

## Understanding Agni: Physiological Significance in Ayurvedic Metabolism

Avinash Kumar Mishra<sup>1\*</sup>, Rajib Lochan Dash<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Samhita & Sidhanta, Swami Raghavendracharya Tridandi Ayurved Mahavidyalaya & Chikitsalaya, Gaya, Bihar, India

<sup>2</sup>Principal, Swami Raghavendracharya Tridandi Ayurved Mahavidyalaya & Chikitsalaya, Gaya, Bihar, India

### Corresponding Author:

Avinash Kumar Mishra,

Email ID: [avinashmishraa53@gmail.com](mailto:avinashmishraa53@gmail.com)

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### ABSTRACT

In Ayurveda, **Agni**—the body's metabolic fire—is fundamental to digestion, transformation, and tissue nourishment. This review delineates its complex nature, highlighting three primary types: **JatharAgni**, **BhutAgni**, and **DhatvAgni**. **JatharAgni**, located in the gastro-duodenal region, initiates the breakdown of food and governs the functionality of all downstream **Agnis**. Its state—from balanced (**Samagni**) to imbalanced modes such as **VishamAgni**, **TikshnAgni**, and **MandAgni**—directly influences metabolic efficiency and correlates with specific dosha-driven disorders. Following its action, **BhutAgni**, the elemental fires embedded in each of the five primordial elements, process digested food to match the body's own elemental makeup. Finally, seven **DhatvAgni**—each associated with one of the body's tissues—ensure precise nutrient assimilation and tissue maintenance. Maintaining optimal **Agni**, especially **JatharAgni**, through proper diet and lifestyle is crucial for health, vitality, and longevity. Understanding its diverse manifestations underscores Ayurveda's nuanced approach to metabolic regulation and disease prevention.

**Keywords:** Agni, Digestive fire, JatharAgni, BhutAgni

### 1. INTRODUCTION

The timeless wisdom of Ayurveda is encapsulated in a robust classical literature, most notably the Bṛhatrayi *Caraka Samhita*, *Susruta Samhita*, and *Aṣṭanga Sangraha*—along with the Laghutrayi texts: *Madhava Nidana*, *Sarangadhara Samhita*, and *Bhavaprakasa Samhita*, which are revered as the most authoritative sources. Originating in the Vedas, Ayurveda is the ancient Indian system of life sciences and medicine, grounded in its own distinctive physics, biology, holistic health and disease paradigms, and diagnostic techniques—fundamentally different from modern science. Its understanding of the human body, pathology, and diagnosis is rooted in unique theories such as *Triguna* (*sattva*, *rajas*, *tamas*), *Tanmatra*, the five great elements (*pancamahabhuta*), *Tridoṣa* (*vata*, *Pitta*, *Kapha*), and *Agni*. Nutrition in Ayurveda includes not only solids and liquids but also linctus and masticables, all considered wholesome when untainted and consumed in proper quantity. The metabolic transformation of food occurs in stages: **JatharAgni** initiates breakdown, **BhutAgni** refines it based on elemental qualities, and **DhatvAgni** completes its assimilation into tissues. The resulting nutrients circulate through the body's channels (*srotas*), propelled by *vata*, fostering tissue development, strength, complexion, happiness, and growth. As long as tissues receive their specific nourishment, they remain in balance. Central to both health and disease is **JatharAgni**, which, when balanced, supports longevity, vitality, complexion, strength, immunity (*ojas*), body temperature, and the function of **BhutAgni** and **DhatvAgni**. Thus, the state of **Agni**—especially **JatharAgni**—ultimately governs the health or disease status of the body.<sup>1</sup>

### 2. MATERIALS AND METHODS

This section draws upon a comprehensive review of classical Ayurvedic literature. Relevant materials on *kala* (time), **Agni** (digestive/metabolic fire), and associated themes were systematically gathered and organized. The study's primary sources include foundational texts such as the *Caraka Samhita*, *Susruta Samhita*, *Aṣṭanga Sangraha* and *Hṛdaya*, along with *Bhavaprakasa* and *Yogaratanakara*. It also incorporates insights from Paramesvarappa's *Ayurvediya Vikṛti Vijnana* and *Roga Vijnana*, key commentaries on the Samhitās, and recent scholarly articles.

