

**CONCEPT OF AGNI (DIGESTIVE FIRE) IN AYURVEDA: A REVIEW**

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**ABSTRACT**

The *Ayurvedic* concept of *Agni* is one of the most contribution to healthcare system. *Agni* is the biological fire that governs the process of metabolism in the body. It powers the transformation of one substance into another. *Agni* encompasses all the changes in the body and mind from the dense to the subtler. *Agni* is found in the alimentary canal and digests food. The main function of *Agni* is the promotion of process of digestion. Therefore, the digestive abilities are related to the strength of *Agni*. Maximum number of diseases is directly or indirectly related to the improper functioning of *Agni*. It is responsible for neutralizing toxins, bacteria and viruses that hinders with the

functioning of immune system. According to the functions and site of action *Agni* has been divided into 3 types i.e. one *Jathragni*, 5 *Bhutagni* and 7 *Dhatvagni*. *Jathragni* is the most important one, which digest four types of food and transforms it into Rasa & Mala. An attempt has been made to describe the concept of *Agni* in *Ayurveda* in this article.

**KEYWORDS:** *Agni*, *Jathragni*, *Dhatvagni*, *Bhutagni*.

**INTRODUCTION**

*Agni* is the invariable agent in the process of *Paka* (digestion, transformation).

*Agni* is responsible for strength, health, longevity and *Ahara matra* (quantity of food) also depends on *Agni*.<sup>[1]</sup> Different examples are available in our classics to indicate that *Pitta* is the same as *Agni*, but some doubt arises behind this concept, that *Pitta* is *Agni*. *Agni* is innumerable because of its presence in each and every paramanu of the body. But, the enumeration of the number of *Agni* varies in various classical *Ayurvedic* texts. According to the functions and site of action, *Agni* has been divided into 13 types, i.e. one *Jatharagni*, five *Bhutagni* and seven *Dhatvagni*. *Jatharagni* is the most important one, which digests four types of food and transforms it into *Rasa* and *Mala*. The five *Bhutagni* act on the respective *bhutika* portion of the food and thereby nourish the *Bhuta* in the body. The seven *Dhatvagni* act on the respective *Dhatu* by which each *Dhatu* is broken into three parts. In this way, the entire process of transformation consists of two types of products – *Prasad* (essence) and *Kitta* (excrete). The former is taken for nourishment while the latter one is thrown out, which otherwise defiles the body if it stays.

*Ayurveda* has described an important factor of digestion and metabolism in our body as *Agni*. Ingested food is to be digested, absorbed and assimilated, which is unavoidable for the maintenance of life, and is performed by *Agni*. In *Ayurveda*, the term “*Agni*” is used in the sense of digestion of food and metabolic products.

*Agni* converts food in the form of energy, which is responsible for all the vital functions of our body. Therefore, *Ayurveda* considers that *Dehagni* is the cause of life, complexion, strength, health, nourishment, lusture, *oja*, *teja* (energy) and *prana* (life energy).<sup>[2]</sup>

About the importance of *Agni*, *Acharya Charak* has mentioned that after stoppage of the function of *Agni*, the individual dies, and when the *Agni* of an individual is *Sama*, then that person would be absolutely healthy and would lead a long, happy, healthy life. But, if the *Agni* of a person is vitiated, the whole metabolism in his body would be disturbed, resulting in ill health and disease. Hence, *Agni* is said to be the base (*Mool*) of life.<sup>[3]</sup>

According to modern medicine, metabolic processes, division and multiplication are going on in all cells (*Dhatu Paramanu*) of our body from birth till death. The cell is the functional unit of the body. According to *Charak*, the constituent parts of the body, if further divided into the atoms, are sure to become innumerable, as such cells or atoms are exceedingly numerous, very minute and ultrasensory. In the conjunction and disjunction of cells, the activating factors are *Vata* and the nature of action.<sup>[4]</sup> In *Shushrut*, we can see how the “*Avayavaa*” are

formed from “various *Dhatu*”.<sup>[5]</sup> Thus, based on *Charak* and *Shushrut*, the above cells can be considered as “*Dhatu paramanus*.” For these constant processes in all cells, a biological energy is constantly essential, without which the survival of our body will be impossible. The same biological energy is provided by *Agni* in *Ayurveda*. This *Agni* provided biological energy in the cells (*Dhatu paramanu*) of our body is of two types: potential and kinetic.

