

**PANCHPORAN (INDIAN FIVE SPICE BLEND) FOR GUT HEALTH: AYURVEDIC  
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**ABSTRACT**

India, the country of spices is known for its unique spice blend practiced since olden era. one such spice is Panch phoron, panch phodan or pancha phutana is a whole spice blend, originating from the eastern part of the Indian subcontinent and used especially in the cuisine of Eastern India and North eastern India, especially in the cuisine of Bhojpur, Mithila, Odisha, Assam, Bengal and Nepal. However, now it is quite commonly used in the rest of the country too. This unique spice blend is almost practiced in daily food preparation for its multiple health benefits. Ayurveda presents various scattered references and concepts in relation to these five herbs, when studied and assessed individually it reveals the importance role of Panch phoron in the maintenance of Gut health.

**INTRODUCTION**

India known for its spicy delicacies have multiple unique spice blends based on the geographical presentation of the country. Panch phoron, panch phodan or pancha phutana is a whole spice blend, originating from the eastern part of the Indian subcontinent and used especially in the cuisine of Eastern India and North eastern India, especially in the cuisine of Bhojpur, Mithila, Odisha, Assam, Bengal and Nepal. However, now it is quite commonly used in the rest of the country too. The name literally means "five spices". All of the spices in panch phoron are seeds. Typically, panch phoron consists of fenugreek seed, nigella seed, cumin seed, black mustard seed and fennel seed in equal parts. Some cooks prefer to use a smaller proportion of fenugreek seeds, because of their mildly bitter taste.

A robust and delicious Indian "five spice" blend, this Panch Phoron recipe is quick and easy to make and is delicious as a rub for meats, added to Indian stews, sprinkled on roasted vegetables and potatoes, and sprinkled on or incorporated into breads before baking. Apart from imparting a unique flavour and taste, this mix of nutrition-packed spice is immensely healthy since it consist of five healthy herbs. All these herbs when individually assessed as per Ayurvedic perspective, are said to have multiple pharmacological action for health. Therefore, altogether all five herbs in Panch Phoron have

been practiced since ages for its great role in the maintenance Gut wellness.

**AIM:** To study the effect of Panchporan on Gut Health as per Ayurvedic perspective.

**OBJECTIVES:** To collect the scattered references from various Ayurvedic texts for each Panch Phoron herbs, to analyse and present collectively the Ayurvedic understanding on their importance for Gut health.

**MATERIAL AND METHOD**

Based on the available data from Ayurvedic classics like Brihat trayee, Raj, Bhavprakash Nighantu, Kaiyyadeva Nighantu, Dravya guna related classics and other evidence-based research papers on Jeeraka, Methika, Sarshapa, Upakunchika and Mishreya the review has been conducted.

**1. Jeeraka<sup>[1]</sup>**

Botanical Name: Cuminum cyminum, Family: Apiaceae

**Vernacular name**Sanskrit name -Jeeraka, English name - Cumin seed  
Hindi name - Zira, Safed jira, Jeera.**Gana** (Classical Categorization): Charak Samhita - Shoola prashmana.<sup>[2]</sup>

Sushrut Samhita - Pippliyadi gana.<sup>[3]</sup>

Raj Nighantu - Krimighna, Agnidipaniya, Jirnajwarahara.<sup>[4]</sup>

### Ayurvedic Properties

Acc to kaivalya Nighantu: Rasa – Katu & Tikta, Guna- Laghu & Ruksa, Virya- Usna

### Pharmacological Description

Jeeraka is pungent in taste, hot in potency, improves taste perception, stimulates the digestive fire and promotes digestion, It is fragrant, improves intellect, alleviates kapha dosha and vaat dosha.<sup>[5]</sup>

### Chemical Constitutes

**Seed:** Cuminin, Diacyl glycerol, Imperatorin, Isoimperatorin, Isoimpinellin, Oxypeucedanin, Apigenin, Apiin, Oxalic, Cuminaldihyde, P – cymene.

**Fruit:** Fatty oil, Resin, Mucilage, Protein compounds

### Therapeutic Action

Vishama jwara, Amlapitta, Visha, Garbhashaya roga, Jwara, Arochaka, Atisara, Grahani, Krimi, Gulma, Chardi, Adhmana, Kustha.



Fig. 1: Panchporan.



Fig. 2: Jeeraka seed.

## 2. Methika<sup>[7]</sup>

Botanical Name: *Trigonella foenum greacum*, Family - Fabaceae

### Vernacular names

Hindi name: Methi, Dogri name: Methrae, English name: Fenugreek, Sickle Fruit fenugreek, Greek hay, Telugu name: Vendhayam

### Ayurvedic Properties

Rasa: Katu, Guna: Laghu, Snigdha Virya: Ushna Vipaka: Katu Doshakarman: Vatakapha nashaka

**Karma:** Vataghna, Vedanahara, Shothanashana, Nadibalya, Raktapittaprapokapa, Angamardaprashamana, Dipana, Pacana, Anulomana, Sulaprashamana, Stanyajanana, Garbhashayavishodhana.

