

## THERAPUTIC USAGE OF (PIPPALI) PIPER LONGUM IN AYURVEDA: A REVIEW

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## ABSTRACT

The universe is gifted with several medicinal herbs. These medicinal herbs that help to treat a different type of diseases. One such natural herbal plant is *Pippali*. In ancient Ayurveda, this herbs is used main ingredient in various formulations to cure respiratory, digestive disorders and numerous *Kaphaja Vikar*. It is used as a rasayana to cure many diseases in ayurveda. It has been instructed to use a suitable amount a short period for disease. The same can be used for a long time in the form of *Vardhamana Pippali Rasayana*. It is utilized different therapeutic frameworks for example- Ayurveda, Unani, Chinese and Siddha to fix a few diseases and problems. It is used as *prakshepak dravya* in many *Avaleha* and formulations. The pharmacological activities of *P. longum* cough suppressant, neuroprotective, antibacterial, antidiabetic, anti-inflammatory, analgesic, hepatoprotective and some more. This will be helpful for researchers to focus on research which is yet to be explored.

**KEYWORDS:** Ayurveda, *Pippali*, Piper, Ancient Ayurveda.

## INTRODUCTION

Ayurveda is one of the ancient medicinal culture which has its roots in India. *Pippali* is also used as a home remedy for different health problems. The drug is described in ayurvedic nighantus. The *Chikitsa Chatuspad* (physician, drug, nurse, patients) has been described by *Charaka*, in which the *Dravya* (drug) is very necessary to cure any disease. We can cure any disease by *Samprapti Vighatan* (pathogenesis), for which it is necessary to choose the special *Dravya* (drugs). *Pippali* is a notable medication in Ayurveda. *Pippali* which tastes pungent. Its botanical name is *Piper longum*. Fruit and roots of the plants are used to cure various disease conditions with different types of *Anupan* (adjuvant), such as *Dugdha* (milk), *Ghrita* (ghee), *Madhu* (honey), *Guda* (jaggery) and *Samanya jala* (plain water), *Pippali* Has been indicated in many clinical conditions like *Kasa*, *Shwasa*, *Gulma*, *Arsha*, *Meha*, *Pliha*, *Kushtha*, *Udar*, *Shula*, *Ajirna*, *Aruchi*, *Jwara*, *Trushna*, *kshaya*, *Krimi*, *Pandu*, *Hrudroga*. Many names of *Pippali* are described in *Nighantus* based on its different works. At present, through this article, we will find out about *Pippali* in detail. Literary information available about *Pippali* in ancient

ayurved texts is compiled here.

## BOTANICAL DESCRIPTION OF PIPPALI

It is commonly available in the central Himalayas and Assam region of India. *Pippali* is a thin fragrant climber creeping jointed stems and fleshy fruits are implanted into the spikes. The Leaves are dark green color. Leaves are heart shaped having dark green color above and pale green below side. Leaves are 5- 9 cm× 3-5 cm, sub-acute, entire, glabrous, ovate, cordate at the base. Flowers of this plant are monoecious, pendulant spikes and straight. Male flowers are larger than female. Both male and female flowers are borne on different plants. This plant bear blossoms during rainy season. Fruits of this plant are oval shaped consisting of yellowish and orange color and they grow in early winters, drupes are about 1 inch in diameter. Dried fruits are greenish-black to black and cylindrical. Taste is pungent and odour is aromatic. Root are grayish brown colored and longitudinally wrinkled.

## THERAPUTIC USES OF PIPPALI IN VEDIC KALA

*Pippali* was used as rasayan in the *Atharv veda*.

*Atividha bhesaji, Ksipta bhesaji and Vatikrta bhesaji.* According to Sayana, it is helpful in treating *Dhanurvata* and *Akshepaka* etc, According to Hindu mythology, Pippali and Amrita (elixir) first appeared in Samudra manthan. According to one instance from the Jaiminiya Bramana, a portion of the saint Vasistha consumed Pippali in order to achieve wealth and health. Pippali and Sarsapakhandha, along with other herbs, are recommended for administration to newborns in the Kouéika dharmasutra. This process is claimed to be Medhya. It is listed as one of Atharva Parisista's Bhesajagana. Vagabhatta indicate specifically for Pliha rogas. According to Keshava Paddhati (26/33- 40) it is indicated for Vata vikaras. Charaka and Susruta have extensively quoted Pippali among the Dashaimani group and ganas respectively. It is quite interesting to note that Vagbhata did not mention it in any of his Vargas (A.H.Su. 15). However he used it in therapeutics extensively. Moreover he also happened to quote Pippali dravya three times (A.H.Chi. 3/133, Ci. 8/45 & Ci. 9/105) against Susruta who quoted only once about *Pippali dravya* (Su.Chi. 37/36). Charaka did not describe *Pippali dravya*. But he mentioned about *Gajapippali* (Ch.Si. 12/39 & Ka. 1/14). Charaka described *Vardhamana pippali rasayana* where in *Pippali* in 10 numbers is given on first day to the 10<sup>th</sup> day in an increased dosage and tampered to the original dose of 10 fruits on the 19<sup>th</sup> day. Charaka advised against using Pippali in excessive quantities (or regularly). However it maybe used as *Rasayana*. In this context *Cakrapani* Clarifies that the restriction is limited in diet and not for long-term medicinal usage (C.S.Vi. 1/12-13).