The study of *Agni* can be summarized according to the following points:

1. General description of *Agni* in various *Ayurvedic* texts.
2. Normal physiological function of different types of *Agni*.

In *Brahmasutra*, *Agni* is a sign of life in the body. Great value of *Agni* has been shown in classical literature. *Acharya Yasaka* has given the etymology of the term “*Agni*,” which is as follows: *Agni* = A + G + Ni. The word “A” denotes root “I,” meaning “to go”; “G” denotes the root “Anja,” meaning “to glitter” or root “daha,” meaning “to burn” and “Ni” means “to carry.” The etymology given by *Yasaka*, *Shankaracharya (vedantasutra shabda kalpa druma)* illustrates that *Agni* carries everything in it. It moves everywhere and metamorphoses substances, burns, assimilates, glitters and grows. *Agni* is a pivot around which the remaining factors responsible for the maintenance of health and causation of disease as well as decay revolve (*Shabdakalpadrum*).

In *Shabdakalpa druma*, 61 synonyms of *Agni* have been compiled. These synonyms help in explaining the nature and functions of the *Agni*, e.g., *Vaishvanara*, *Sarva Paka*, *Tanoonpata*, *Amivachatana*, *Damunasa*, *Shuchi*, *Vishwambhar*, *Rudra* etc.

### ***Agni* as *Pitta*?**

The origin of *Pitta* is from “*Tapa*,” which means: (1) combustion/ digestion – to give nourishment to the body by digestion of ingested food, (2) to maintain heat – by means of heat, it maintains the color, lusture, etc. of the body.<sup>[6]</sup>

Now, there is a question as to whether *Pitta* and *Agni* are the same or different? Does any area exist of *Agni* without *Pitta*, or is it that *Pitta* is *Agni*? This should be clearly understood. Different views have been suggested regarding *Pitta* and *Agni* by different *Acharya*. Some *Acharya* consider *Pitta* to be *Agni* while others speak differently.

According to *Acharya Sushruta*, there is no existence of any other *Agni* in the body without *Pitta*, because when there is increased digestion and combustion in the body due to *Ushna*

guna of *Pitta*, the treatment is like *Agni*.<sup>[7]</sup> *Acharya Marichi* has also emphasized that the *Agni* present in the *Pitta* gives good or bad results when it is normal or vitiated.<sup>[8]</sup>

*Chakrapani* has commented on “*Pittantargatta*,” that the function of *Pitta* inside the body is not combustion but its work is to provide heat of *Agni*. Besides this, *Acharya Shusrut* has described five types of *Agni* as the variety of *Pitta*. *Acharya Bhoj* also considered *Pitta* as *Agni*, digestive fire is included within *Agni*, which is specially meant for different enzymatic activities of the body, i.e. *Pachana*, *Deepan*, *Bhedana*, etc.<sup>[9]</sup>

According to *Hemadri*, *Pitta* is of five divisions, which are located in the interior of the *Pakvashaya* and *Amashaya*, although it is composed of *Panchabhuta*. Because of an increase of (predominance qualities of) *Tejas Bhuta*, it is devoid of liquidity (although it is a liquid). Also, because it does not possess *Snigdha* (viscosity), *Shita* and such other properties of *Apa Bhuta*, it is called “*Anal*” because of its function of *Paka*. It cooks the food, dividing it into essence and waste separately. Being localized there, it bestows grace (help) to the other *Pitta* present there and also the other *Dhatvagni* present in the *Dhatu* by giving them strength (power of functioning), which is known as “*Pachaka Pitta*”.<sup>[10]</sup>

Different examples are available in the classics to indicate that *Pitta* is the same as *Agni*. But, some doubts arise behind the concept of whether *Pitta* is *Agni*.

