



**A REVIEW ON SHUNTHI (*Zingiber officinale* Rosc.) WITH SPECIAL REFERENCE TO NIGHANTUS**

Poonam Chhabra \*<sup>1</sup>, Ushasi Ghosh Chaudhury <sup>2</sup>, Amrita Paul <sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Drvagna Vigyan, Belley Sankarpur Rajib Gandhi Memorial Ayurvedic College and Hospital, Kushdanga, West Bengal, India

<sup>2</sup>MD Scholar, Institute of Post Graduate Ayurvedic Education and Research, Shyamadas Vaidya Shastra Peeth Hospital, Kolkata, West Bengal, India

<sup>3</sup>Assistant Professor, Department of Ayurveda Samhita & Siddhanta, Belley Sankarpur Rajib Gandhi Memorial Ayurvedic College and Hospital, Kushdanga, West Bengal, India

\*Corresponding Author Email: drpoonamchhabra@gmail.com

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**ABSTRACT**

*Zingiber officinale* Rosc. is well known common medicinal plant of India. The plant has got good medicinal importance. It is an herbaceous perennial plant of the family Zingiberaceae/ Scitamineae. It is a large tuberous plant with elongated leafy stems, spike inflorescence having yellow green flower. Adraka (Ginger) is the underground rhizome of the plant. It is cultivated extensively in almost all tropical and subtropical countries like India, China, Africa, and Australia. The World Health Organization (WHO) estimates that about 80% of people living in developing Countries depend on traditional medicines for their primary health care requirements. Shunthi is the dried form of Adraka and is prepared by boiling and drying the freshly peeled ginger root in alkaline solution (mostly quick lime) and dried in hot sunlight. In India kitchen ginger and shunthi are one of the important ingredients.

**Keywords:** Shunthi, Ginger, *Zingiber officinale* Rosc, Nighantu,  $\alpha$ -curcumene

**INTRODUCTION**

Plants have been used for medicinal purposes long before prehistoric period. Plant material has been used for the treatment of serious diseases throughout the world before the advent of modern clinical drugs.<sup>1</sup> Shunthi has been described as Vishvabhesaj by Bhavamishra when means the universal reputed medicine. Research shows that Sunthi has Anti -Inflammatory, highly antioxidant activity, Antimicrobial, anticancer properties and also useful in gastrointestinal, hemorrhoids, cardiovascular and sexual disorders.

**Botanical Name** - *Zingiber officinale* Rosc.

**Family** - Zingiberaceae/ Scitamineae

**Taxonomical classification**

Kingdom - Plantae  
Class - Monocotyledons  
Series - Epigynae  
Family - Scitamineae

Genus - Zingiber  
Species - officinale

**Synonyms** <sup>2</sup>

**Sanskrit:** Ausadha, Muhausadha, Nagara, Vishva, Vishvabhesaja, Shringavera, Vishva, Vishvausadha  
**Assamese:** Adasuth, Adar Shuth  
**Bengali:** Suntha, Sunthi  
**English:** Ginger root, Ginger  
**Gujrati:** Sunth, Sundh, Suntha  
**Hindi:** Sonth  
**Kannada:** Shunthi  
**Kashmiri:** Shonth  
**Malayalam:** Chukku  
**Marathi:** Sunth  
**Oriya:** Sunthi  
**Punjabi:** Sund  
**Tamil:** Sukku, Chukku  
**Telugu:** Sonthi, Sunti  
**Urdu:** Sonth, Zanjabeel

Table 1: Sanskrit Synonyms of Shunthi (*Zingiber officinale* Rosc.) in various Nighantus

Sr.No.	Synonyms	BPN <sup>3</sup>	DN <sup>4</sup>	KN <sup>5</sup>	PN <sup>6</sup>	MPN <sup>7</sup>	NA <sup>8</sup>	RN <sup>9</sup>	SN <sup>10</sup>	SGN <sup>11</sup>
1.	Adraka	-	-	-	-	+	-	-	-	+
2.	Katu ushnam	-	-	-	-	-	-	+	-	-
3.	Katu granthi	-	-	-	-	-	-	+	-	-
4.	Katubhadra	+	+	+	-	-	-	+	-	+
5.	Katuyaka	+	-	-	-	-	-	-	-	-
6.	Mahaushdh	+	+	+	+	+	+	+	-	-
7.	Sonth	-	-	+	-	-	+	-	-	-
8.	Sunth	+	+	-	+	-	+	+	+	-
9.	Sringavera	+	+	-	-	+	+	+	-	+
10.	Nagara	+	+	+	-	-	+	+	-	-
11.	Rahubhadra	-	-	+	-	-	-	-	-	+
12.	Visvabhesaja	+	+	+	-	-	+	+	+	-
13.	Vishvaushad	-	+	-	-	-	-	+	-	-
14.	Visva	+	+	-	+	-	+	+	-	-

