
Ayurvedic Significance of Indian Spices and Household Remedies: A Review

Harshita Bhargava¹ & Prof. Bindu Chaturvedi²

¹Ph.D. Scholar at University of Kota, Kota, Rajasthan

²Associate Professor at University of Kota, Kota, Rajasthan

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Abstract

For ages, Indian kitchens have held a quiet power—where herbs and spices did more than add flavour; they offered healing. This paper reviews how everyday ingredients, such as turmeric, ginger, and black pepper, have played dual roles as both food and medicine. Ayurveda draws heavily on herbs and spices commonly found in our homes, shaped by generations of household experience and everyday practice. The study explores how these natural remedies have majorly shaped preventive health traditions. Even during the COVID-19 pandemic, many families returned to these trusted ingredients, realizing their value and properties in boosting immunity and maintaining wellness.

These valuable indigenous spices and herbs, which once were common in Indian kitchens, have re-emerged as symbols of wellness and resilience. This review explores their well-established roles as flavouring agents and effective medicines, examining how Ayurvedic tradition uses kitchen biodiversity to develop preventive and promotive healthcare. These native medicines not only highlight the limitations of contemporary diets but also the wisdom of household pharmacopoeias compared with modern industrial foods. Interest in functional foods increased during the COVID-19 pandemic as families returned to traditional species and herbs, confirming the healing power of functional foods for health maintenance. The discussion places current changes, driven by global supply chains and mechanised agriculture, in context and emphasises the importance of reintegrating these traditional culinary practices to create sustainable health policies that are ecologically and nutritionally sustainable. This study aims to acquire the practical knowledge from Indian kitchens that can be effectively incorporated into modern health strategies, thereby linking the past with the future and comparing these time-tested practices with the limitations of processed foods, calling for a renewed focus on natural, local, and sustainable healthcare choices. Ultimately, we can bridge ancient knowledge with our modern medical strategies by recognizing the wisdom which is stored in our kitchens.

Keywords: - Ayurveda, Indian kitchen, spices, herbal medicine, traditional remedies, immunity, pharmacology, preventive healthcare, AYUSH

Introduction

In Indian kitchens, it has always been more than a place to cook—it's a space of worship, care, traditions, and healing. The soothing cup of turmeric milk, the warmth of ginger tea, or the simple sprinkle of cumin over dal—each carries stories passed down through generations. Ayurveda does not just treat illness; it also promotes balance by incorporating everyday foods for preventive care. As climate and increasing lifestyle diseases motivate us to think more about our wellness, these humble herbs remind us that sometimes, the best remedies are already within arm's reach, tucked inside a spice jar. Indian kitchens have long been silent guardians of family health. Recipes such as turmeric milk or ginger tea are passed from mother to daughter, even today, each sip of them is a small, distilled piece of wisdom that blends Ayurveda with village lore. Now, those same jars of fennel, fenugreek, and black cumin are once again in the spotlight due to years of viral

surges and new lifestyle illnesses. Ayurveda, with its seamless weaving of nourishment and healing, reminds us that cumin and cardamom are far more than mere seasonings; they are everyday medicines offered in a ladle of dal or a spoon of chutney. Spice and species both derive from a Latin root, suggesting rarity. India's climate—volcanic summers, monsoonal downpours, and frigid winters—has selected those uncommon seeds, roots, barks, and petals that retain their potency after drying (P. Bhavya Sree et al. (2020)). A curry's soul is elevated by each tiny, knobbly piece that rattles in the mortar. It can also cool a fever or affect a metabolic pathway. Pharmacology and poetry are combined in Ayurveda to depict the ordinary kitchen shelf as a peaceful dispensary.

Ayurveda has always focused on prevention and daily life shaping, which was primarily practised by women, who often served as the family's main health guardians (Gupta, 2024). The use of herbal pastes, steam inhalations, and simple poultices demonstrated a preventive approach to addressing issues ranging from chronic coughs to persistent skin eruptions. In the home, the boundary between "Ahar" (sustenance) and "Chikitsa" (remedial care) was flexible, with a single bowl of soup, for example, serving both as a meal and therapy (Gupta, 2024).

