.

Sources of Data

Classical Ayurvedic texts: Charak Samhita, Sushruta Samhita, Ashtanga Hridaya

Commentaries: Vidyotini, Ayurveda Tatva Sandipika, Nirmala Modern databases: PubMed, Google Scholar, AYUSH Research Portal, DHARA Search strategy

Literature published between years 2000 to 2024 was reviewed using keywords such as

1. *Deha Prakriti*
2. Heredity in *Ayurveda*
3. *Beeja* and genetics
4. Ayur genomics
5. Genetic polymorphism and *Prakriti*

Relevant articles, review papers, and observational studies were analysed. Classical references were interpreted and correlated with modern genetic concepts.

EPIGENETICS AND AYURVEDA

Epigenetics refers to changes in gene expression without alteration in DNA sequence, influenced by environmental factors such as diet, lifestyle, and stress. Epigenetics closely correlates with Ayurvedic principles, where factors like *Ahara* (diet), *Vihara* (lifestyle), and *Manasika Bhava* (mental state) play a crucial role in health. Ayurveda explains that while *Prakriti* is determined at conception through *Beeja* (genetic material), its expression can be modified by maternal diet, behavior, and environment during pregnancy (*Garbhini Paricharya*). This is similar to epigenetic mechanisms like DNA methylation that regulate gene activity. For example, improper diet or stress can lead to imbalance in *Doshas* and increased disease susceptibility, just as epigenetic changes can lead to disorders like obesity or diabetes. Thus, Ayurveda and epigenetics both emphasize that heredity provides the base,

but lifestyle and environmental factors modify the final expression of traits, supporting the concept of personalized and preventive healthcare.

DISCUSSION

The concepts of Ayurveda and modern genetics converge on the idea that heredity plays a fundamental role in determining individuality. The *Ayurvedic* concept of *Prakriti* closely resembles the genetic phenotype, as both represent inherent characteristics governed by inherited factors. Scientific evidence on genetic polymorphism and Epigenetics further supports that while genes provide the basic blueprint, their expression is significantly influenced by environmental factors such as diet, lifestyle, and psychological state. This is in accordance with *Ayurvedic* principles of *Ahara*, *Vihara*, and *Manasika Bhava*, which regulate *Dosha* balance and overall health. Moreover, the concept of *Garbhini Paricharya* highlights the role of maternal factors in shaping the offspring's constitution, similar to epigenetic modifications during fetal development. Therefore, the integration of Ayurvedic and modern genetic perspectives not only validates traditional concepts but also enhances disease prediction, drug response assessment, and promotes a personalized, preventive, and holistic approach to healthcare.

CONCLUSION

Deha Prakriti is a hereditary constitution determined at conception and governed parental genetic contribution. Ayurvedic concepts of *Beeja* and *Dosha* dominance parallel modern genetic mechanisms. Integrating Ayurveda with genetics strengthens personalized medicine and preventive healthcare. Further research in Ayur genomics is essential to establish molecular validation of *Prakriti*-bases medicine.

REFERENCES

1. Vagbhata. Ashtanga Sangraha of Vagbhata, Sūtrasthāna 1/13–15 In: Ashtanga Sangraha of Vagbhata. Varanasi: Chaukhambha Orientalia, 2012; [[Google Scholar](#)].
2. Vagbhata. Ashtanga Hridaya of Vagbhata, Śārīrasthāna 3/87: 91. In: Ashtanga Hridaya of Vagbhata. Varanasi: Chaukhambha Krishnadas Academy, 2012; [[Google Scholar](#)].
3. Vagbhata. Ashtanga Hridaya of Vagbhata, Sūtrasthāna 1/7: 10 In: Ashtanga Hridaya of Vagbhata. Varanasi: Chaukhambha Krishnadas Academy, 2012; [[Google Scholar](#)].
4. Rasavaisheshika In: Shastri AD, editor. Rasavaisheshika sutra with commentary. Varanasi: Chaukhambha Bharati Academy, 2009; [[Google Scholar](#)].