**Part used:** Seed, Whole plant.

**Important formulation:** Jeerakadi Arista, Jeeraka Ghrita, Jeerakadi modaka.

### Nutritional Value

One table spoon of cumin seed contains 22 calories, 1.07 g of protein, 1.34 grams of fat, 2.65 g of carbohydrate which includes 0.6 g of fiber and 0.14 grams of sugar. The same tablespoon serving provides 0.25 % of vitamin K, 49.75% iron, 5.60% of calcium and 0.56% of vitamin C. Cumin contains thymol, that helps promote the production of saliva, bile and other enzymes responsible for food digestion. The aromatic compound Cuminaldehyde helps to induce secretion of digestive juices just by the aroma. Cumin is a rich source of iron A spoonful of cumin is useful to reduce body fat and thus useful in weight loss treatment. It is anti-congestive agent and is a good expectorant, due to its rich essential oils. Hence useful in cough, cold and bronchitis. It also contains riboflavin, vitamin B6 and niacin – useful in improving cognitive functions of brain.<sup>[6]</sup>

### Therapeutic uses

- Sutikaroga -Panchajeerakapaak (B.P.Ci. 70-158/162)
- Vatavyadhi -Daily administration of powder of Methika + Candrashura + Kalajaji + Yavani, cures all vatavyadhis, ajeerna, shoola, aadhmana, parshwashula, katigraha. (B.P.Ni.1-98-99)

**Important formulation:** Pancha Jeerakapaka, Methi Modaka, Chaturbija choorna

**Pharmacological Action:** Hypoglycemic, Fungitoxic, Insecticidal, Antibiotic, Anti-neoplastic, Anti-inflammatory, Anti-pyretic, Analgesic, Hypocholesterolemic.<sup>[8]</sup>

### Chemical constituents

It is rich in mucilage (25–45%) and contains a small amount of essential oil (0.01%) and a variety of

secondary metabolites, including proto alkaloids, trigonelline (up to 0.37%), choline(0.05%); saponins (0.6–1.7%) derived from diosgenin, yamogenin,

tigogenin and other compounds; sterols including  $\beta$ -sitosterol; and flavonoids, among which are orientin, iso orientin and iso vitexin.



Fig. 3: Methika seed.



Fig. 4: Sharshapa seed.

### 3. Sarshapa<sup>[9]</sup>

**Botanical Name:** *Brassicca Campestris* Linn, Family – Brassicaceae

**Vernacular name:** English – Mustard, Hindi – Sarson, Kannada – Sasive, Malayalam – Karupakatuka, Marathi – Kalamohare.

Gana: According to Charaka – Kandughna, Asthanopaga Varga, Shirovirechanopaga  
According to Sushruta – Pippalyadi Gana  
According to Bha. Pra – Dhanya Varga

#### Ayurvedic properties<sup>[10]</sup>

Rasa – Tikta, Katu, Guna – Laghu, tikshna, sngidha, Virya – Ushna, Vipaka – Katu  
Doshakarma: Vatakaphahara  
Karma: Agnivardhaka, Rakshoghna, Kandughna, Kusthagna, Krimighna, Artihara

Pharmacological action – Anthelmintic, Diuretic, Laxative, Rubifacient, Antibacterial  
Part used – seed, seed oil.

#### Therapeutic uses

Vatavyadhi, Kustha, Kandu, Krimi, Twak Vikara, Sula, Agnimandya, Ajirna

#### Chemical constituents

The isolated compounds were respectively identified as (5Z, 7E) - 4, 4-dimethyl- 5-acetyl-5, 7-nona dienoic acid, (1) Indole-3-Carboxaldehyde, (2) Blumenol A, (3) Vinylsyringol, (4) Sinapinic acid, (5) Sinapic acid ethyl ester, (6) Protocatechuic acid, (7) Crinosterol, (8) Campesterol, (9) 7-Oxo-Stigmasterol, (10) Kaempferol, (11) 2,5- dihydroxybenzoic acid, (12) Syringic acid, (13) and Dacecosterol (14).



Fig. 5: Upakunchika.



Fig. 6: Mishreya.

### 4. Upakunchika<sup>[11]</sup>

**Botanical Name:** *Nigella sativa*, Family: Apiacea.

**Vernacular Name:** Hindi – Kalonji, Telugu – Nalla Jeelakarra, Tamil & Malyalam – Karun Jeeragam, English – small fennel.

#### Ayurvedic properties

Rasa – Katu tikta, Guna – Ruksha, Laghu, Virya – Ushna, Vipaka – Katu  
Karma – Vatakaphahara, Dipana, Pachana  
Part used – Seed  
Important Fomulation – Takrarista, Ksharagada

**Therapeutic uses**

Adhmana, Gulma, Atisara, Krimi, Rakta pitta, Yoni sula

**Chemical constituents**

Poisonous saponin- Melanthin bitter alkaloid- Nigellin, essential oil etc. Essen. oil contains- cymine, nigellone, carvone, Limonene, nigellimine.