## Review of Agni

### 1. Agni in Ayurveda:

Ayurveda regards **Agni**—the metabolic fire—as the cornerstone of digestion and metabolism. From the moment we consume food, **Agni** is responsible for breaking it down, absorbing nutrients, and assimilating them into the body—processes essential for sustaining life. By transforming food into energy, **Agni** powers all vital bodily functions. According to Charaka, life ends when **Agni** stops, whereas a balanced (*sama*) **Agni** ensures robust health, longevity, and happiness. Conversely, when **Agni** becomes impaired, it disrupts metabolism and lays the foundation for disease, making it the true root of life. In the **Brahmasutra**, **Agni** is portrayed as the living spark within the body that travels through all parts, converting matter, burning impurities, facilitating assimilation, illuminating, and fostering growth. Acting as the central force, **Agni** influences all factors that maintain health, provoke illness, or lead to decay. Thus, Ayurveda sees **Agni** not merely as physical heat, but as the dynamic, life-giving energy essential to digestion, metabolism, vitality, and well-being.

According to *Sabdakalpadruma*, there are sixty-one synonyms for **Agni**, each highlighting different qualities and roles of this vital metabolic fire—for example, *Vaishvanara*, *Sarva Paka*, *Tanoonpata*, *Amivacana*, *Vishwambhara*, *Rudra*, and others. These various names capture the multifaceted nature and diverse functions of **Agni**.<sup>2</sup>

### 2. Pitta & Agni:

**Pitta**—whose name stems from the Sanskrit root *tap*, meaning "to heat"—acts as the body's internal metabolic fire. It digests food, generates warmth, and maintains skin tone and vitality.<sup>3</sup> Ayurveda presents differing views on whether **Pitta** itself is **Agni** or merely reflects its qualities. According to Sushruta, **Agni** does not exist separately; substances and therapies that either amplify or cool heat demonstrate that **Pitta** embodies **Agni**'s functions. Marichi concurs, noting that the fire within **Pitta** yields either health or disease depending on its balance.<sup>4</sup> Chakrapani explains that **Pitta** doesn't literally burn but provides heat in the manner of **Agni**, while Hemadri adds that **Pitta** consists of five elemental subtypes located between the stomach and large intestine. In summary, **Pitta** represents the internal manifestation of **Agni**—essential for digestion, metabolism, heat generation, and overall physiological balance.

Dominated by the fiery *tejas* element, **Pachaka Pitta**, while fluid in nature, lacks the liquidity, oiliness (*snigdha*), and coolness (*sita*) associated with the water element (*apa*). Known as "Anala" (fire) due to its digestive (*paka*) role, it "cooks" food by separating its nourishing essence from waste. Located in the digestive tract, **Pachaka Pitta** supports other local **Pittas** and the tissue-specific metabolic fires (*dhatu-Agni*) by enhancing their function—hence its name, which translates to "digestive **Pitta**".<sup>5</sup>

Ayurvedic classics offer many examples supporting the idea that **Pitta** and **Agni** are one and the same, yet certain observations raise questions about this equivalence. For instance, consuming pungent or warming foods—known as *katu* and *vidahi*—often weakens digestion (**Agni**) instead of intensifying it, which is counterintuitive if **Pitta** truly embodied **Agni**. Another telling example is that ghee, while it soothes **Pitta**, actually stimulates **Agni**. Furthermore, the saying attributed to Sushruta—"samadoshah samagnischa"—explicitly differentiates neutralized doshas (including **Pitta**) from the metabolic fire, indicating that **Pitta** and **Agni** are not identical. These contrasting scenarios suggest that although **Pitta** and **Agni** overlap in function, they cannot be equated completely.

### 3. Classification of Agni:

**Agni** is considered countless due to its presence in every *dhatu paramanu* (cell) of the body. However, classical Ayurvedic texts differ in how they classify and enumerate **Agni**. According to Charaka, there are thirteen types: one *JatharAgni* (digestive fire in the stomach), five *BhutAgnis* (elemental fires corresponding to the five Mahabhutas), and seven *DhatvAgnis* (metabolic fires in each body tissue).<sup>6</sup> Sushruta identifies five primary types: *PachakAgni*, *RanjakAgni*, *AlochakaAgni*, *SadhakAgni*, and *BhrajakAgni*.<sup>7</sup> Though not explicitly named, he also alludes to the five *BhutAgnis* in his explanation of food transformation.<sup>8</sup> Vagbhata provides a broader classification that includes *AudarAgni* (digestive fire), five *BhutAgnis*,<sup>9</sup> seven *DhatvAgnis*, three *Dosha-Agnis*, three *MalAgnis*<sup>10</sup> (related to excretory functions), and five types of **Pitta**. Sharangadhara limits his recognition to five **Pittas**—*Pachaka*, *Bhrajak*, *Ranjak*, *Alochaka*, and *Sadhaka*.<sup>11</sup> Bhavamishra aligns his views with those of Charaka and Vagbhata.<sup>12</sup> In essence, **Agni** is categorized into thirteen main types based on their roles and locations: one *JatharAgni* in the gastrointestinal tract, five *BhutAgnis* corresponding to the five elements, and seven *DhatvAgnis*, each associated with one of the body's seven tissues.