- Why indulgence of aggravating factors like *Katu*, *Vidahi*, etc. reduces the strength of *Agni* instead of enhancing it.
- Appropriate examples to highlight the above concept that ghee alleviates *Pitta* but enhances *Agni*.
- The quotation of *Acharya Sushruta*, *Samadoshah Samagnishcha*<sup>11</sup> has clearly indicated that *Pitta* and *Agni* are not the same.

**Functions of Agni-** (*Lad, Vasant. Textbook of Ayurveda Volume I: Fundamental Principles of Ayurveda*)

#### ***Agni* governs**

- Transformation
- Digestion, absorption, assimilation
- The creation of digestive enzymes
- All metabolic activities

- Strength and vitality
- Tissue nutrition
- The production of *Ojas*, *Tejas*, and *Prana*
- Skin color, complexion, glow, and luster
- The maintenance of body temperature
- Mental clarity
- Intelligence
- Sensory perception (especially visual perception)
- Flow of cellular communication
- Alertness, affection, and enthusiasm for life
- Courage and confidence
- Joy, laughter, and contentment
- Discrimination, reason, and logic
- Patience, stability, and longevity

#### ❖ **Healthy Agni**

When *Agni* is balanced, it tends to support strong immunity, and a long, healthy life. Balanced *Agni* also adds a certain fragrance to our lives—a zest for living that makes the whole experience more enjoyable. The cardinal signs of balanced *Agni* include<sup>[5]</sup>

- Normal appetite (Note: healthy hunger involves lightness, clarity, and a pleasant anticipation of food, but not an urgent need to eat)
- Clean tongue (no coating)
- Proper appreciation of taste
- Good digestion, balanced metabolism
- Can digest a reasonable quantity of any food without issue
- Proper (and regular) elimination
- Complete absence of nausea (or suppressed appetite)
- Easily maintains homeostasis
- Stable health
- Steady weight
- Normal blood pressure
- Good immunity
- Sound sleep
- High energy, strong vitality

- Surplus of *Ojas*, *Tejas*, and *Prana*
- Calm mind
- Clear perception
- Courage, lucidity, and intelligence
- Cheerfulness, optimism, and enthusiasm
- Love of life
- Natural longevity

#### ❖ Impaired *Agni*

The strength of *Agni* is inevitably affected when its qualities are muted by a poor diet, improper food combinations, an unsupportive lifestyle, emotional disturbances, or even damp, rainy weather. If we can learn to recognize and address imbalances with *Agni* relatively quickly, the effects need not be long lasting. Otherwise, they will undoubtedly lead to ill health and disease. Here are some important warning signs that *Agni* is not operating at full strength. (*Lad, Vasant. Textbook of Ayurveda, Volume II: A Complete Guide to Clinical Assessment*)

- Emotional disturbances, with an increased tendency toward fear, anxiety, anger, confusion, lethargy, or depression.
- Low energy, weakness, or fatigue
- Suppressed or over-active appetite
- Indigestion: gas, bloating, constipation, nausea, hyperacidity, loose stools, a sense of heaviness, feeling tired or mentally foggy after meals.
- A tendency toward congestion in the sinuses, the lymph, or even the mind.

While these disturbances can be short-lived or chronic, the impaired digestive process inevitably leads to the accumulation of wastes, the vitiation of the *Dosha* (*Vata*, *Pitta*, and *kapha*), and the stagnation of emotions. Unfortunately, these are all causative factors in the formation of *Ama*, a toxic residue that is capable of completely disrupting our health and well-being.

#### Types of *Agni*

*Agni* is innumerable because of its presence in each and every *dhatu paramanu* (cell) of the body. But, enumeration of the number of *Agni* varies in various classical *Ayurvedic* texts, as shown below.