**5. Mishreya<sup>[12]</sup>**

**Botanical Name:** *Foeniculum vulgare*, Family: Umbelliferae

**Vernacular Name:** Hindi – sounf, Telugu – Sompu, Tamil - Sombu, English – Fennel

Gana: According to Charaka – Madhura skandha

**Ayurvedic properties**

Rasa – Madhura, katu, tikta, Guna – Ruksha, Laghu, Virya – Sheeta, Vipaka – Madhura

Karma –kaphavatahara, Dipana, Pachan, Shukrahara, Hradya

Part used – Fruits

Important Fomulation – Satapushpadi Arka, Satapushpadi choorna

**Therapeutic uses**

Sirasula, Adhmana

**Chemical constituents**

Ascorbic acid, niacien, riboflavin, tocopherls; choline, trigonelline; anethols, anisaldehyde, camphene, estrgole, fenchone, foeniculin, methylchaviol, cynaria; columbianentin, marmesin, ostheno, B-sitostrol, triterpenes, umbelliferone etc.

**DISCUSSION**

All these herbs when assessed as per various ayurvedic treatises, presented a collective concept of their properties meant for maintaining the digestive wellness. Based on the available data from Ayurvedic classics like Brihat trayee, Raj Nighantu, Bhavprakash Nighantu, Kaiyyadeva Nighantu and other evidence-based research papers on Jeeraka, Methika, Sarshapa, Upakunchika and Mishreya it was observed that all these herbs have in common Katu Rasa, they possess gunas like laghu, ruksha. They also have Ushna virya (Hot in potency) and Katu Vipaka (Post digestive effect). Their actions portray Vatakaphahara property which indicates pittakara action. All these poperties are similar to the property of Agni. Gut which is correlated to Amashaya is the seat of Agni, the digestive fire which plays an important role in supporting the digestive process. Thus, these herbs acts directly in kindling the Agni (Digestive fire), the invariable agent in the process of digestion and transformation in-turn retaining the normal equilibrium state of Gut health.

**CONCLUSION**

Indian “five spice” blend, Panch Phoron recipe apart from imparting taste to the Indian delicacies it plays an important role in maintainance of Gut health. All its

properties based on its Ayurvedic properties, pharmacological actions, Phyto constituents and therapeutics uses when analysed mostly depicted its important role in maintaining the Agni (digestive fire) digestive well being. Therefore, it can be concluded that Panchporan has been incorporated in the Indian food items since time immemorial not just for flavour but for its multiple health benefits in relation to digestive health.

**REFERENCE**

1. The plant list. A working list of all plant species. *Cuminum cyminum*, <http://www.theplantlist.org/tpl/record/kew-2747364>.
2. Charaka Samhita of Agnivesha, edited by Dr Brahmanand Tripathi, Chaukhamba Surbharati Prakashan, Varanasi. Editionn, Sutra sthana, 2016; 04.
3. Susruta, Susruta samhita with commentary of Dalhana, edited by Yadavji Trikamji, Chowkhamba Subharti Prakashan, Varanasi, reprint, sutrasthana, 28<sup>th</sup>, 2009.
4. Tripathi ID, Rajanighantu of Pandit Narahari, Chaukhamba Krishnadas Academy, Varanasi 5th edition, 2010.
5. Susruta, Susruta samhita with commentary of Dalhana, edited by Yadavji Trikamji, Chowkhamba Subharti Prakashan, Varanasi, reprint, sutrasthana, 46th chapter, 2009; 229.
6. Prof.P.V. Sharma, Dravyaguna Vidnyan (Vol-2), Chaukhamba Bharati Academy, Varanasi Reprint, 2015; 322-324, 365-368.
7. DravyaGuna Vigyan by Dr. J L N Sastry, Chaukhamba Bharti Academy Publication, 2 nd edition, Reprint, Varanasi, 2: 278 & 279.
8. Prakash L Hegde, A textbook of Dravya Guna Vijyanana, reprint, Choukhambha Publication, 2018; III: 492-493.
9. Prakash L Hegde, A textbook of Dravya Guna Vijyanana, reprint, Choukhambha Publication, 2018; III: 662-667.
10. DravyaGuna Vigyan by Dr. J L N Sastry, Chaukhamba Bharti Academy Publication, 2 nd edition, Reprint, Varanasi, 2: 594-595.
11. DravyaGuna Vigyan by Dr. J L N Sastry, Chaukhamba Bharti Academy Publication, 2 nd edition, Reprint, Varanasi, 2: 570.
12. DravyaGuna Vigyan by Dr. J L N Sastry, Chaukhamba Bharti Academy Publication, 2 nd edition, Reprint, Varanasi, 2: 261.