**JatharAgni**, the primary digestive fire in Ayurveda, is located in the *jathara*—referring to the stomach and duodenum. As described in *Ashtanga Hridaya*, its seat is the *grahani* (duodenum), named so because it temporarily holds the food within the *amasaya* (stomach), allowing digestion to occur effectively. According to Dhanvantari, this **Agni** is identified with a *kala* called **Pittadhara**, situated at the opening of the small intestine (*pakvashaya*), functioning like a gatekeeper to regulate the movement of food. *JatharAgni* is vital for sustaining life, maintaining health, enhancing vitality, supporting *ojas* (the essence of bodily tissues), and ensuring the efficiency of all *BhutAgnis* and *DhatvAgnis*. There exists a reciprocal relationship—**Agni** provides strength to *grahani*, and *grahani*, in turn, supports **Agni**. When **Agni** becomes disturbed, *grahani* is affected, leading to various diseases.<sup>13</sup>

*JatharAgni* is regarded as the most crucial among all types of *Agni* because it is the first to act on ingested food. It breaks down food made from the five basic elements and transforms it into usable nutrients for the *dhatus* (tissues). It also plays a key role in differentiating between the nutritive essence (*prasad*) and waste products (*kitta*) in the body.<sup>14</sup> Its proper function directly influences the activity of *DhatvAgni*—the cellular metabolic fire responsible for tissue metabolism or *dhatu paka*. If *JatharAgni* becomes too intense (*Tikshna*) or too weak (*Manda*), it disturbs the activity of the tissue-specific *Agnis*, ultimately resulting in imbalances or diseases.<sup>15</sup>

*JatharAgni* governs all other 12 forms of *Agni* in the body, making it the central force of metabolism. Its proper function is fundamental to maintaining metabolic balance and health. Based on its performance, *JatharAgni* is classified into four types: **Samagni** (balanced), **TikshnAgni** (sharp), **MandAgni** (weak), and **VishamAgni** (irregular).<sup>16</sup> As per *Hareet Samhita*, *Samagni* occurs when all three doshas—*Vata*, *Pitta*, and *Kapha*—are in balance. A dominance of *Pitta* leads to *TikshnAgni*, while elevated *Vata* and *Kapha* result in *MandAgni*.

**BhutAgni** represents the digestive fire tied to each of the five fundamental elements—Earth (*Prithvi*), Water (*Ap*), Fire (*Tejas*), Air (*Vayu*), and Ether (*Akasha*). Since our cells (*dhatu paramanu*) are composed of these elements, each cell carries its own elemental *Agni*. Likewise, the food we ingest mirrors these same elemental qualities and their metabolic energies. Once *JatharAgni* has performed the initial breakdown in the stomach and duodenum, the *BhutAgnis* take over, processing the elemental components of the food, transforming them into forms that align with the body's own elemental makeup—much like how the liver handles nutrient transformation in modern physiology.<sup>17</sup>

**DhatvAgni**, by contrast, refers to the metabolic fire within each of the body's seven tissues (*dhatus*): plasma (*Rasa*), blood (*Rakta*), muscle (*Mamsa*), fat (*Meda*), bone (*Asthi*), marrow (*Majja*), and reproductive tissue (*Shukra*). Each tissue possesses its own *Agni* that selectively metabolizes nutrients delivered via its channels (*srotas*), synthesizing constituents tailored to that specific tissue. In this way, *DhatvAgni* ensures that each tissue is nourished and maintained, converting basic nutrients into tissue-specific components.<sup>18</sup>