- *Charaka* mentioned about 13 *Agni*. *Jatharagni* – 1, *Bhutagni* – 5, *Dhatvagni* – 7.<sup>[12]</sup>

- According to *Acharya Sushruta*, five types of *Agni* are illustrated, viz. *Pachakagni*, *Ranjakagni*, *Alochakagni*, *Sadhakagni* and *Bhrajakagni*. However, there is an indirect reference of five *Bhutagni* underlying in the brief description made to the transformation of foodstuff.<sup>[13]</sup>
- *Vagbhata* has described different types *Agni*, viz. – *Bhutagni* – 5, – *Dhatvagni* – 7, – *Dhoshagni*–3 and *Malagni*–3.
- *Sharangadhara* has recognized five *Pitta* only (*Pachak*, *Bhrajak*, *Ranjak*, *Alochaka* and *Sadhak*).<sup>[14]</sup>
- *Bhavamishra* has followed *Acharya Charaka* and *Vagbhata*.<sup>[15]</sup>

*Agni* has been divided into 13 types according to the function and site of action. These are:

1. *Jatharagni* – one *Agni* present in the stomach and duodenum.
2. *Bhutagni* – five *Agni* from five basic elements.
3. *Dhatvagni* – seven *Agni* present, one in each of the seven *Dhatu*. Accordingly, they are classified into three groups, namely *Jatharagni*, *Bhutagni* and *Dhatvagni*.

### 1. Jatharagni

*Jatharagni* is the *Agni* or bioenergy present in the *Jathara* (stomach and duodenum). According to *Ashtanga Hridaya*, *Jatharagni*, the seat is *Grahani* (duodenum), so called because it withholds the food for a certain time inside the *Amasaya* (stomach) to facilitate digestion. In the opinion of *Dhanvantari*, it is the Kala known as “*Pittadhara*,” situated at the entrance of the *Pakvashaya* (intestine) and acting as a bolt to the door of the pathway/channel of food. It is responsible for the duration of life, health, valour, *oja* (essence of the *Dhatu*), strength of all the *Bhutagni* and *Dhatvagni*. The strength of the *Grahani* is from *Agni* itself, and the strength of *Agni* is from *Grahani*. When the *Agni* undergoes vitiation, *Grahani* also gets vitiated and produces diseases.<sup>[16]</sup>

*Jatharagni* is considered to be the most important because each and every nutrient that one ingests first comes to the *Jathara* and is subjected to the action of *Jatharagni*. *Jatharagni* digests the food materials that consist of the five basic elements and transforms it for utilization by the respective *Dhatu paramanu* (tissues). *Jatharagni* is also responsible for the separation of the food material into the essence portion (*Prasad*) and the waste products (*kitta*) in our body.<sup>[17]</sup>



*Jatharagni* is directly related to *Dhatvagni* or bioenergy in the cells and their metabolic processes, with ultimate tissue metabolism or *Dhatu-Paka* process. All the *Dhatvagni* depend on the normal, healthy state of *Jatharagni*. If the *Jatharagni* is hyperactive (*Tikshna*) or hypoactive (*Manda*), it will cause an excessive or retarded action of the *Dhatvagni*. This disturbed action ultimately leads to various disorders. *Jatharagni* is the main important *Agni* that controls the function of all other 12 *Agni*. All the *Agni* are totally dependent on the status of *Jatharagni*.<sup>[18]</sup> *Sushrut* said that *Prana Vayu*, *Saman Vayu* and *Apan Vayu* helps the *Jathragni*.

Food is digested and after digestion *Jathragni* separates it useful and waste part. From the useful part chyme or *Ahara Rasa* is formed and from waste part urine and feces formed. To keep the *Agni* normal, it requires constant supply of food, if it doesn't get food then it digests *Dhatu*. When *Dhatu* are destroyed the person dies. Therefore to keep the physiological function of *Agni*, normal, we should eat proper food at proper interval.