## MATERIAL AND METHODOLOGY

There is a mention of *Pippali* in all the *Nighantu*. In which various works by *Pippali* are described. The verse describes the synonyms, action on *dosha* and properties of *Pippali*. The e-book, *eNighantu* and online available data on different websites were used for this study.

The numbering of Nighantu is as follows:-

1. Ashtang Nighantu
2. Bhavprakash Nighantu
3. Kaiyadev Nighantu
4. Dhanvantari Nighantu
5. Madanpal Nighantu
6. Raj Nighantu
7. Laghu Nighantu
8. Saraswati Nighantu
9. Shodhal Nighantu
10. Dravyaguna Sangraha

### Important Synonyms with their interpretation

Kana - It has fruit of many Kana's or fruits are small berries. Upakulya - That which grows near water or along side water Stream. Shoundi - That which is used with condiments in drinking liquors. Krushna, Kali, Shyamavha, Shyama - Fruits are Black in colour.

Ushana - That which gives burning sensation or pain to the tongue. Pippali - One can maintain total health by its intake.

Maghadhi, Magadhya, Magadha, Magadhobhava, Magadhika - That which is largely grown Magadha region.

Vaidehi - Grown in Videhadesha. Chapala: That which consoles.

Kola - Its fruit weighs about one kola pramana. Tikshnatandula - Seeds bears Tikshna Guna.

Tiktatandula - Seeds have Tikta rasa. Kshudratandula - Seeds are small sized. Katubeeja - The fruit have pungent taste. Katuvalli - It is predominant of pungent taste. Bahubeeja - Have lots of seeds.

Vrisha- it is used as aphrodisiac. Ushnaphala - Fruit having ushna(heat) guna. Krushnaphala - it has black coloured fruits. Vishva - Used widely.

Katukandarasa - Stem has Katu rasa.

**Table 1: Vernacular names.**

Hindi	Pipali, Pipar, Pipal
Sanskrit	Ushana, Kana, Magadhi, Pippali, Krishnapippali
Marathi	Pimpli
Gujarati	Lindi pepper
Kannada	Hippali, Thippali balli
Malayalam	Tippali, Pippali
Tamil	Tippili
Telegu	Pippallu, Pippali
Bengali	Pipul
English	Long pepper

**Table 2: Taxonomical Classification.**

Taxonomical Rank	Taxon
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Piperales
Family	<i>Piperaceae</i>
Genus	<i>Piper</i>
Species	<i>longum</i>
Common name	Pippalimool, long pepper

**Table 3: Rasapanchak (properties) of *Piper longum*.**

Sanskrit/English	Sanskrit/English
Guna (Physical property)	Laghu (light), Tikshna (Sharp), Snigdha(Oily)
Rasa (Taste)	Katu (Pungent)
Vipak (Metabolic property)	Madhur (Sweet)
Veerya (Potency)	Anushnasheet (Slight cold)

### DIFFERENT VARIETIES OF PIPPALI

*Sushruta* and *Vagbhata* have delineated two varieties of *Pippali*.

1. *Pippali* (*Piper longum* Linn.)
2. *Gaja Pippali* (fruits of *Piper chaba* Hunter or

Scindapsus officinalis Roxb.)

Bhava mishra quoted the fruit of *Chavya* as *Gaja Pippali*. Raj Nighantu has mentioned four varieties of *Pippali*.

1. *Pippali*
2. *Gaja Pippali*
3. *Simhali*
4. *Vana Pippali*

#### Actions and Properties

**Doshkaram:** It alleviates the vitiated Kapha, Pitta and Vata dosha and is used to treat the disorders that arise due to misbalance in Kapha, Vata and Pitta.

**Sansthanik Karam:** The topical application of the plant helps in head evacuation. It is also used as a blood purifier and possesses anthelmintic properties.

**Abhyantranadisasthan:** It is used as a brain tonic and balances Vata dosha.

**Paachansasthan:** It is used to cure stomachache, constipation, dysentery, diarrhea, pacify thirst, stimulate the spleen and also act as a mild laxative.