#### 4.Role of *JatharAgni*:

*JatharAgni*, the principal digestive fire in Ayurveda, holds a central position in maintaining overall metabolic balance. All other *Agnis*—including *BhutAgni* (elemental fires) and *DhatvAgni* (tissue-level fires)—derive their strength and functionality from a well-balanced *JatharAgni*. If *JatharAgni* becomes either overly intense or weak, it disrupts the functioning of these downstream *Agnis*, leading to metabolic imbalances and disease. Consequently, preserving *JatharAgni* through a suitable, wholesome diet and healthy lifestyle is crucial, as true longevity and vitality hinge on its optimal state. In contrast, indulgence in impure or unsuitable foods—especially driven by greed—can overload the digestive system, impair the *grahani*, and invite disease.<sup>19</sup>

#### 5.Discussion on the four physiological and pathological states of *Agni*:<sup>20,21,22,23</sup>

*Agni*, the metabolic fire, manifests in four distinct states that reflect its functional balance—or imbalance—in the body. *Samagni* is the ideal, balanced form: it efficiently and timely digests and assimilates food, promoting strong, healthy tissues and overall well-being. *VishamAgni*, influenced by *Vata*, behaves erratically—sometimes digesting food properly, other times not—resulting in symptoms like gas, abdominal pain, fluctuating bowel habits, and general digestive discomfort. *TikshnAgni* is characterized by overly intense, rapid digestion regardless of the food type; this leads to excessive hunger, dryness in the throat and mouth, and a burning internal sensation, often paving the way for inflammatory (*Pitta*-based) issues. *MandAgni*, on the other hand, is marked by sluggish digestion under the dominance of *Kapha*. Even small meals are processed slowly, causing feelings of heaviness in the abdomen and head, along with symptoms like cough, breathlessness, excessive salivation, vomiting, and overall weakness. Each of these states originates from one or more predominant doshas and can lead to distinct metabolic and health disturbances.

### 3. CONCLUSION

*Agni* emerges as the central force in Ayurvedic physiology, orchestrating digestive, metabolic, and cellular processes throughout the body. Of its many manifestations, *JatharAgni* stands supreme, initiating food breakdown and determining the performance of all downstream *Agnis*—including elemental *BhutAgni* and tissue-specific *DhatvAgni*. The equilibrium of *JatharAgni* is therefore pivotal: when balanced (*Samagni*), it supports vitality, robust tissue health, and harmonious digestion. Deviations, however, lead to distinctive metabolic imbalances—*VishamAgni* (irregular digestion), *TikshnAgni* (excessively fast digestion), or *MandAgni* (sluggish digestion)—each closely tied to the dominant dosha and associated with specific disorders. Effective Ayurvedic practice, then, depends on nurturing and preserving optimal *Agni* through tailored diet, mindful habits, and supporting practices. By maintaining *Agni*'s balance, one lays the foundation for nourishing the tissues, promoting longevity, and preventing disease—a testament to Ayurveda's profound understanding of life's metabolic core.