Many Ayurvedic texts recommend the daily consumption of certain herbs and spices to maintain "dosha" balance. For example, turmeric balances all three doshas (Vata, Pitta, and Kapha), while black pepper and ginger also balance all three. Ensuring consistent intake of such ingredients integrated into daily cooking. Such practices are structured or labelled as formal medical treatments (S. et al., 2019). Historically, middle-class Indian women have been custodians of the food economy and health. They practised thrift, cooked from abrasion, and preserved their culinary knowledge. The economic and ecological benefits of revitalizing traditional cooking—using local products, natural preservatives, and traditional utensils—are substantial. Such practices not only promote health but also support environmental sustainability and food sovereignty.

In the collection of Dadi ke Nuskhe, Yashoda Devi documents how the eldest women in the household, the dadi's, were the family's primary healers. Their reputation for knowing exactly the right herb pinch, the night's steam bath secret, or neem leaf poultice's cooling relief earned them the affectionate title "house doctors." Devi's volume describes a remarkable range of ailments addressed by these home-made remedies: eczema and herpes were soothed with turmeric and goat's milk pastes; pain in the eyes or ears was alleviated with herbal infusions; and fever, whether caused by malaria or heat, was broken by spiced teas. Dog bites, scorpion stings, burns, and sprains were treated with a mixture of pressure, cooled ash, and binding threads. There is also a strong focus on women's health, with entire sections dedicated to herbs for delayed menses, breast swelling, discharge, labour pains, and other gynaecological issues. In turn, the children were comforted with syrups for coughs, powders for teething, and light broths for upset stomachs.

Pharmacological Value of Spices in Indian Kitchens

A wealth of research and traditional plant studies consistently highlight the medicinal importance of spices commonly found in Indian households. These staples contain concentrated pools of phytochemicals: curcumin in turmeric, piperine in black pepper, eugenol in clove, and allicin in garlic, all demonstrating strong therapeutic potential. The table below details 46 spices frequently used, including their botanical identities, active constituents, health applications, and relevant literature. The spices listed exhibit complementary mechanisms such as anti-inflammatory, antimicrobial, antioxidant, hepatoprotective, antidiabetic, and anticancer actions.

(Table 1: Spices from Indian Kitchen with Ayurvedic Significance)

Ingredient	Scientific Name	Properties	Helpful in Diseases
Ajwain	<i>Trachyspermum ammi</i>	Thymol, oleic acid, linoleic acid, terpinene, p-cymene, palmitic acid	Antibacterial, Antiepileptic, Antifilarial, Antifungal, Antihelminthic, Antioxidant, Antiviral
Amla	<i>Phyllanthus emblica</i>	Vitamin C, ellagic acid, gallic acid, chebulagic acid, quercetin, luteolin	Boosts immunity and metabolism, an antioxidant, and treats cold
Anise	<i>Pimpinella anisum</i>	Anethole (major component of essential oil) Estragole Coumarins Flavonoids Limonene, α -pinene, linalool	Anticonvulsant, Antifungal, Antioxidant, Antimicrobial, Antiviral
Arjunkichaal	<i>Terminalia arjuna</i>	Triterpenoids, Flavonoids, Arjunolic acid	Cardiovascular diseases, Hypertension, High cholesterol
Asafoetida	<i>Ferula asafoetida</i>	Ferulic acid, umbelliferone, glucose resin, rhamnose, glucuronic acid	Anticancer, Antidiabetic, Antioxidant, GI protection, Hepatoprotective, Vasodilation, Women's ailments
Ashwagandha	<i>Withania somnifera</i>	Withanolides, withanone, withaferin-A	Lowers cortisol, reduces stress/anxiety, and provides relief
Bay Leaves	<i>Cinnamomum tamala</i>	Essential oil	Antioxidant, antidiabetic, hypolipidemic, carminative, cytoprotective
Black Pepper	<i>Piper nigrum</i>	Piperine	Antibacterial, antioxidant, digestive, antidepressant, anticonvulsant
Cardamom	<i>Elettaria cardamomum</i>	Volatile oil, phenolic acid, sterol, phytol	Antifungal, Antioxidant, Diuretic, Blood pressure control, Gut modulatory
Celery	<i>Apium graveolens</i>	Flavonoids, volatile oil	Antimicrobial, antihelminthic, hypolipidemic, anti-inflammatory, anti-depressant,