5. Charaka In: Sharma RK, Dash B, editors. Charaka Samhita, Śārīrasthāna 3/4–13: Text with English translation and critical exposition based on Chakrapani Datta's Ayurveda Dipika. Varanasi: Chaukhambha Sanskrit Series Office, 2014; [[Google Scholar](#)].
6. Acharya YT, editor. Sushruta Samhita, Dalhana commentary. Sharirasthana. Ch 4, Ver. 62, Reprint ed. Varanasi: Chaukamba Sanskrit sansthan, 2009; p. 360.
7. Acharya YT, editor. Charaka Samhitha, Deepika commentary by Chakrapanidutta. Vimanasasthana. Ch 8, Ver. 95. Reprint ed. Varanasi: Chaukamba Surbharathi Prakashan, 2013; p.277.
8. Charaka. Charaka Samhita. Vimana Sthana 8/95. Translated by Sharma RK. Chowkhamba Sanskrit Series, Varanasi, 2015.
9. Acharya YT, editor. Sushruta Samhita, Dalhana commentary. Sharirasthana. Ch 5 Ver. 3. Reprint ed. Varanasi: Chaukamba Sanskrit sansthan 2009.
10. Acharya YT, editor. Charaka Samhitha, Deepika commentary by Chakrapanidutta. Vimanasasthana. Ch 8, Ver. 95. Reprint ed. Varanasi: Chaukamba Surbharathi Prakashan, 2013; p.277.
11. Agnivesa, charak samhita, vimansthan, Chapter 8, verses 95. revised by charak and Dridhabala. Editor prof. Priyavrat Sharma Vol. 1 p. 375.
12. Sushruta. Sushruta Samhita, Śārīrasthāna 4/63–67 In: The Sushruta Samhita with English translation. Editor G.D. Singhal. Varanasi: Chaukhambha Orientalia, p. 47[[Google Scholar](#)].
13. Sushruta. Sushruta Samhita, Śārīrasthāna 4/68–71 In: The Sushruta Samhita with English translation. Editor G.D. Singhal. Varanasi: Chaukhambha Orientalia, p. 47-48[[Google Scholar](#)].
14. Sushruta. Sushruta Samhita, Śārīrasthāna 4/62–76 In: The Sushruta Samhita with English translation. Editor G.D. Singhal .Varanasi: Chaukhambha Orientalia, p. 48-49[[Google Scholar](#)].
15. Charaka. Charaka Samhita. Vimana Sthana 8/95. Translated by Sharma RK. Chowkhamba Sanskrit Series, Varanasi, 2015.
16. Sushruta. Sushruta Samhita. Sutra Sthana 35/27. Translated by Srikantha Murthy KR. Chaukhamba Orientalia, Varanasi, 2014.
17. Vriddha Vagbhata, Ashtanga Sangraha with Sasilekha of Indu, edited by Ramachandrasastri Kinjavadekara. Srisatguru Publications, Delhi, Sareerasthana 2nd edition, 1990; Pp- 129: P No- 59.

18. Shankar D, Patwardhan B. AYUSH for New India: Vision and strategy. *J Ayurveda Integr Med.*, 2017; 8(3): 1379. <https://doi.org/10.1016/j.jaim.2017.07.001>
19. Rotti H, Raval R, Anchan S, et al. Determinants of prakriti, the human constitution types of Indian traditional medicine and its correlation with contemporary science. *J Ayurveda Integr Med.*, 2014; 5(3): 167–75. <https://doi.org/10.4103/0975-9476.139779>.
20. Govindaraj P, Nizamuddin S, Sharath A, et al. Genome-wide analysis correlates Ayurveda Prakriti. *PLoS One*, 2015; 10(9): e0138342. <https://doi.org/10.1371/journal.pone.0138342>.
21. Prasher B, Gibson G, Mukerji M. Genomic insights into Ayurvedic and modern medicine. *J Genet.*, 2016; 95(1): 209–28. <https://doi.org/10.1007/s12041-016-0631-1>
22. Rotti H, Bhat BK, Nargund V, et al. DNA methylation profiles of different Ayurvedic prakriti types. *Mol Cytogenet.*, 2015; 8: 88. <https://doi.org/10.1186/s13039-015-0191-7>
23. Tiwari S, Tripathi YB. Gene expression profiling reveals differential expression of genes in Kapha, Pitta and Vata constitution. *Ayu.*, 2011; 32(4): 494–9. <https://doi.org/10.4103/0974-8520.96135>.