## REFERENCES

- [1] Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, Chikitisa Sthan; *Grahani* Dosa Adhyaya. Varanasi: Chaukhamba Krishnadas Academy; 2009. Edition 1, Vol IV. p 1-2.
- [2] Deva RR, editor. Shabdakalpa Druma. Delhi: Nag Publishers Jawahar Nagar; 1988. Edition 1, Vol I. p 8.
- [3] Sharma PV, editor. Sushruta Samhita of Dalhana, Sutrasthana; Vranaprashna Adhyaya. Varanasi: Chaukhamba Vishvabharati, Oriental Publishers and Distributors; 2010. Edition 1, Vol I. p 225.
- [4] Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, Sutra Sthan; *Vatakalakaliy* Adhyaya. Varanasi: Chaukhamba Krishnadas Academy; 2009. Edition 1, Vol I. p 240-41.
- [5] Upadhyaya Y, editor. Astangahrdaya of Vagbhata, Sutra Sthan; Dosabhedeeya Adhyaya. Varanasi: Chaukhambha Prakashan; 2007. Edition 1. p 90-91.
- [6] Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, Chikitisa Sthan; *Grahani* Dosa Adhyaya. Varanasi: Chaukhamba Krishnadas Academy; 2009. Edition 1, Vol IV. p 3-10.
- [7] Sharma PV, editor. Sushruta Samhita of Dalhana, Sutrasthana; Vranaprashna Adhyaya. Varanasi: Chaukhamba Vishvabharati, Oriental Publishers and Distributors; 2010. Edition 1, Vol I. p 227.
- [8] Sharma PV, editor. Sushruta Samhita of Dalhana, Sutrasthana; Anapanvidhi Adhyaya. Varanasi: Chaukhamba Vishvabharati, Oriental Publishers and Distributors; 2010. Vol I. p 561.
- [9] Upadhyaya Y, editor. Astangahrdaya of Vagbhata, Sutra Sthan; Dosabhedeeya Adhyaya. Varanasi: Chaukhambha Prakashan; 2007. Edition 1. p 90-91.
- [10] Upadhyaya Y, editor. Astangahrdaya of Vagbhata, Sharir Sthan; Angvibhagsharir Adhyaya. Varanasi: Chaukhambha Prakashan; 2007. Edition 1. p 188-89.
- [11] Srivastava S, editor. Sharngadhar Samhita of Acharya Sharngadhar, Purva Khand; Kaladikakhyanam. Varanasi: Chaukhambha Orientalia; 2005. Edition 1. p 41-42.
- [12] Misra B, Vaisya R. In: Misra B, Vaisya R, editors. Bhavaprakasa of Bhava Misra, Garbhaprakarnam, chapter 3, verses 121–123. 11th edition, volume I. Varanasi: Chaukhambha Sanskrit Bhawan; 2010. p 37–39.
- [13] Upadhyaya Y. In: Upadhyaya Y, editor. Astangahrdaya of Vagbhata, Sharir Sthan, Angvibhagsharir Adhyaya, chapter 3, verses 50–54. 1st edition. Varanasi: Chaukhambha Prakashan; 2007. p 188–189.
- [14] Upadhyaya Y. In: Upadhyaya Y, editor. Astangahrdaya of Vagbhata, Sharir Sthan, Angvibhagsharir Adhyaya, chapter 3, verse 61. 1st edition. Varanasi: Chaukhambha Prakashan; 2007. p 189.
- [15] Sharma RK, Das VB. In: Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, volume IV, Chikitisa Sthan, *Grahani* Dosa Adhyaya, chapter 15, verses 39–40. 1st edition. Varanasi: Chaukhamba Krishnadas Academy; 2009. p 22–23.
- [16] Sharma RK, Das VB. In: Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, volume IV, Chikitisa Sthan, *Grahani* Dosa Adhyaya, chapter 15, verses 50–51. 1st edition. Varanasi: Chaukhamba Krishnadas Academy; 2009. p 27.
- [17] Sharma RK, Das VB. In: Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, Chikitisa Sthan, *Grahani* Dosa Adhyaya, chapter 15, verses 13–14. Volume IV, 1st edition. Varanasi: Chaukhamba Krishnadas Academy; 2009. p 9–10.
- [18] Sharma RK, Das VB. In: Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, Chikitisa Sthan, *Grahani* Dosa Adhyaya, chapter 15, verses 15–16. Volume IV, 1st edition. Varanasi: Chaukhamba Krishnadas Academy; 2009. p 10–11.
- [19] Byadgi PS. Ayurvediya Vikrti Vigyan & Roga Vigyan. Volume I, 1st edition. New Delhi: Chaukhambha Publications; 2009. p 74.
- [20] Sharma RK, Das VB. In: Sharma RK, Das VB, editors. Caraka Samhita of *Agnivesa*, Chikitisa Sthan, *Grahani* Dosa Adhyaya, chapter 15, verses 50–51. Volume IV, 1st edition. Varanasi: Chaukhamba Krishnadas Academy; 2009. p 27.
- [21] Byadgi PS. Ayurvediya Vikrti Vigyan & Roga Vigyan. Volume I, 1st edition. New Delhi: Chaukhambha Publications; 2009. p 76–77.
- [22] Sharma PV. In: Sharma PV, editor. Sushruta Samhita of Dalhana, Sutrasthana, Aturupkramneeya Adhyaya, chapter 35, verses 24–25. Volume I, 1st edition. Varanasi: Chaukhamba Vishvabharati; Oriental Publishers & Distributors; 2010. p 334–335.
- [23] Upadhyaya Y. In: Upadhyaya Y, editor. Astangahrdaya of Vagbhata, Sharir Sthan, Angvibhagsharir Adhyaya, chapter 3, verse 76. 1st edition. Varanasi: Chaukhambha Prakashan; 2007. p 191–192