			anti-proliferative, gastric protection
Chironji	<i>Buchanania lanzan</i>	Flavonoids, fatty acids, proteins	Skin disorders, digestion, wound healing
Chilli	<i>Capsicum frutescens</i>	Phenolic acids, Capsaicin, Capsanthin, Capsorubin	Antimicrobial
Chia Seeds	<i>Salvia hispanica</i>	Omega-3, antioxidants, fibre	Heart health, inflammation, and regulating blood sugar
Cinnamon	<i>Cinnamomum zeylanicum</i>	Essential oils – trans-cinnamaldehyde, eugenol, linalool	Anti-inflammatory, antifungal, antibacterial, antidiabetic, gastroprotective, hepatoprotective
Cloves	<i>Syzygium aromaticum</i>	Eugenol	Antifungal, anti-inflammatory, antimicrobial, antiviral, immunomodulatory
Coriander Seeds	<i>Coriandrum sativum</i>	Monoterpenes, flavonoids, essential oil	Antidiabetic, cardio-protective, diuretic, sedative, hypotensive, atherosclerotic
Coriander Leaves	—	Tannins Ascorbic acid (Vitamin C) Phenolic acids	Anti-anxiety, antibacterial, neuroprotective, antioxidant, memory-enhancing
Cumin	<i>Cuminum cyminum</i>	Anthroquinone, flavonoids, tannin, steroids	Anti-diarrhoeal, antimicrobial, antioxidant, cytotoxic, digestive enzyme enhancer
Curry Leaves	<i>Murraya koenigii</i>	Linalool, elemol, myrcene, alpha-terpinene, neryl acetate	Antibacterial, Antidiabetic, Antifungal, Antioxidant, Cytotoxic, Hypolipidemic
Fennel	<i>Foeniculum vulgare</i>	Anethole, estragole, fenchone, limonene, p-cymene, volatile and phenolic compounds	Aids digestion, anti-atherogenic, anti-inflammatory, memory enhancing, hormone balancing
Fenugreek	<i>Trigonella foenum-graecum</i>	Saponins, alkaloids (trimethylamine, trigonelline), betaine, carpaine	Antioxidant, antimicrobial, antihypertensive, renal and hepatic protective, and dysmenorrhoea relief
Fig	<i>Ficus carica</i>	Fibre, antioxidants, vitamins	Helps with blood pressure, constipation, and diabetes

Garlic	<i>Allium sativum</i>	Allicin	Antioxidant, antibacterial, antihypertensive, hepatoprotective, immunomodulatory
Giloy	<i>Tinospora cordifolia</i>	Alkaloids – choline, tinosporin, 11-hydroxymustakone	Reduces fever, anxiety, stress, and fights respiratory issues
Ginger	<i>Zingiber officinale</i>	Zingiberene, zingerol, bisabolol, volatile oils	Antimicrobial, antioxidant, anti-inflammatory, anti-diabetic, and dysmenorrhoea relief
Kalonji	<i>Nigella sativa</i>	Thymoquinone, alkaloids	Antibacterial, antioxidant, antifungal, antidepressant, antitumor, bronchodilator, gastroprotective, neuroprotective, anti-diabetic, hypolipidemic
Lemon	<i>Citrus x limon</i>	Limonene, sabinene, citronellal, linalool, geranial, terpinen-4-ol, geraniol, myrcene, etc.	Sore throat, cold, cough, flu symptoms, hydration, respiratory relief
Lemongrass	<i>Cymbopogon citratus</i>	Citral, flavonoids	Fever, anxiety, antibacterial
Liquorice (Mulethi)	<i>Glycyrrhiza glabra</i>	Glycyrrhizin	Antiviral, anti-inflammatory, antibacterial, respiratory ease
Mace (Javitri)	<i>Myristica fragrans</i>	Dihydroguaiaretic acid, elimicin, myristic acid, myristicin	Nausea, circulation, cold, cough, appetite booster, stress relief
Mint	<i>Mentha</i>	Menthol, Menthone Rosmarinic acid Flavonoids, Tannins Terpenoids	Antibacterial, antifungal, anticancer, radiosensitive, infantile colic, neuralgia
Mustard Seed	<i>Brassica nigra</i>	Allyl isothiocyanate, butyl isothiocyanate	Antifungal, antioxidant, antimicrobial
Nutmeg	<i>Myristica fragrans</i>	Terpenin, limonene, β -pinene	Anticancer, antidepressant, antidiabetic, antioxidant, antimicrobial, hepatoprotective
Pepper	<i>Piper nigrum</i>	Tannins Lignans and terpenoids	Antibacterial, antidepressant, anti-inflammatory, GI health, respiratory relief, antioxidant