**Raktabahsansthan:** It is used as a blood purifier.

**Shawasansasthan:** It is used to stop hiccups and is associated with antitussive and anti-asthmatic properties.

**Mutravahsansthan:** It acts as a diuretic agent.

**Prajanansasthan:** It stimulates the uterine muscles and acts as an aphrodisiac agent.

**Twacha:** It is effective against skin disorders.

**Taapkram:** It is used as an antipyretic agent  
*Pippali* in ayurveda samhita: Because of the multidimensional activity of *Pippali*, it is very notable drug since the samhita season of Ayurveda.

#### Charak Samhita

In *Charak Samhita*, numerous portrayals of *Pippali* were noticed. *Rasa*, *Guna*, *Virya*(potency), *Vipaka*, *Prabhava*, *Dausika karma* (pharmacological effects), therapeutic uses of *Pippali*. The drug has described in several *Mahakasaya*, *Yavagu*, different Formulations like- *Pippali Rasayana*, *Vardhamana Pippali*, *Navayas Curna*, *Panchakol Curna*, *Narayana Curna* etc.

#### Sushruta Samhita

*Acharya Sushruta* has described *Pippali* in *Śaka Varga*. *Rasapanchaka*, therapeutic uses of *Pippali*, suitable stage of *Pippali* is also mentioned. It is used in various purposes to attenuate the diseases.

#### Astanga Hridaya

*Astanga Hridaya Acharya Vagbhata* did not mentioned the *Pippali* in detail but it can be described in *Katu Skanda*, *Vamana karama dravya* etc.

#### Sharangdhar Samhita

In this *sharangdhar samhita*, the detailed description of *Pippali* is not found but however, it has referenced in various *Kalpana* (definitions) for various disease like- *Vati Kalpana* (Tablet form), *Churna Kalpana* (powder form), *Kashaya Kalpana* (syrup form), *Avaleha Kalpana* (semi liquid form)etc.

#### THERAPUTIC USES OF PIPPALI IN AYURVEDIC NIGHANTUS-

All most all the Nighantus has mentioned about *Pippali* in various *Varga*. Descriptions are available table no. 4 therapeutic uses.

**Table 4: Shows the ROGAGHNA (Therapeutic) indication of Pippali in different Ayurvedic classical text-**

ROGA	Ch.	Su.	Va.	DN.	MN.	RN.	KN.	BH.N.	PN.	SH.N.
<i>Jwara</i>	+	-	+	+	+	+	+	+	-	+
<i>Shwas</i>	+	+	+	-	+	+	+	+	+	+
<i>Kasa</i>	+	+	+	-	+	+	+	+	+	+
<i>Udar Roga</i>	+	+	+	+	+	-	+	+	-	+
<i>Gulma</i>	+	+	-	-	+	-	+	+	-	+
<i>Pleeha</i>	+	-	+	-	+	-	+	+	-	+
<i>Kustha</i>	+	-	-	-	+	-	-	+	-	+
<i>Prameha</i>	-	-	+	-	+	-	+	+	-	+
<i>Rakta-pitta</i>	-	+	-	-	-	-	-	-	-	-
<i>Arsha</i>	+	+	+	-	+	-	+	+	-	+
<i>Sula</i>	+	+	-	-	+	-	-	+	+	+
<i>Aamavata</i>	-	-	-	-	+	-	-	+	-	+
<i>Pandu</i>	+	-	+	-	-	-	-	+	-	+
<i>Hridroga</i>	-	-	-	-	-	-	-	+	-	+
<i>Krimi</i>	+	-	-	+	-	-	-	+	-	+
<i>Trishna</i>	+	-	-	+	-	-	-	-	-	-
<i>Chhardi</i>	-	-	+	-	-	-	-	-	-	-
<i>Grahani Dosh</i>	+	+	+	-	-	-	-	-	-	-
<i>Shotha</i>	+	-	+	-	-	-	-	-	-	+
<i>Kshya</i>	+	-	+	-	-	+	-	-	-	-
<i>Vata Vikar</i>	-	+	-	-	-	+	-	-	-	-
<i>Kapha Vikar</i>	-	+	-	-	-	+	+	+	-	-

**DOSES FORM OF PIPPALI IN AYURVEDIC CLASSICAL TEXT**

**Churna (powder form):** Pippalyadi Churna (Ca.Ci.13/79), Sitopaladi Churna (Ca. Ci. 8/103-104), Navayas Churna (Ca.Ci.16/70-71), Narayana Churna (Ca.Ci.13/125-132).

**Kalka (paste form):** Vardhamana Pippali (Ca.Ci.1/3/36-40), Pippalyadi Kalka (Śa.Sa.Ma. 5/16), Abhayadi Kalka (Śa.Sa.Ma. 5/25).

