

A REVIEW ON ANCIENT REMEDIES OF *ALLIUM CEPA* FOR HUMAN HEALTH

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ABSTRACT

In Modern life disease and disorder widely increases some of them like skin diseases, Heart problems, bone disorders, Diabetes, Hair Loss etc. because changes in life style, poor diet, vitamin deficiency, genetics, Hormonal changes, Bacterial infection, synthetic drug decreases ability to prevent or cure disease or side effect. That diseases or disorder prevent in ancient times using food plants as medicines purpose. Now, that concept is helpful to utilize in now a days for preventing disease or disorders. Plants are the traditional form of Indian medicine which was developed by ancient years because plants are provides more health benefits of humans with no side effect. The herbaceous plant *Allium cepa* (onion). It belongs to family "Liliaceae" and has Latin name "*Allium cepa*". In Hindi it is known as Pyaj. Onion is a multipurpose food plant that is used as traditional Indian spices. It contains some sulfur containing compounds, flavonoids, proteins, Vitamins and Minerals. Onion is used to relieve headaches, coughs, snake bite, hair loss, Wound Healing, Hypertension, common cold and diuretics etc. Onion is known as Palandu in Sanskrit. Its medicinal properties and physical properties are explained in texts of ayurveda. Ayurveda Acharyas have explained the uses of onion in various health conditions and have classified onions based on their colours. It has great health significance and is consumed for nutritional and health benefits for last centuries. India is the 2nd largest onion growing and exporter country in the world.

KEYWORDS: *Allium cepa*, Hair Growth, flavonoids, Onion etc.

INTRODUCTION

Herbal plant widely used in modern life for medicinal and cosmetics purposes such as antibacterial cream, shampoo, gels and soaps because plants provide more health benefits of humans with no side effect. Plants are the traditional form of Indian medicine which was developed by ancient years. One of them introduces Onion (*Allium Cepa*) Family Liliaceae is common onion plant available into two varieties depending upon external part white or colored. Onion has multipurpose food plant used in traditional Indian spices. It has great health significance and is consumed for nutritional and health benefits for last used in centuries. Onion is widely used in day to day life for various purposes some people love onion & some people hate onion, but have great health benefits are present in Onion. It is an easily digestible aromatic vegetable which is used throughout the world. In Hindi, it is known as Pyaj and is also recognized by other names such as Green onion, Red onion, white onion etc. Onion used to relieve headaches, common cold, decrease Blood sugar, Hypertension, diuretics, wound healing etc. Onion food and a medicinal plant since ancient times. It is widely cultivated vegetable bulb crop and most consumed worldwide. It is a short duration crop grown in short duration of time. It

is highly valued medicinal properties & improves taste of foods.

Types of Onion

- Red Onion
- White Onion.^[1]

Botany of Onion^[2]

1	Scientific Name	<i>Allium cepa</i> L.
2	Kingdom	Plantae
3	Division	Magnoliophyta
4	Class	Liliopsida
5	Order	Asparagales
6	Family	Alliaceae
7	Genus	<i>Allium</i>
8	Species	<i>Allium cepa</i>
9	Edible Parts	Flowers, Leaves, Root, Seed.

Description of Onion and Their Parts

An onion is perennial herb, strong smelling when crushed bulbs vary in size and shape from cultivar to cultivar, often depressed-globose and up to 20cm in diameter; outer tunics membranous.

Organoleptic Properties

Colour	: - Red
Odour	: - Strong, cutting the bulb stimulates lachrymation.
Characteristic	: - Alliaceous
Taste	: - Spicy

Stem: - Up to 100cm tall and 30mm in diameter, tapering from inflated lower part.

Leaves: - Generally leaves are green in colour .it is up to 40cm in height and 20mm in diameter, usually almost semicircular in section and slightly flattened on upper side basal in first year, in second year their bases sheathing the lower sixth of the stem.^[3]

Flowers: - Flowers are white coloured. It look like of Bracteate, means is a flat, thin, single-sided 2-3 membranous spathe like bracts enclosing the flower during young stage.

Seed: - The seed are black in colour and it is convex on one side and flattened on the other and is covered by a black seed coat. The embryo is crescent shaped or curled in a spiral.^[4]

Origin and History of Onion

The Onion (*Allium cepa*) has multipurpose food plant that is used as traditional Indian spices. The plant reaches a height of 2-5 ft and bears cluster of greenish white flowers. Onions develop from the base of leaves to form underground bulbs. Onion Seeds are black in colour. This Onion name is known as Palandu in Sanskrit. Its medicinal properties and physical properties are explained in texts of ayurveda. Ayurveda acharyas have explained the uses of onion in various health conditions and have classified onions based on their colours. "Rakta palandu" (Red coloured onion) and "shweta palandu" (white coloured onion) these are two varieties of onions.

