# Relevance of Sharir Kriya in Disease Pathogenesis: An Integrative Review

\*1Dr. Bhupendra Pali, 2Dr. Ashok Kumar and 3Dr. Vinay Bhardwaj

#### Abstract

Ayurveda, this ancient science of life, essentially states that staying healthy is all about maintaining the perfect balance of your body's systems. It's not just some random theory—we're talking about a deep dive into how our bodies actually work. So, according to the old-school wisdom, our health depends on balancing these key elements: Doshas (energy types), Dhatus (body tissues), and Malas (waste products).

The truly remarkable aspect is how this entire system operates. Imagine your body like a super complex machine where everything's interconnected. Acharya Charaka, this legendary medical guru, explained that our body operates through an intricate dance of biological energies, structural components, and metabolic processes. When everything's working smoothly, you're golden. But when things get out of whack, that's when health problems start creeping in.

What's fascinating is how this ancient approach aligns perfectly with modern medical understanding. It's as if these Ayurvedic scholars figured out centuries ago what we're only now confirming with advanced science. They mapped out how tiny imbalances can trigger major health issues, breaking down exactly how our body's systems influence each other.

The key takeaway? Ayurveda isn't just about treating symptoms—it's about understanding the root causes of health and disease. Tracking how different bodily functions interact offers this exact, personalized approach to wellness. Pretty mind-blowing when you think about how advanced this perspective was, way before modern medical technology even existed.

Keywords: Sharir Kriya, Pathogenesis, Samprapti, Dosha-Dhatu-Mala, Agni, Ayurveda Physiology.

#### Introduction

Ayurveda, the ancient Indian system of life sciences, is built upon the profound understanding of human physiology and its relationship with health and disease. The term *Sharir Kriya* refers to the science that elucidates the normal functioning of the human body (*Sharira*) through various biological, psychological, and spiritual processes. It is the functional aspect of *Sharir Rachana* (anatomy) and serves as the foundation for understanding *Swasthya* (health) and *Vyadhi* (disease). Acharya Charaka defines health as the state in which the *Dosha*, *Dhatu*, *Agni*, and *Mala* are in equilibrium, and the mind, senses, and spirit are in a state of blissful harmony:

"समदोषः समाग्निश्च समधातु मलक्रियः। प्रसन्नात्मेन्द्रियमना स्वस्थ इत्यभिधीयते॥"

(Suśruta-samhitā: Sūtra-sthāna, 15.10)

This verse highlights the Ayurvedic perspective that the balanced functioning of *Sharir Kriya* parameters is synonymous with health. Conversely, disturbances in these physiological entities form the basis of disease pathogenesis

### (Vyadhi Samprapti).

The concept of Sharir Kriya is fundamental to the field of Ayurvedic medicine. Charaka, a key figure in this ancient tradition, articulates the principle that "Kriya Shariram Sharirasya Karmabhoota Vibhagaha," which translates to the idea that the body's functions are pivotal to determining its health and overall vitality. Essentially, it suggests that the activities and processes within the body are crucial for maintaining its equilibrium. In Ayurveda, the onset of disease, termed Vyadhi, is linked to disruptions in the body's normal physiological operations. These disturbances are primarily related to the interplay of three biological energies or doshas—Vata, Pitta, and Kapha—as well as the body's tissues (Dhatu) and waste products (Mala). When these elements are out of balance, it can lead to various health issues.

# "शरीरं खलु धर्मसाधनम"

This underscores the belief that the body serves as a medium for fulfilling our duties and that the functions it performs are fundamentally linked to our lifespan. In contemporary terms,

<sup>\*1</sup>Post Graduate Scholar, Department of Kriya Sharir, N.P.A. Government Ayurvedic College, Raipur, Chhattisgarh, India.

<sup>&</sup>lt;sup>2</sup>Assistant Professor & M.D., Department of Kriya Sharir, N.P.A. Government Ayurvedic College, Raipur, Chhattisgarh, India.

<sup>&</sup>lt;sup>3</sup>Associate Professor & M.D., Department of Kriya Sharir, N.P.A. Government Ayurvedic College, Raipur, Chhattisgarh, India.

modern physiology describes pathogenesis as the series of events leading from the initial cause (etiology) to the development of a disease. Ayurveda offers a corresponding concept known as Samprapti, which elucidates the progression of disease as a chain of functional disruptions. This begins at the most subtle levels, involving factors such as Agni (digestive fire), Srotas (body channels), and imbalances among the doshas. Each of these aspects contributes significantly to the body's overall state of health, and their disruption illustrates the holistic approach Ayurveda takes in understanding and treating diseases.

# **Aims and Objectives**

#### Aim

To elucidate the relevance of Sharir Kriya in understanding disease pathogenesis (*Vyadhi Samprapti*) through classical Ayurvedic concepts and to correlate these physiological principles with modern biomedical mechanisms, thereby establishing an integrative and predictive model of disease development.

