



Consumption of Spices in Daily Life Helps Preventing Chronic Diseases

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ABSTRACT

Spices are the flavouring agent, colouring agent, souring agents but spices are exported majorly from our motherland. Spices can be cultivated freshly and dried. The quality of the spices are divided and packed into various packaging units. The best quality spices are exported to various countries. The spices from moderate quality are used only in limited amounts in Indian kitchen. When the usage of spices will be increased the standard quality of life will also be increased. Traditionally anjaraipetti is the common container where spices can be stored in small amounts. The usage of spices in day to day life prevents common conditions like fever, cough, cold, infections due to environmental damage. These conditions can be prevented by good immune health. Systematic consumption reduces the risk of diseases.

Introduction

Spices are the dried substances (**Fasoyiro 2015**). They are collected freshly from different parts of the plants and trees and dried for long stay of the spices. Spices such as cinnamon sticks are collected from thin inner bark of the cinnamon tree, bay leaves are perennial shrub that are dried for deeper flavor, clove is the flower bud cultivated and dried for dark colour, star anise is a eight pointed star fruit which imparts flavor, caraway seeds is the halfway between aniseed and fennel seeds in flavor, turmeric is the aromatic root also gives intense colour to the food (**Srilakshmi 2016**). Spices are majorly used to preserving, seasoning, colouring the food. Many research studies prove that spices are considered being a



traditional resemblance to medicinal properties and also used in pharmaceuticals, perfume industries, insect repellants, food preservatives and safety control mechanism (Fasoyiro 2015).

In ancient times the best known usage of spices are not only in food preparation and cooking but also in embalming mummies by Egyptians which is recorded in bible (Fasoyiro 2015). In old testamen it is noted that the queen of sheba visited king Solomon gifted him wide variety of spices, abundant gold and precious stones. Her gifts show the honor and respect to king solomon. Spices are a key component in process making of incense which is significant product of worship for israel, thus queen of sheba acknowledge king Solomon divinity. Spices also connect the cultural and traditional significance (Bible Hub 2025).

The spices are stored in the main part of the place in kitchen according to the convenience of the cook (our mother) the head of the kitchen, traditionally the container of the spices is called anjaraipetti. The container is a medicinal box which has been made out of metals like aluminium, brass, iron, stainless steel, wood, plasticwares, glasswares. Traditionally in anjaraipetti only 5 to 6 bowls can be fixed but now the number of bowls are increased and the size of the bowls are also increased, this article portrays the therapeutic and medicinal importance of spices fixed in the spice box. The spice box resembles the health and wealth of the family. Regular usage of spices near to the salt jar increases the immune health of the family members.

I. Fenugreek Seeds

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Fabales
Family	Fabaceae
Genus	Trigonella
Species	Foenum-graceum Linn.

Source: Bhat, M., et.al. 2019

Fenugreek is otherwise called as “Greek Hay”. The seeds are highly nutritious which will treat, manage and prevent numerous disease conditions. Diosgenin, which is a precursor in industrial synthesis of progesterone and cortisol; tigenin, yamogenin, flavonoids, fenugreekine, galactommanan, 4-hydroxyisoleucine, trigonelline, quercetin, phytic acid, and saponins, coumarin, folic acid, phytic acid, nicotinic acid are the crucial components present in fenugreek seeds which exhibit

innumerable therapeutic properties. Systematic consumption of fenugreek seeds reduce the plasma sugar profile and lipid profile. It is identified as antioxidant, anticarcinogenic, antibacterial, antianorexia agent, **(Khorshidian 2016)** antipyretic, antimicrobial, antileukemic, and antineoplastic properties **(Saikat et.al., 2019)**.

In ayurvedic medicine fenugreek seeds are used to stimulate milk for lactating mothers, treat indigestion and induce labor. Due to the presence of fiber and amino acids fenugreek seeds regulate gut health. It increases the rate of insulin release and improves the resistance of insulin. Soluble fiber percentage in fenugreek seeds release the effect of antidiabetic effect by inhibiting the digestion and absorption of carbohydrates and enhancing the peripheral insulin action **(Wadie 2012)**. Fenugreek seeds are also used as a flavouring ingredient in cooking. The seeds are bitter in taste, also used in seasoning sambar, gravies and pickle and dry powders for instant chutney powders. In pickle the dry seasoned powder of the seed increases the keeping quality and enhances the flavor of pickles **(Srilakshmi 2016)**.

II. Cumin seeds

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnolipsida
Order	Apiales
Family	Apiaceae
Genus	Cuminum L.
Species	Cuminum Cyminum L.

Source: Agarwal, U., et al. 2017

The common names of cumin seeds are jeerakam and jeera in tamil and hindi. Cumin is a annual medicinal crop utilized as drug for human health. It is a economical small herb. It has disease prevention properties like immunomodulator, anti-cancer, anti-diabetic, anti-microbial, anti-fungal, analgesic, hepatoprotective, anti-osteoporotic, anti-oxidant, anti-inflammatory, anti-asthamatic, anti-stress, anti-infertility, dietary fibre, blood platelet aggregation, anti-tussive activities. Cuminaldehyde, α -pinene, β -pinene, phellandrene, cuminic alcohol, hydrated cuminaldehyde and hydro cuminine are the micro components present in volatile oil of cumin seeds. Cumin are aromatic seed grown and cultivated all over the world. Cumin seeds are especially used for their therapeutic properties. In ayurveda dried cumin seeds are consumed for increased appetite, easy digestion, good vision, and bone and muscle strength. Treatment for fever, diarrhea, abdominal pain and oedema. The chief components present both



in essential oil and seeds are ρ -Cymene, carvacrol, spathulenol, longifolene and important phytochemicals such as alkaloid, anthraquinone, coumarin, flavonoid, and glycoside. These phytochemicals act as protective agents to fight against diseases like oxidative damage which leads to cancer, cardiovascular disease, dental caries, digestive problems. (Swamy 2025).