Pipli	<i>Piper longum</i>	Piperine, alkaloids, lignans, essential oils	Respiratory disorders, liver disorders, digestion, and immunity
Raisins (Munakka)	<i>Vitis vinifera</i>	Resveratrol, flavonoids, quercetin, catechins, procyanidins, anthocyanins	Bone health
Saffron	<i>Crocus sativus</i>	Terpenes, terpene alcohols	Antioxidant, antidepressant, antihypertensive, anticonvulsant
Sesame	<i>Sesamum indicum</i>	Sesamin, sesamol, tocopherols, PUFA, phytosterols	Cardioprotective, antioxidant, anti-inflammatory, hepatoprotective
Tamarind	<i>Tamarindus indica</i>	Polyphenols & Pectin	Anthelmintic, anti-inflammatory, analgesic, antimicrobial
Turmeric	<i>Curcuma longa</i>	Curcumin	Antioxidant, antimicrobial, neuroprotection, gastroprotection, Alzheimer's, osteoarthritis, diabetic retinopathy

Ayurveda and Traditional Chinese Medicine: A Comparative Insight

In Ayurveda, as in Traditional Chinese Medicine, food and medicine constitute a single continuum, with natural herbs serving as the primary instrument of healing. The phrase "Aahara is also Aushadhi"—food is medicine—captures an ancient Indian insight that the items we choose for our daily meals, if selected with prudence, can prevent illness and restore health. In TCM, herbs acquire meaning through their tastes: Sour invigorates the Liver during Spring, Bitter cools the Heart in Summer, Sweet strengthens the Spleen in Late Summer, Pungent opens the Lungs in Autumn, and Salty stabilizes the Kidneys in Winter. Ayurveda organizes herbs according to the three doshas (Vata, Pitta, Kapha), the six seasonal variations (Ritu), and the seven dhatus (tissues), prescribing tastes such as madhura (sweet), tikta (bitter), lavana (salty), katu (pungent), amla (sour), and kashaya (astringent) to restore energetic harmony (Lili & Farquhar, 2023).

In both traditions, tastes transcend mere sensory pleasure; they are precise instruments of therapy. Modern biomedicine typically delineates nutrition from pharmacology, yet Ayurveda and TCM alike affirm the healing power locked within spices and herbs, whether delivered as kashayas (decoctions), churnas (powders), or incorporated into the daily diet. From both hemispheres of the planet, ancient healing traditions have recognized that the same herbs that flavour food can also be medicine, administering their virtues through the subtleties of taste and the alchemy of the digestive fire (Lili & Farquhar, 2023).

Extension – Additional Ayurvedic Kitchen Ingredients To enrich the existing database, the present section introduces extra kitchen staples such as chia seeds, chironji, pipili, fig, and lemongrass, along with less-frequented allies like kapok buds and fresh coriander leaves. Their nutraceutical promise is gradually winning wider attention. While these ingredients have long been treasured in specific locales, only in the last few years they have begun to gain consistent acknowledgement in the broader field of Ayurveda across the nation.

(Table 2: Additional Ayurvedic Kitchen Ingredients)