# **Specific Objectives**

- i). To review classical Ayurvedic literature and commentaries describing the functional aspects of *Sharir Kriya*—including *Dosha*, *Dhatu*, *Mala*, *Agni*, *Srotas*, *Ojas*, and *Prana*—that contribute to health maintenance.
- ii). To analyze the pathophysiological process of Vyadhi

- Samprapti through Dosha–Dhatu–Mala interactions and identify early functional deviations responsible for disease initiation.
- iii). To establish conceptual and functional correlations between *Sharir Kriya* parameters and modern physiological systems such as metabolism, neuroendocrine regulation, and immune homeostasis.
- iv). To develop an integrative flow model demonstrating how an imbalance in *Sharir Kriya* components leads to clinical disorders, bridging Ayurvedic and modern perspectives of pathogenesis.

To highlight the predictive and preventive value of *Sharir Kriya* in early diagnosis, lifestyle modification, and personalized health management in alignment with the *Swasthasya Swasthya Rakshanam* principle

# Methodology

- **Design:** Conceptual review study.
- **Sources:** Classical Ayurvedic texts (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*), commentaries, and modern physiology literature.
- **Approach:** Comparative and analytical method integrating Ayurvedic and biomedical viewpoints.
- **Structure:** Presented using the IMRAD framework with tables and schematic flowcharts.

Aspect	Ayurvedic View	Modern Correlate	Short Explanation
Dosha	Vata, Pitta, and Kapha are the fundamental regulatory principles governing all physiological and psychological functions.	Neuro-endocrine- humoral regulation	Doshas maintain internal balance similar to how the nervous, endocrine, and hormonal systems coordinate body functions.
Dhatu	Seven body tissues (Rasa to Shukra) provide structure, nourishment, and support.	Body tissues and metabolic networks	Dhatus are comparable to tissues and biochemical systems responsible for growth, repair, and metabolism.
Mala	Excretory products (Purisha, Mutra, Sveda) maintain internal purity and balance.	Waste elimination and detoxification	Proper formation and elimination of malas ensure detoxification and metabolic homeostasis.
Agni	The digestive and metabolic fire transforms food into energy and tissues.	Enzymatic and mitochondrial metabolism	Agni symbolizes biochemical digestion and cellular energy production.
Srotas	Channels that transport nutrients, wastes, and vital energies throughout the body.	Circulatory and lymphatic systems	Srotas resemble body channels like blood vessels and lymphatics, facilitating exchange and transport.
Ojas & Prana	Represent vital essence, immunity, and life force.	Immunological and vitality markers	Ojas and Prana correspond to immune resilience, vitality, and overall well-being indicators.

In Ayurveda, the human body is governed by interconnected functional and structural principles that can be correlated with modern physiology. The Doshas—Vata, Pitta, and Kapha—represent the fundamental regulatory forces controlling all bodily and mental functions. These can be compared to the modern concepts of neuro-endocrine and humoral regulation, which maintain internal coordination and balance.

The Dhatus are the seven structural and nutritional tissues that sustain body integrity, analogous to the body's tissues and metabolic networks responsible for growth, repair, and nourishment. The Malas, or waste products such as urine, feces, and sweat, play a vital role in maintaining homeostasis by ensuring proper elimination and detoxification, similar to the body's excretory and waste management systems.

Agni, the digestive and metabolic fire, governs transformation processes—from digestion to cellular metabolism—and aligns closely with enzymatic and mitochondrial functions responsible for energy production.

The Srotas, or body channels, facilitate the transport and exchange of nutrients, wastes, and vital energies, corresponding to the circulatory and lymphatic systems in modern science.

Finally, Ojas and Prana represent the essence of vitality, immunity, and life force, paralleling the physiological markers of immunity and overall vitality. Together, these Ayurvedic concepts provide a holistic understanding of human physiology that integrates structural, functional, and energetic dimensions of health, complementing the modern scientific framework.

### **Dosha Dynamics in Pathogenesis**

*Vata*, *Pitta*, and *Kapha* act as functional regulators. Disease occurs when their equilibrium is disturbed:

• Vata: Governs motion and communication; its vitiation causes neurological, degenerative, and autoimmune diseases.

- **Pitta:** Controls metabolism and transformation; derangement leads to inflammatory and hepatic disorders.
- **Kapha:** Provides stability and lubrication; its aggravation causes metabolic and respiratory disorders.

Table 2: Dosha Dynamics in Pathogenesis

Dosha	Major Function	When Imbalanced → Disease Type
Vata	Nerve conduction, circulation	Degenerative, neuromuscular disorders
Pitta	Metabolism, thermoregulation	Inflammatory, hepatic, febrile disorders
Kapha	Growth, cohesion, stability	Obesity, congestion, diabetes

# Flowchart: Sharir Kriya Breakdown in Disease Pathogenesis

Hetu (Aharaja, Viharaja, Manasika)

↓
Agni Vaishamya → Ama formation
↓
Dosha Vaishamya (Functional imbalance)
↓
Srotodushti (Obstruction/Atipravrutti)
↓
Dhatu Kshaya or Vriddhi
↓
Ojas Kshaya → Vyadhi Utpatti

This schematic shows that the disease originates from Kriya imbalance, beginning with *Agni* and propagating through systemic pathways until *Ojas* (immunity) is compromised.