*Jatharagni* is also classified into four categories according to its performance of digestion in the human being<sup>[19]</sup>, namely *Vishamagni*, *Tikshanagni*, *Mandagni* and *Samagni*.

According to *Hareet Samhita*, *Samagni* depends on whether the *Dosha* (*Vata*, *Pitta*, *Kapha*) are in normal stage. When the *Pitta* is higher than normal, the condition is known as *Tikshnagni*. When *Vata* and *Kapha* are higher than normal, the condition is known as *Mandagni*.

- **Samagni:** It is produced by the normal digestion of the three *Dosha*. It usually occurs in individuals who are well balanced; eat balanced diet, rest and exercise sufficiently. People with *Samagni* have normal appetite, satisfaction, normal bowel movements and emotional stability. The *Samagni* digests and assimilates food properly at the proper time. This thus increases the quality of the *Dhatu* (supportive tissues of the body). Persons having *Samagni* are always hale and healthy.
- **Vishamagni:(V)** It is produced by *Vata Dosha*. People with *Vishamagni* often have intestinal bloating, gastritis, constipation and abdominal disorders. It also weakens the immune system with regard to nervous system, bones and upper respiratory tract. It can promote irregular appetite, with intense periods of hunger alternating with lack of interest in food. This type of *Agni* changes between digesting food quickly and slowly. When this *Agni* is affected by the *Vata Dosha*, it creates different types of *Udargata Roga*.



• **Tikshnagni:** (P) It is produced by the *Pitta Dosha*. The people with excess of *Tikshnagni* are more prone towards inflammation and acidity. It implies strong digestion, circulation and immunity. *Tikshnagni* means very quick/very sharp/very fast. *Tikshnagni* is a state of very quick digestion of food, regardless of the type of food. *Acharya Shushrut* states that when the power of digestion is increased from normal to above normal, food digests very quickly and produces hunger or the desire for food. When food is digested, the throat, the mouth cavity and the lips become dry with a burning sensation. This condition is known as “*Bhasmak Roga*” according to *Ayurveda*.

• **Mandagni:** (K) “*Mand*” means slow. It is produced by the kapha dosha. In people with *mandagni* there is slow circulation and excess of secretions are formed. The meaning of the *Mandagni* is slow digestive power or digestive capacity. Those who are having *Mandagni* eat very little and are unable to digest the smallest amount of food. *Dhanvantri* says that *Agni* digests the least amount of food in the greatest amount of time.

## 2. Bhutagni

*Bhutagni* is the one that is present in a basic element (*Bhuta*). There are five *Agni* in each of the five basic elements, namely – *Parthiva* (earth), *Apya* (water), *Tejas* (Agni), *Vayavya* (vayu) and *Nabhasa* (akash). Each and every cell in our body is composed of the five *Mahabhuta* or five basic elements. Naturally, each cell (*dhatu paramanu*) consists of these five *Bhutagni* also. All the nutrients in this world that we eat also consist of the same five basic elements with their respective *Agni* or bio energies. Thus, they are completely similar with respect to the five basic elements with their *Bhutagni* in our body cells as well in all the outside nutrient, that we ingest for the nutrition of our body. *Acharya Charak* has mentioned that the five *Bhutagni* digest their own part of the element present in the food materials. After the digestion of food by the *Bhutagni*, digested materials containing the elements and qualities similar to each *Bhuta* nourish their own specific *Bhautika* elements of the body.<sup>[20]</sup> These *Bhutagni* act after the *Jatharagni* present in the stomach and duodenum, acting on the food and causing their disintegration.

In the modern physiological perspective, the action of *Jatharagni* can be equated with the digestion in the stomach and duodenum, and the action of the *Bhutagni* can be equated with the conversion of digested materials in the liver.

### 3. Dhatvagni

All the seven *Dhatu* (seven element tissues of the body) contain their own *Agni* to metabolize the nutrient materials supplied to them through their own *Srotas*.