**Kaṣaya (liquid form):** Maharasnadi Kvath (Śa.Sa.Ma.2/90-96), Punarnavadi Kvath (Śa.Sa.Ma. 2/78-79).

**Avaleha (semi liquid form):** Chyavan Prash (Ch.Chi.1/1/62-69), Kusmand avaleha (Śa.Sa.Ma. 8/22-28), Agastya Haritaki (Ch.Chi.18/57-62).

**Guggulu:** Kaishora Guggulu (Śa.Sa.Ma. 7/70-81), Triphala Guggulu (Śa.Sa.Ma. 7/82-83, Gokshuradi Guggulu (Śa.Sa.Ma. 7/84-87).

**Gutika (tablet form):** Citrakadi Gutika (Ch.Chi.15/96-97), Śhilajatu Vataka (Ch.Chi.16/87-89), Mandura Vataka (Ch.Chi..16/76-77).

**Ghrita (ghee form):** Trusanadi Ghrita (Ch.Chi. 5/65), Panchakoladi Ghrita (Ch.Chi.8/169), Pippalyadi Ghrita (Ch.Chi.3/219-221), Tikta satpal Ghrita (Ch.Chi.7/141-143).

**Taila (oil form):** Agurvadi Taila (Ch.Chi.3/267), Pathadi Taila (Śa.Sa.Ma. 9/181), Vajra Taila (Śa.Sa.Ma. 9/185-189).

**Kshara:** Panchama Kshara (Ch.Chi.15/188-193), Bhallataka Kshara (Ch.Chi.15/177-178), Pippalimuladi Kshara (Ch.Chi.15/177-178).

**Asava & Arishta:** Pippalyadyasava (Śa.Sa.Ma.10/28-33), Lodhrasava (Ch.Chi.6/42-44), Kumarjyasava (Śa.Sa.Ma. 10/18-22).

**Table 5: Shows the categorization of Pippali in Vrihatrayi.**

NAME OF SAMHITA	CATEGORIZATION OF PIPPALI
<b>CHARAKA SAMHITA</b>	<ul style="list-style-type: none"> <li>• Vamana karaka Dravya</li> <li>• Kanthya Maha Kasaya</li> <li>• Triptighna Maha Kasaya</li> <li>• Krmighni Yavagu</li> <li>• Shirovirechaka Dravya</li> <li>• Shulaghni Yavagu</li> <li>• Dipaniya Maha Kasaya</li> <li>• Pipasaghni Yavagu</li> <li>• Vatanulomani Yavagu</li> <li>• Kanthya Yavagu</li> <li>• Asthapanapaga Maha Kasaya</li> <li>• Shirovirecanaopaga Maha Kasaya</li> <li>• Hikkanigrahaṇa Maha Kasaya</li> <li>• Kasa hara Maha Kasaya</li> <li>• Shitaprashamana Maha Kasaya</li> <li>• Shula prashamana Maha Kasaya</li> <li>• Aharaopayogi Varga</li> <li>• Katu Skanda</li> </ul>
<b>SUSHURUTA SAMHITA</b>	<ul style="list-style-type: none"> <li>• Pippalyadi Gana</li> <li>• Trikatu Gana</li> <li>• Amalakyadi Gana.</li> <li>• Urdhva bhaga dosa hara Dravya</li> <li>• Shirovirecaka Dravya</li> <li>• Kapha Samshamana Varga</li> </ul>
<b>ASTHANG HRIDYAM</b>	<ul style="list-style-type: none"> <li>• Katu Skanda</li> <li>• Vamana karaka Dravya</li> <li>• Shirovirecanaopaga Dravya</li> <li>• Vatsakadi Gana</li> <li>• Nyagrodhadi Gana</li> </ul>

**Table 6: Shows the Categorization of Pippali in Nighantus.**

NAME OF NIGHANTU	CATEGORIZATION OF PIPPALI
<i>BHAVA PRAKASH NIGHANTU</i>	<i>Haritakyadi Varga</i>
<i>RAJ NIGHANTU</i>	<i>Pippalyadi Varga</i>
<i>MADANA PAL NIGHANTU</i>	<i>Shuthyadi Varga</i>
<i>KAIYADEV NIGHANTU</i>	<i>Ausadhi Varga</i>
<i>DHANVANTARI NIGHANTU</i>	<i>Shatapuspadi Varga</i>
<i>ŚALIGRAMA NIGHANTU</i>	<i>Haritakyadi Varga</i>
<i>PRIYA NIGHANTU</i>	<i>Pippalyadi Varga</i>

## DISCUSSION AND CONCLUSION

As per the literature study in Ayurveda, Pippali is one of the most important drugs. This review shows that pippali can be used for a variety of clinical conditions. Since ancient times, the *P. longum* plant has been used as both a spice and a medicine. The plant is used to treat many diseases in traditional medicine. In order to demonstrate the significant benefits of the plant in the treatment of various diseases, additional clinical and experimental research is required to examine the mechanism of action of plant extracts in animals.

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