



# The World of Spices

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# Spices are Defined as...

A seed, fruit, root, bark, or other plant substance primarily used for flavouring, colouring or preserving food.



Spices are distinguished from herbs, which are the leaves, flowers, or stems of plants used for flavouring or as a garnish.





# History of Spices–

- Used for over 5000 years.
- Cinnamon, pepper, nutmeg, cloves, cumin, ginger etc. used since ancient times
- Most demanded & expensive products available in Europe in the Middle Ages.
- Ramayana mentions cloves.
- India is the largest producer of spices



# Role of Indian Spices

- Used as flavoring agents
- Possess antibacterial & antioxidant properties
- Used as preservatives
- Also used as colorants
- Many contain medicinal properties





# Medicinal properties

- Spices have been getting recognition for their health benefits
- The medicinal properties are due to the bioactive compounds present in them.
- Many spices have antioxidants, anti-carcinogenic, anti-inflammatory & Heart healthy effects.



# Health Benefits

- Protects from acute and chronic diseases.
- Ample evidence that spices and herbs possess:
  - Antioxidant
  - Anti-inflammatory
  - Anti- tumorigenic
  - Anti-carcinogenic
  - Glucose- and cholesterol-lowering activities
  - Properties that affect cognition and mood







# Recent Review (2019) by Jiang TA.



- Research over the past decade has reported on the diverse range of health properties that Spices possess via their bioactive constituents, including sulfur-containing compounds, tannins, alkaloids, phenolic diterpenes, and vitamins, especially flavonoids and polyphenols.



## Health enefits of Some commonly used Spices

Spice	Appearance	Benefits
Turmeric		<ul style="list-style-type: none"><li>▪ Helps prevent Alzheimer's disease &amp; joint inflammation.</li><li>▪ Helps relieve gas, dispel worms, improve digestion, regulate menstruation, dissolve gallstones, relieve arthritis</li><li>▪ <u>Curcumin</u>– anti-inflammatory, antioxidant, antioxidant, anti-carcinogenic, antibacterial, antidiabetic, hypocholesterolemic</li></ul>
Ginger		<ul style="list-style-type: none"><li>▪ Relieves common colds.</li><li>▪ Has quick relieving effects on heartburn, nausea, upset stomach, diarrrohea, motion and morning sickness.</li><li>▪ Beneficial anti-inflammatory, due to its high levels of <u>Gingerol</u>, making it a great natural remedy for arthritis.</li></ul>



Cloves		<ul style="list-style-type: none"><li>▪ Antiseptic and antibiotic properties of clove oil (Eugenol) are used in medicines especially in dentistry, oral and pharyngeal treatments.</li><li>▪ Has anti-inflammatory, antibacterial, antifungal, antiparasitic effects.</li><li>▪ Also reported to help diabetics in sugar assimilations.</li><li>▪ Clove extract has also shown significant decrease in serum cholesterol levels.</li></ul>
Garlic		<ul style="list-style-type: none"><li>▪ Antibacterial property helps in boosting immunity.</li><li>▪ The sulphur compound allicin-antibiotic, antioxidant, anti-tumor, antidiabetic, antitoxic effects</li><li>▪ Claimed to prevent heart disease (atherosclerosis, high cholesterol, high BP.</li><li>▪ Allicin has shown significant hypoglycaemic activity.</li></ul>

Fenugreek  
seeds  
(methi)





- Rich source of protein, iron, fibre &  $\omega$ -3 fatty acids.
- Acts as antioxidant, analgesic, anti-inflammatory, anti-diabetic, hypolipidemic.
- Maintains gut integrity by improving digestibility & absorptility & prevents ulcers.
- Excellent Galatagogue (promotes lactation)

Cumin Seeds



- Considered carminative, antispasmodic & used in treatment of mild digestive disorders, diarrhea, morning sickness, bloating.
- Has anti-stress, antioxidant & memory enhancing activities



<b>Asafoetida (Hing)</b>		<ul style="list-style-type: none"><li>▪ Traditionally used to treat asthma, flatulence, abdominal pains, constipation, GI infections.</li><li>▪ Oleo-gum-resin in it has antifungal, anti-diabetic, anti-inflammatory, antiviral activities.</li><li>▪ Helps in relieving toothache, migraines, &amp; tension headaches.</li><li>▪ Also associated in treatment of hysteria, mood swings &amp; depression.</li></ul>
<b>Ajwain</b>		<ul style="list-style-type: none"><li>▪ Believed to cure digestive issues- colic, diarrhoea, dysentery &amp; indigestion,</li><li>▪ Also known for curing blocked nose, common cold &amp; rheumatic pain.</li><li>▪ Extracts of ajwain shows significant antitussive effect.</li><li>▪ Has great detoxification effect.</li></ul>

# How can Spices aid in a Better Tomorrow?

- Used traditionally in Indian families & also in western regions.
- Treats & Prevents various health issues.
- Modern diets - fancy salads & light meals – space for functional foods
- Helps in building strong immunity & keeping away from many chronic diseases.





*Life is too boring  
without a little Spice in*