According to ayurveda onions are heavy to digest and slimy to touch. They taste sweet and are pungent to smell. They increase fire component of body (ushna veerya) and acquire sweet taste after digestion (madhura vipaka). Its seeds and fruit are used in ayurvedic preparations. Onion normalizes vata and increases kapha and pitta. It acts as an anti inflammatory and reduces pain. Ayurvedic texts recommend its use in sciatica, arthritis and other diseases which involve bones, joints and peripheral nervous system, onion juice is suggested in pigments and dark spots which appear on face.^[5]

Onion also found in Span western and eastern Asia, the geographic origin of the onion is uncertain, with likely domestication worldwide. Food uses of onions date back thousands of years in China, Egypt and Persia. Some Traces of onions found from Bronze. Age settlements in China recommend that onions were used as far back as 5000 BCE, not only for their flavor, but the bulb's durability in storage and transport. Ancient

Egyptians valued the onion bulb, viewing its spherical shape and concentric rings as symbols of eternal life. Onions were used in Egyptian burials, as evidenced by onion traces found in the eye sockets of Ramesses IV.

Pliny the Elder of the first century CE wrote about the use of onions and cabbage in Pompeii. He documented Roman beliefs about the onion's ability to improve ocular ailments, aid in sleep, and heal everything from oral sores and toothaches to dog bites, lumbago, and even dysentery.

In the Age of Discovery, onions be taken to North America by the first European settlers, only to discover the plant readily available, and in wide use in Native American gastronomy. According to diaries kept by certain of the first English colonists, the bulb onion was one of the first crops planted by the Pilgrim fathers.

Raw Onion Bulbs**Nutritional value per 100 g (3.5 oz)**

Sr.no	Composition	Values
1	Energy	166 kJ (40 kcal)
2	Carbohydrate	9.34 g
3	Sugar	4.24 g
4	Dietary fiber	1.7 g
5	Fat	0.1 g
6	Protein	1.1 g

Sr. No	Vitamins	Quantity	% Values
1	Thiamine (B1)	0.046 mg	4%
2	Riboflavin (B2)	0.027 mg	2%
3	Niacin (B3)	0.116 mg	1%
4	Pantothenic Acid (B5)	0.123 mg	2%
5	Vitamin B6	0.12 mg	9%
6	Folate (B9)	19 µg	5%
7	Vitamin C	7.4 mg	9%

Sr.no	Minerals	Quantity	% Values
1	Calcium	23 mg	2%
2	Iron	0.21 mg	2%
3	Magnesium	10 mg	3%
4	Manganese	0.129 mg	6%
5	Phosphorus	29 mg	4%
6	Potassium	146 mg	3%
7	Zinc	0.17 mg	2%

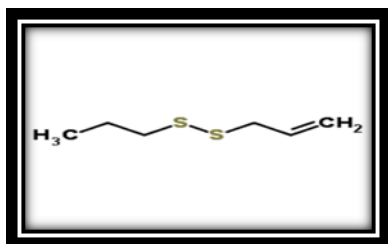
Sr. No	Other Constituents	Quantity
1	Water	89.11 g
2	Fluoride	1.1 µg

Eye Irritation

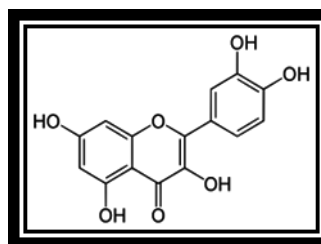
Freshly cut onions causes sensation in the eyes of people nearby and frequently uncontrollable tears release from eye. This is caused by due the release of a volatile gas, *syn*-propanethial-S-oxide, which stimulates nerves in the eye.^[6]

Chemical Constituents of Onion

A onion contains flavonoids & sulfur containing compounds,^[7] Allyl propyl disulfide, quercetin^[8] xylose.



Allyl propyl disulfide



Quercetin

Glucose, mannose, cycloalliin, selenium, thiosulfates, and seleno compounds. Red onion contain high amounts of oil (20.4%), fibre (22.4%), crude protein (24.8%), calcium (175.0 mg/100 g), potassium (1010 mg/100 g), low amounts of sodium (11.2 mg/100 g) and six cysteine derivatives.^[9] High in vitamin C, onions are a good source of dietary fiber, and folic acid. They also contain calcium, iron, and have a high protein quality (ratio of mg amino acid/gram protein).^[10]

Production of Onion^[11]

Onion (*Allium cepa* L.) is very important vegetable crop not only for internal consumption but also as highest foreign exchange earner among the fruits and vegetables. It occupies an area of thousand hectares, with production of 19,299,000 thousand tons in India.

World Scenario

India is the 2nd largest onion growing and exporter country in the world. It exported onions worth USD 308.64 million between January and September 2017.

Showing Below Major

Rank	Country	Total production (tonnes)
1	China	22,300,000
2	India	19,299,000
3	Usa	3,159,400
4	Iran	2,381,551
5	Russia	1,984,937
6	Turkey	1,904,846
7	Egypt	1,903,000
8	Pakistan	1,660,800

Onion Producing Countries of The World

Onion Health Benefits

Onions is not only providing flavor but also provide health promoting phytochemicals are presents. Phytochemicals are natural compounds found in onions which have the potential to promote health benefits in humans. It is being used as herb health food and medicine in India, China, Pakistan Middle East for the last more than 1000 years and still employed as daily food supplements.