Table 2: Classical Categorization

Charaka <sup>12</sup>	Triptighna, Arshoghna, Dipaniya, Shulaprasamana, Trishna nigrhana
Sushruta <sup>13</sup>	Pippalyadi, Trikatu
Vagbhata <sup>14</sup>	Pippalyadi varga
BhavPrakash Nighantu <sup>3</sup>	Harityadi Varga
Dhanwantari Nighantu <sup>4</sup>	Satapuspadi Varga
Kaiydeva Nighantu <sup>5</sup>	Ausadhi varga
Priya Nighantu <sup>6</sup>	Pippalyadi varga
Madanpal Nighantu <sup>7</sup>	Sunthyadi varga
Nighantu Adarsh <sup>8</sup>	Pippalyadi Arkadi varga
Raj Nighantu <sup>9</sup>	Pippalyadi varga
Shaligram Nighantu <sup>11</sup>	Harityakadi varga

#### Botanical Description:<sup>15</sup>

It is an erect perennial herb with aromatic rhizome.

**Stem-** it is erect leafy, 15-150cm tall.

**Leaves-** Subsessile, linear-lanceolate or lanceolate, acuminate, glabrous, 10-30cm long.

**Flowers-** shoot upto 12 cm long, clothed with sheaths; bract 2-5cm x 2cm, light green; corolla tube light yellow, lip orbicular, dull purple with creamy blotches.

Flowering and fruiting during July- September.

**Distribution-** Cultivated almost throughout India. Cultivated throughout the sub-Himalayan tracts of Uttar Pradesh, Deccan, Karnataka, Kerala and Bihar. Occasionally it is cultivated in Orissa, Madhya Pradesh and West Bengal.

#### Macroscopic description of Rhizome<sup>2</sup>

Rhizome is laterally compressed bearing short, flattish, ovate, oblique, branches on upper side and each having at its apex a depressed scar, pieces are about 5-15 cm long, 1.5-6.5 cm wide (usually 3-4 cm) & 1-1.5 cm thick, externally it is buff coloured showing longitudinal striations and occasional loose fibres, fracture is short, smooth, transverse surface exhibiting narrow cortex, a well-marked endodermis and a wide stele showing numerous scattered fibro-vascular bundles and yellow secreting cells, odour is agreeable and aromatic, taste is agreeable and pungent.



Figure 1: Whole plant

Source: <https://images.app.goo.gl/fnArPuu7a6aEh6Dy7>



Figure 2: Spike inflorescence

Source: <https://images.app.goo.gl/k4VeL81tFbCuMb5K8>



Figure 3: Flower

Source: <https://images.app.goo.gl/YpT1Y6mRhRPBvoHA>



Figure 5: Dry Ginger

Source: <https://images.app.goo.gl/m1vuyvJ5eDfq4qyh8>



Figure 4: Wet Ginger

Source: <https://images.app.goo.gl/vvYG1EFZyLvijcab7>

### Major Chemical constituents<sup>15</sup>

$\alpha$ -curcumene,  $\beta$ -D-curcumene,  $\beta$ -bourbornene, d-borneol, citral, d-camphene, citronellol, geraniol, gingerol,  $\alpha$ - &  $\beta$ - Zingiberenes, zingiberol, zingerone, gingerols, paradol, gingerenone A, ginger glycolipids A, B, & C; gingerdiol, gingerone B & C etc.

Table 3: Properties of Sunthi (*Zingiber officinale* Rosc.) in various Nighantus

Properties	BPN <sup>3</sup>	DN <sup>4</sup>	KN <sup>5</sup>	PN <sup>6</sup>	MPN <sup>7</sup>	NA <sup>8</sup>	RN <sup>9</sup>	SN <sup>10</sup>	SGN <sup>11</sup>
Rasa	Katu	-	Katu	-	Katu	-	Katu	-	Katu
Guna	Guru Tikshna	Snigdha	Snigdha Laghu	-	Guru	Snigdha Laghu	Snigdha	Snigdha	Snigdha Laghu
Virya	Ushna	Ushna	Ushna	-	Ushna	Ushna	Ushna	Ushna	Ushna
Vipaka	Madhura	Katu	Madhura	-		Madhura		Madhura	Madhura

### Indication<sup>15</sup>

Shula, Amavata, Adhmana, Atisara, Shlipada, Kasa, Shvasa, Hridroga, Shopha, Arshas, Hikka, Vibandha, Raktapitta, Pandu, Vrana, Jwara, Kustha, Agnimandya.