1. *Rasagni* present in the *Rasa Dhatu*.
2. *Raktagni* present in the *Rakta Dhatu*.
3. *Mamsagni* present in the *Mamsa Dhatu*.
4. *Medagni* present in the *Meda Dhatu*.
5. *Asthyagni* present in the *Asthi Dhatu*.
6. *Majjagni* present in the *Majja Dhatu*.
7. *Shukragni* present in the *Shukra Dhatu*.

Each *Dhatvagni* or the bioenergy present in each *Dhatu* synthesizes and transforms the essential *Rasa Dhatu* required for that particular *Dhatu* or cell from the basic nutrients present in the *AnnaRasa* or essence of the diet that we consume. Each *Dhatvagni* has got a speciality to synthesize and transform the constituents suitable to its particular *Dhatu*. This action is a sort of selective action. *Acharya Charaka* has mentioned the fact that that the seven *Dhatu* that are a support of the body contain their own *Agni*, and by their own *Agni* they digest and transform the materials supplied to them to make the substances alike to them for assimilation and nourishment.<sup>[21]</sup>

#### **Strong *Agni*' vs 'Weak *Agni*-**

We all have different digestive capacities. How do you know if we are digesting our food properly? When our '*Agni*' is strong, we can digest food more efficiently, while if our *Agni* is weak, our body will not digest food well, creating toxic residue or '*Ama*' that lodges deep in our cells. After eating, if we feel satisfied and energized, it implies that we are digesting our food properly. Our bowel movements too will be well formed and timely, and we will feel hungry shortly on waking up in the morning. A strong '*Agni*' basically leads to excellent health and well-being, while the accumulation of '*Ama*' can lead to slow deterioration of the body.

Meanwhile, if we are experiencing exhaustion, lethargy, pain or discomfort after eating, we are not digesting our food properly. Some other indications like constipation, diarrhoea, lack of appetite and overall feeling of sluggishness, are also indications that our food may not be digesting well.

*Ayurveda* suggests eating based on individual body constitution. Along with determining how to eat properly based on our unique constitution, it is 'Agni' which decides how and what we should be eating. Our 'Agni' or 'digestive fire' can get compromised if we overeat, under-eat, or eat the same foods all year through irrespective of season change, drink too much water with meals, eat at irregular times, stay up late and do not exercise.

### **Physiological Significance of Agni**

Majority of the diseases are outcome of malfunctioning of the Agni which rightly has been called as central to health. Agni plays not only plays vital role in absorption of macro as well as micronutrients, but it destructive to pathogens also. The food that is not properly digested is referred as "Ama" in *Ayurveda* and it is responsible for array of diseases.

Proper functioning of digestive fire is evident from normal tone of the digestive-system, circulatory system, strong immunity or resistance against diseases, proper tissue growth, and above all the complexion. This description better deals with physiological significance of Agni.

### **Pathological Significance of Agni**

If digestive fire is not functioning properly, one has poor digestion, languid blood circulation, poor complexion, low energy levels, flatulence and poor immunity against diseases. Thus promoting proper functioning of the digestive fire is treating the root cause of the diseases, according to *Ayurvedic* principles.

### **CONCLUSION**

It is concluded that a balanced *Agni* is vital for good health and responsible for carrying out normal activities of body. The *Sama & Prakopavastha* of *Dosha* and *Ama* formation are totally dependent on the condition of *Agni* of the body. In every tissue and cell *Agni* is present and is necessary for maintaining the nutrition and autoimmune mechanism. Healthy *Agni* results in good digestion process, proper elimination, proper tissue formation, strong immune system, high energy levels, good circulation and pleasant body odour and breath. Maximum number of diseases is directly or indirectly related to the improper functioning of *Agni*. It is responsible for neutralizing toxins, bacteria and viruses that hinders with the functioning of immune system. So *Anurakshna* of *Agni* is prime importance for physician for maintenance of health & treatment of disease of a person.

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