#### **Clinical Relevance**

- i). **Predictive Value:** Early detection through *Agni* and *Dosha* assessment helps prevent disease onset.
- **ii). Preventive Approach:** Maintenance of *Agni* and *Srotas* health through *Dinacharya*, *Ritucharya*, and *Ahara Vidhi*.
- iii). Therapeutic Application: Restoring Sharir Kriya via Shodhana, Rasayana, and Ahara-Vihara regulation.
- **iv). Integrative Insight:** Provides a physiological rationale for modern diseases such as diabetes, hypertension, and autoimmune disorders.

Table 3: Sharir Kriya and Modern Pathogenesis Correlation

Ayurvedic Concept	Modern Equivalent	Functional Correlation
Agni	Cellular metabolism, mitochondria	Energy regulation
Ama	Free radicals, toxins	Inflammatory mediators
Dosha Vaishamya	Neuro-hormonal imbalance	Dysautonomia
Srotodushti	Endothelial dysfunction	Microcirculatory changes
Ojas Kshaya	Immunodeficiency	Reduced vitality

## Discussion

Sharir Kriya offers a dynamic framework for understanding health and disease that looks beyond isolated organ failures. Instead, it sees disease as a disruption in coordinated systems: regulatory principles (Dosha), transformation processes (Agni), transport channels (Srotas), tissue integrity (Dhatus),

waste handling (Malas), and vitality reserves (Ojas/Prana). When mapped to modern biology, this holistic approach can actually deepen our mechanistic understanding by highlighting integration, timing, individual susceptibility, and regulation.

The core insight is how these systems interact. Think of Doshas like complex regulatory networks: Vata manages movement and signaling, Pitta handles metabolic activities, and Kapha maintains structural stability. When balanced, everything works smoothly; when disrupted, compensatory changes cascade through tissues and channels, creating disease. It's pretty similar to how modern systems medicine sees complex health problems—where inflammation, metabolic issues, or signaling breakdowns can trigger widespread consequences.

Take Agni, for instance—the concept of metabolic "fire." When it's compromised, you get Ama: partially transformed substances that can become toxic. Sound familiar? It's not far from how we now understand metabolic endotoxemia, mitochondrial dysfunction, or inflammatory protein formations. Interventions that restore Agni map directly onto strategies improving gut health, metabolic flexibility, and reducing inflammatory markers.

Clinically, Sharir Kriya supports personalized pathogenesis. Your constitutional tendency (Prakriti) and current imbalance (vikriti) explain why different people react differently to similar exposures. This aligns perfectly with precision medicine's understanding that genetics, life experiences, and personal factors determine health risks and responses.

The approach emphasizes upstream, low-risk interventions: targeted diets, daily and seasonal routines, behavioral practices, and mind-body techniques that reduce physiological stress. These strategies are basically lifestyle medicine—potentially improving prevention, chronic disease management, and overall quality of life.

However, bridging this traditional framework with contemporary science requires serious methodological rigor. Researchers need to:

- Create measurable variables for traditional concepts
- Design studies capturing complex dynamics
- Use advanced analytical methods
- Conduct comparative trials

#### Conclusion

Sharir Kriya, deeply rooted in Ayurveda, offers way more than just basic anatomy. It's a fascinating approach that looks at human physiology as this complex, dynamic system where everything's interconnected. Instead of seeing disease as a sudden hit, it views it as the result of gradual imbalances in key bodily principles like Dosha, Dhatu, and Prana.

When you line up these traditional concepts with modern science, something pretty cool happens—they actually sync up with how our neuro-endocrine systems work, how metabolism stays balanced, and how our immune responses function. It's like ancient wisdom was already tracking what cutting-edge medical research is just now discovering.

What's really interesting is how Sharir Kriya bridges traditional and contemporary understanding of health. It's not just about treating symptoms, but understanding how body, mind, and environment are totally linked. Plus, it highlights those early warning signs of potential health issues—which sounds a lot like what modern predictive medicine is all about.

The practical side is just as compelling. Ayurvedic recommendations for diet, lifestyle, and mind-body practices

line up remarkably well with today's evidence-based health approaches. It's basically saying that what we eat, how we live, and how we manage stress are critical to staying healthy. Bottom line, Sharir Kriya isn't just an old-school medical concept—it's a sophisticated framework that could seriously upgrade how we understand health. The next big step? Translating these classical insights into scientific language that researchers can actually test and validate. Imagine combining centuries of wisdom with modern medical research—that could be a game-changer for healthcare.

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