Hair Loss

Hair loss or "hair thinning" is common patient complaint now a day's widely suffer from number of people that occurs loss of hair from scalp. This problem widely improves because the concept of hair loss changing day to day that produces fear on younger generations.

Causes of Hair loss

- Anemia
- Emotional Stress
- Poor Diet
- Genetic,
- Hereditary Thinning
- Hormonal Imbalance,
- Mineral Imbalance,
- Exposure Of Poisons,
- X-Ray
- Autoimmune Disease.

Allium cepa

Known as onion mainly contains protein (albumin), allyl propyl disulphide, diallyl sulphide, alliin, allicin. It also contains some mineral like potassium, zinc, calcium, vitamins, magnesium. These onion juice rubbed in affected part morning and evening until it is red. It should be rubbed with honey afterwards. That helpful for preventing hair loss. Iron is involved in the oxygenation of body's red blood cells. Another Onion produce positive effect on the circulatory system improve blood circulation and decrease inflammation and perfect amount of nourishment that stimulate hair growth effect.^[12]

Anti-Dandruff & Hair Growth Activity of Onion Benefits

Zinc helps to secrete the scalp with much needed oil and avoid dandruff that may cause hair loss.

Onion is used because it is rich in Sulphur which is one of the essential minerals in encouraging hair growth. Blood circulation gets better due to Sulphur which provides the hair follicles with anti-bacterial properties of onion help to heal scalp infections that can contribute to hair loss. Also, it contains anti-oxidants, which are antioxidants such as enzyme catalase that can prevent the

hair from pre-mature greying. Honey is a natural ingredient which consists of fructose and glucose, and also has vital nutrients and vitamins that helps in healing and nourishing the body. Honey has a beautiful property of retaining water and that is reason is effective hair moisturizer.^[13]

Antimicrobial Activity

Some researcher found that the methanol and aqueous suspensions of the dried *Allium cepa* (Liliaceae) bulbs extract was screened for its antimicrobial activity using the agar-well diffusion method. It is tested against Gram-positive bacteria (*Staphylococcus aureus*).^[14]

Wound Healing

Onion is widely used in preparation of Ayurvedic formulations for wound healing. It also shows biological efficacy for prevention median sternotomy wound in pediatric patients. Onion extract shows the therapeutic effect on human skin shows anti-inflammatory, antiseptic.^[15]

Anti-Parasitic Activity

Some researcher has been found to be onion & garlic contains several sulfur and secondary metabolites which show anti-parasitic activity against trypanosome brucei & *Leishmania tarentolae*.^[16]

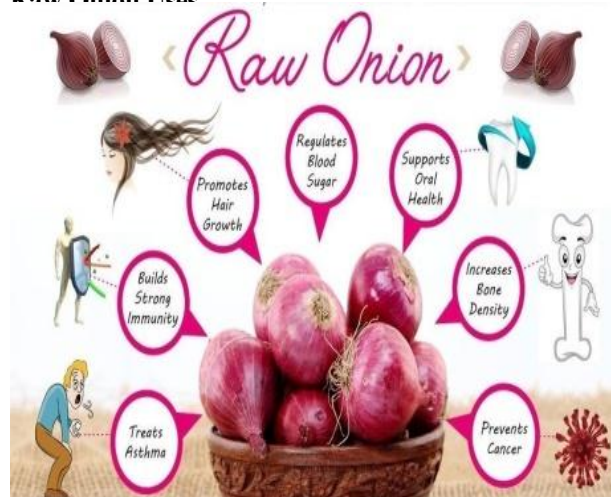
Antidiabetic

Flavonoids also possess an antidiabetic property that is directly related to the increase of insulin production by control of pancreatic cells. Another study shows that quercetin helps in suppressing diabetic symptoms.^[17]

Bone Health

Bone is very important part of human body. Now days bone problem widely improves such problem as bone fractures due to osteoporosis are a health care burden. Dairy and soy have both been proposed as dietary sources of compounds (calcium, phytoestrogens) with potential for improving bone health, but neither has been confirmed as helpful in clinical trials with humans. Muhlbauer and Li (1999) demonstrated that onion intake by rats was responsible for increasing bone mass, bone thickness, and bone mineral density. Onions inhibited bone resorption by 20% when consumed at a rate of 1g per day per kg of body weight. This was slightly higher than the rate of bone resorption obtained from the calcitonin that is typically used to treat postmenopausal osteoporosis. These findings suggest that onion intake may be a useful dietary approach to improving bone health.^[18]

Raw Onion Uses^[19]



Onions and Heart Health

Cardiovascular disease widely improving now days these onion reduce hypertension. To help keep our blood free of clots, (anticoagulant) and make the most of the health benefits of onions, eat them both raw and cooked. Prescribing onions to heart patients is a routine thing amongst cardiologists. I) Boost beneficial HDL cholesterol (ii) Thin the blood clotting (iii) Lower total blood cholesterol (IV) Lower triglycerides (V) Lower blood pressure.^[20]

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