

MEDICAL BENEFITS OF *APIUM GRAVEOLENS* (CELERY HERB)

*Prof. Satyanand Tyagi¹, Patel Chirag J², Mangukia Dhruv³, Mangukia Ishita⁴, Anil Kumar Gupta⁵, Mohammed Rageeb Mohammed Usman⁶, Bhupendra Nimbiwal⁷, Dr. Raaz K Maheshwari⁸

¹President & Founder, Tyagi Pharmacy Association (TPA) & Scientific Writer (Pharmacy), Chattarpur, New Delhi, India-110074.

²Editor-in-Chief, Tyagi Pharmacy Association (TPA) & Scientific Writer (Pharmacy), Patan, Gujarat, India-384265.

³Department of Pharmaceutics, Maharishi Arvind Institute of Pharmacy, Mansarovar, Jaipur, Rajasthan, India-302020.

⁴Department of Pharmaceutics, Parul Institute of Pharmacy, Vadodara, Gujarat, India-391760.

⁵Jyoti Vidyapeeth women's University, Jaipur, discipline of Pharmaceutical Science, Jaipur, Rajasthan, India-303007.

⁶Department of Pharmacognosy, Smt. S. S. Patil College of Pharmacy, Chopda, Maharashtra, India-425107.

⁷Department of Quality Assurance, Seth G. L. Bihani S. D. College of Technical Education, IPSDR, Sri Ganganagar, Rajasthan, India-335001.

⁸Department of Chemistry, SBRMGC, Nagaur, Rajasthan, India-341001.

ABSTRACT

Celery (*Apium graveolens*) is an alimentary herb as well as a special medicinal plant. Celery leaves are used for spicing up foods and drinks such as cocktails. It contains vitamins A, B1, B2, B6, C, E, K, P and minerals such as iron, calcium, phosphorus, magnesium and zinc. Vitamin C contained by celery strengthens the immunologic system and at the same time makes the body more resistant against new diseases. Calcium, potassium and magnesium act towards the same goal, straightening the body. Along with magnesium, iron is effective in alleviating the effects of anemia. Celery has the ideal quantities of iron and magnesium to stop oncological diseases from progressing. The juice extracted from the petioles can be used for edema, rheumatic tendencies, gout, flatulence, chronic pulmonary catarrh, tendencies toward overweight and lack of appetite. It is a strong diuretic, and is used as a urinary antiseptic, mainly because of the volatile oil apiol. Celery can be helpful in treating skin problems, when it is used raw, or prepared as tea. Celery seed decoction is used for bronchitis, rheumatism, and as a sedative. Seeds are also used as a blood purifier, and are very helpful in treating arthritis. Oil extracted from the root can restore sexual potency affected by illness.

KEY WORDS: *Apium graveolens*, Celery, Antioxidants, Seeds, Liver

INTRODUCTION:

Apium graveolens L. (Apiaceae), celery, is a native of Eurasia and is grown mainly in coastal regions. Celery is widely cultivated in the temperate zones as an important garden crop and the bleached leaf stalks are relished as a popular vegetable¹. *Apium graveolens* is one of the ingredients in 8 of the 33 Indian polyherbal formulations with reputed life protecting activity². The characteristic odor of celery essential oil is due to a series of phthalide derivatives. Vegetables and fruits are considered to be good sources of functional ingredients. Leafy vegetables

apart from being a good source of minerals also contain antioxidant vitamins and pigments. Leafy vegetables are also known for their therapeutic value. Many studies have shown that antioxidants, present in plants at high levels, are the compounds responsible for these functionalities³. Antioxidants or molecules with radical scavenging capacity are thought to exert a potential protective effect against free radical damage. These biomolecules contribute to prevention of coronary and vascular diseases and of tumor formation by inhibiting oxidative reactions^{1,4}.



Figure 1: *Apium graveolens*⁵



Figure 2: *Apium graveolens* dry seeds⁶

COMMON NAME: Wild Celery, Ajmod, Ajwain-kapatta⁷
SYNONYMS: *Apium celleri*, *Apium decumbens*, *Celeria*⁷

PHYSICAL CHARACTERISTICS:

Apium graveolens is a biennial growing to 0.6 m (2ft) by 0.3 m (1ft in). It is hardy to zone 6 and is not frost tender. It is in flower from January to August, and the seeds ripen from August to September. The flowers are hermaphrodite (have both male and female organs). The plant is self-fertile. It can grow in semi-shade (light woodland).

Suitable for: Light (sandy), medium (loamy) and heavy (clay) soils. It prefers moist soil.

Suitable pH: Acid, neutral and basic (alkaline) soils and can grow in saline soils⁷.

CHEMICAL CONSTITUENTS:

The major bioactive compounds in the celery include a class of phenolic compounds called furanocoumarins. The main linear furanocoumarins in celery include the three phototoxic furanocoumarins, Psoralen, xanthotoxin and bergapten^{1,7}.

MEDICAL USES:

1. Wild celery is an aromatic bitter tonic herb that reduces blood pressure, relieves indigestion, stimulates the uterus and is anti-inflammatory.
2. Celery is also used as an effective remedy for various ailments such as bronchitis, liver and spleen disease, arthritic pain and this natural holistic approach to health is becoming more and more popular now a days.
3. The herb should not be prescribed for pregnant women.

4. Wild celery is said to be useful in cases of hysteria, promoting restfulness and sleep and diffusing through the system a mild sustaining influence.
5. An essential oil obtained from the plant has a calming effect on the central nervous system. Some of its constituents have antispasmodic, sedative and anticonvulsant actions.
6. A homeopathic remedy is made from the herb. It is used in treating rheumatism and kidney complaints.
7. It has been shown to be of value in treating high blood pressure.
8. Celery seeds are used in India to treat bronchitis, asthma, liver, and spleen diseases.
9. The ripe seeds, herb and root are aperient, carminative, diuretic, emmenagogue, galactagogue, nervine, stimulant and tonic.
10. Several components from celery seeds were also reported for their anticarcinogenic activity.
11. Celery seeds possess a characteristic aroma and pungent taste and are used as a condiment in the flavoring of food products^{1,7,9-11}.

HAZARDS:

If the plant is infected with the fungus *Sclerotinia sclerotiorum*, skin contact with the sap can cause dermatitis in sensitive people. This is more likely to happen to Caucasians. Allergic responses include anaphylaxis in sensitive individuals. Cross allergenicity between celery, cucumber, carrot, watermelon and possibly apples. Avoid during pregnancy as emmenagogue, abortifacient and uterine stimulant activity reported⁷.

CONCLUSION:

Apium graveolens L., celery, is a hepaxanthic herb grown as a biennial and under certain conditions, as an

annual. The root is harvested in the autumn and can be used fresh or dried. The whole plant is harvested when fruiting and is usually liquidized to extract the juice. Wild celery has a long history of medicinal and food use.

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