### Therapeutic Uses<sup>15, 16</sup>

- **Jaladosha-** Ardraka and Yavaksara are taken together with lukewarm water.
- **Pratisyaya** – Ardraka is given with milk.
- **Kaphaja Arshas** – Ardraka and Kulutha are used.

- **Murcha** – Ardraka svarasa is used as Nasya
- **Agnimandya-** Sunthi and Haritaki should be taken in equal quantity with jiggery or saindhava lavana
- **Parinam shula-** Paste of Shunthi, Tila and guda has to be consumed with milk
- **Shotha-** Consuming equal quantity of Shunthi and jiggery with punarnava kashaya is beneficial in shotha.
- **Shirashula-** Nashya of Guda and Shunthi kalka is beneficial in shirashula.
- **Visucika-** Kwatha prepared from Shunthi and Bilwa is useful.

Table 4. Therapeutic Indication of Sunthi (*Zingiber officinale* Rosc.) in various Nighantus

Diseases	BPN	DN	KN	PN	MPN	NA	RN	SN	SGN
Shwasa	+	+	+	+	+	+	-	+	+
Kasa	+	-	+	+	+	+	-	+	+
Chardi	+	-	+	-	+	+	-	+	+
Hikka	-	-	+	-	+	+	-	-	-
Vibandha	-	-	-	-	+	-	-	+	-
Udar roga	+	+	+	-	-	-	-	+	+
Arsha	-	-	-	-	-	-	-	+	+
Aruchi	-	+	-	+	-	-	-	-	-
Pratishyay	-	-	-	+	-	-	-	-	-
Pandu	-	+	-	-	-	-	-	+	-
Sangrahi	+	-	-	-	-	-	-	+	-
Shotha	+	+	+	-	-	-	+	-	-
Sleepada	+	+	+	-	-	-	-	-	+
Shula	+	-	+	-	-	+	-	-	+
Gulma	-	-	-	-	-	+	-	-	-
Klaivya	+	-	-	-	-	-	-	-	-
Hridroga	-	-	+	-	-	-	+	-	-
Kanthyaroga	-	-	-	-	-	-	+	-	-

**Part Used-** Rhizome

**Dosage** – Fresh Juice 5-10 ml, Powder 1-2 gm; syrup 2-4 ml

**Important formulations-** Soubhagya Shunthi, Shunthi kashaya, Panasama Churna, Samasarkara Churna, Ardraka Khand, Ardraka Ghritam, Nagaradi churna, Nagaradi taila, Shunthi ghrita, Ardraka Rasayana, Kottamchukadi tailam, Nagaradi Kashayam, Shunthi rasanadi kashaya, Ardraka khand avalehya.

**Contraindications**<sup>16</sup>

Fresh ginger is contraindicated in Kustha, Pandu, Mutrakrichra, Raktapitta, Vrana, Jwara, Daha, Grishma and Sharada ritu.

**Drug interactions**<sup>17</sup>

Shunthi can interact with anti-inflammatory medications such as ibuprofen. It can also interact with aspirin, warfarin, heparin and other drugs that effect bleeding tendencies or platelet count.

**Identity, purity and strength**<sup>2</sup>

Foreign matter - Not more than 1 per cent

Total Ash - Not more than 6 per cent

Acid-insoluble ash - Not more than 1.5 per cent

Alcohol-soluble extractive - Not less than 3 per cent

Water-soluble extractive - Not less than 10 per cent

## CONCLUSION

Shunthi is highly regarded as a universal panacea in the ayurvedic medicine. It has been widely used for curing various ailments due to its therapeutic potentials. This versatile plant is the source of various types of compounds and it has medicinal value both in wet and dry form. It cures Amavata. Shunthi stimulates digestion and act as Dipana and Pachana. It has Vedanasthapana action. It is an aphrodisiac, improves voice and cures vomiting, dyspnea, spasmodic pain. It also enhances cardiovascular health. Shunthi plays a very vital role in the traditional herbs-based remedies and also economic growth of the nation. It has been used as food and as remedy for various ailments since ancient times but still it is a drug of concern for the researchers as many of its activities are still hidden and it need further clinical study.

## ABBREVIATION

BPN- Bhav Prakash Nighantu,

DN-Dhanvantri Nighantu,

KN-Kaiydeva Nighantu,

PN-Priya Nighantu,

MPN-Madanpal Nighantu

NA-Nighantu Aadarsh,

RN-Raj Nighantu,

SN-Sankar Nighantu,

SGN-Shaligram Nighantu

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