Name	Scientific name	Effects
Ajmoda (Celery Seeds)	<i>Apium graveolens</i>	Carminative, diuretic, used in arthritis, flatulence
Stone Flower (Dagad Phool / Kalpasi)	<i>Parmotrema perlatum</i>	Antimicrobial, used in respiratory and digestive ailments
Curry root (Kachur)	<i>Curcuma zedoaria</i>	Anti-inflammatory, antimicrobial, used in indigestion and skin disorders
Indian bay leaf (Tejpatta)	<i>Cinnamomum tamala</i>	Antidiabetic, antioxidant, helps in managing metabolic disorders
Caraway (Shahi Jeera)	<i>Carum carvi</i>	Improves digestion, reduces bloating, and is used for colic in babies
Kokum	<i>Garcinia indica</i>	Digestive aid, cooling agent, anti-allergic, antioxidant
Camphor (Edible - Pachha Kapoor)	<i>Cinnamomum camphora</i>	Used in indigestion, cold, as an antispasmodic and mild sedative
Bael (Wood Apple Pulp)	<i>Aegle marmelos</i>	Used in dysentery, ulcers, diabetes, and immunity boost
Gond (Edible Gum)	<i>Acacia spp.</i>	Rejuvenative, used in post-partum recovery, arthritis, and bone strength
Tamarind Seed Powder	<i>Tamarindus indica</i>	Antioxidant, joint support, gastroprotective
Raw Mango Powder (Amchur)	<i>Mangifera indica</i>	Rich in vitamin C, improves digestion, antioxidant
Beetroot (used in chutneys/salads)	<i>Beta vulgaris</i>	Liver tonic, blood purifier, anti-inflammatory
Poppy Seeds (Khuskhus)	<i>Papaver somniferum</i>	Sedative, antitussive, relieves constipation and insomnia
Moringa Leaves (Sahjan ke Patte)	<i>Moringa oleifera</i>	Highly nutritious, anti-inflammatory, supports immunity and liver health

Modern Relevance and Integration

Recent health crises, particularly COVID-19, have prompted a renewed global interest in traditional remedies. The WHO now reports that more than 80% of people in low-income countries depend on these age-old practices. In India, this renewed focus has translated into widespread re-engagement with AYUSH guidelines that recommend daily doses of turmeric, holy basil, black pepper, and ginger—ingredients once commonplace in every household (Singh et al., 2022).

The Ministry of AYUSH has formalized immunity-boosting directives, many of which centre on spices and herbs already tucked away in kitchen cupboards. Universities and research councils have responded by

rigorously re-testing this folk wisdom under controlled laboratory conditions, documenting how these everyday botanicals can interfere with viruses, suppress harmful bacteria, and modulate inflammatory pathways, both in cell cultures and in living models (Radhika & Malik, 2021).

At the same time, the spread of Western dietary patterns and the growth of the food-processing sector are deeply reshaping Indian kitchens. Rapid urbanization and changing lifestyles have favoured the convenience of packaged snacks, sugary sodas, and fried snacks, overshadowing traditional staples. Multi-grain millets are now often swapped out for refined grains, and aggressive marketing campaigns have successfully ingrained poor dietary habits, particularly among the younger generation.(Singh et al., 2022)

Food Systems and Health Impacts Post Green Revolution

The Green Revolution and later industrialization brought processed food to the fore. Traditional grains and cookware were replaced by refined products and metal utensils, which led to lifestyle diseases. Urbanization has also encouraged eating out and consuming nutrient-poor foods. Modern diets are often linked to obesity, diabetes, and other chronic diseases (John & Babu, 2022).

Modern Indian kitchens show influences from globalization, convenience, and industrial food systems. Ready-to-eat meals, processed foods, and fast-cooking methods have created a gap from traditional practices. However, there is a growing interest in organic, natural, and holistic health that is bringing back the idea of food as medicine (Saxena et al., 2021).

Discussion

The Indian kitchen is a source of nutrition and healing. A closer look at the medicinal properties of these ingredients reveals the strength of traditional practices. Many compounds found in spices have potential in treating lifestyle diseases, such as hypertension, diabetes, obesity, and metabolic syndrome.

The paper further suggests that combining traditional knowledge with scientific support can make these spices a foundation for affordable and accessible healthcare. Public education programs should focus on restoring respect for household remedies while still considering allopathic options.

Challenges and Future Prospects

Despite their potential, kitchen-based remedies face scepticism because there are no standard dosages and formulations. We need regulatory frameworks to integrate these natural substances into clinical practice safely.

Future research should focus on:

- Conducting clinical trials on standardized spice extracts
- Digitising Ayurvedic household knowledge
- Educating youth by integrating it into the curriculum

This will help preserve India's rich traditional knowledge and make it relevant through worldwide.

Conclusion:

The mix of tradition and modern science highlights the true value of kitchen-based remedies. These everyday ingredients have both nutritional and therapeutic benefits. As resistance to synthetic drugs grows and interest in holistic wellness increases, we need to validate and include this knowledge in mainstream healthcare. This review provides support for revitalizing Ayurveda through the use of kitchen ingredients and encourages us to connect domestic practices with scientific research.

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