In unani fruits of cyminum is used for the treatment of boils, ulcers, inflammation, corneal opacities and to reduce cough. Cumin seeds are also used for removal and treatment of kidney stones, bladder stones, chronic diarrhea and to manage eye disease and leprosy. Cumin has zero percent of cholesterol and rich in calcium and copper. It contains essential major nutrients like carbohydrates, protein, total fat and dietary fibre a type of carbs. Also carries essential minerals and vitamins such as iron, zinc, magnesium, phosphorus, sodium, potassium, folates, niacin, pyridoxine, riboflavin, thiamin, Vitamin K, E, C, A in small quantities. Addition to therapeutic properties it also has antiepileptic activity which act against epilepsy induced by pentylenetetrazole, Analgesic activity, astringent activity from alcoholic and ether extract from cumin. Flavonoids and cuminaldehyde facilitates primary digestion, enhance gastric mucinprotection, activate salivary glands. Anti-asthmatics act as a decongestant in cumin seed essential oil (Agarwal 2017).

III. Mustard Seeds

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Capparales
Family	Brassicaceae
Genus	Brassica L.
Species	Sinapishirta

Source: Dubey, et.al., 2015

Mustard seeds are grown in china and asia. Mustard seeds are seen in different varieties of colours like white, brown, black and yellow which are mixed to create aromas. The seeds are so small, pungent and hot taste. The seeds are seasoned for chutneys, gravies and much south Indian cuisine for rich taste and aromas. Mustards are used as emulsion stabilizers in mayonnaise. Mustard powders are used in pickles and dry dhal powders and masala mixes that was used in non vegetarian cooking to reduce fungal and bacterial spoilage (Dubey et.al., 2015).

Seeds having a different range of applications in pharmaceutical, nutraceutical, cosmetics, food and beverage industry. It also has glucosinolate compounds which includes gluconapin, glucoraphanin,



glucobrassicin, sinigrin, and sinalbin. The pungent taste is received from the component sinalbin (Das et.al., 2022). The seeds also protect against the anti-nutrient aflatoxin with the presence of dithiol thiones. Dithiothione is act as a antischistosomal drug. Mustard oil is very effective against sacchromyces (Srilakshmi 2016).

IV. Coriander Seeds

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Apiales
Family	Apiaceae
Genus	Coriandrum L.
Species	Coriandrum sativum L.

Source: Mahleyuddin et.al., 2021

Coriander seeds is also called as dhania. Geraniol is the active principle component present in the essential oil of coriander seeds. The seeds are used as powder form to enhance the flavor of the food, dry roasted coriander seeds are made into a powder freshly and added into gravies or rasam, vegetables and chutney powders (Srilakshmi 2016).

It has therapeutic properties like cardiometabolic disorder inhibiting properties and angiotensin-converting enzyme (ACE)-inhibiting potency which are effects from phytochemicals like flavonoids, phenolic acids, phytosterols, and terpenes. In addition to cardio health, it also relieves from chronic pain, inflammation and rheumatoid arthritis, GI tract disorders like indigestion, diarrhea, nausea, gastroenteritis, measles, convulsion, insomnia, anxiety, influenza, bad breath, unpleasant odor from genitalia, carminative agent (Mahleyuddin et.al., 2021).

V. Pepper

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Piperales
Family	Piperaceae
Genus	Piper
Species	Nigrum

**Source: Goswami, A., et al., 2020**

Black pepper is called as “King of Spices”. It has several therapeutic properties like antidepressant, anti-inflammatory, immunomodulatory, anticonvulsant, antihypertensive, antitumor, antitussive, pain reducing, antidiarrheal, antispasmodic effects. Black pepper is used tremendously in ayurvedic and unani medicine. Pepper act as a spoiler for free radicals which is the stimulator for cancer cells. It has a strong antioxidant effect that avoids oxidative damage and oxidative stress. Piperine signals cancer cells thereby reduces the progression of tumor. It also portrays angiogenic progression which inhibit breast cancer cell induced in vivo angiogenesis. It exhibits anti-mutagenic and anti-tumor influencers. It is an effective anti-inflammatory agent arthritis. It also rises up the energy level of white blood cells by inducing immunoglobulin and T helper cells. It posses cholesterol lowering, gastro-protective, anti-neuro inflammatory properties.

Conclusion

Thus spices are the best ingredients to fight against several disease conditions. From the small symptom to chronic diseases are treated and prevented by daily consumption of spices. Overnight soaked fenugreek water, boiled cumin seeds, seasoned black pepper are highly nutritious. Consuming spices in different ways pay the way to health and hygienic life.

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