

ANGELICA

Angelica archangelica

Family

Apiaceae (or Umbelliferae), the celery, carrot or parsley family. Not to be confused with Chinese angelica, or dong quai (*Angelica polymorpha*), a herb long considered for gynaecological complaints. ¹

Parts Used

Root

Description

Angelica, known as a “veritable giant in the herb world”, is a towering perennial or biennial plant reaching heights of up to 2.5 metres. The thick hollow stem of this statuesque herb is a dim greyish purple colour and eventually branches into a globular compound umbel, resembling the

spokes of an umbrella. The umbel may span up to 13 centimetres in width, donning small vibrantly coloured flowers. The colour of the flowers exists on a continuum ranging from vivid yellow green to bright white. The base of the plant has long, slender, feather-like green leaves, described by Maud Grieve, in her book *A Modern Herbal* (1931), as “bold and pleasing”. She said the roots are long and spindle-shaped, thick and fleshy, and are beset with many long, descending rootlets. Large specimens sometimes weigh as much as 1.4 kilograms. Angelica produces a green pod-shaped fruit that contains two seeds. Its fragrance, even in the roots, resembles that of celery with sweet earthy undertones, much like a combination of citrus, mint and earth. This strong, pleasant aroma differentiates it from other members of the family. It has an appealing taste and is thus used in a variety



of culinary pursuits. The leaves are used in salads and the stems and seeds are candied into a sweet confection. Due to its pleasant taste angelica is used frequently as a flavouring in liqueurs such as bitters, Chartreuse, Benedictine, vermouth and gin. The flavour suggests that of juniper berries and it is largely used in combination with juniper berries, or in partial substitution for them, by gin distillers.^{2 3 4}

Some botanists believe angelica is native to Syria from where it spread to Europe and became naturalised. It grows wild most abundantly in the Nordic countries. The herb favours moist environments near water sources such as marshes, lakes, streams, and even saltwater bodies (though this is less common). In fact, it favours waterfront cultivation sites to the extent that domestically cultivating the herb is quite a challenge. It is also a relatively hearty plant, able to withstand unseasonably cold periods. Angelica's maturation process is unique. In its first year of growing only leaves are present among the plant's thick stalk. By the second year the plant has a canopy of serrated leaves teaming from its stems. Finally, but not until the third or fourth year of existence, does the angelica plant flower and produce fruit.^{5 6}

Traditional Use

The history of this impressive plant is rich with superstitious folk tales and traditional remedies. For centuries it has had a pagan association with healing powers and it was commonly thought to ward off malevolent spirits and demonic forces. It was seen to have an almost supernatural ability to protect against an often cold and diseased environment. Maud Grieve says angelica was put "in the forefront of all medicinal plants" in John Parkinson's book, *Paradisi in sole paradus terrestris* (1629), a landmark in English horticultural literature. She says angelica has many virtues including "as a protection against contagion, for purifying the blood, and for curing every conceivable malady: it was held a sovereign remedy for poisons, agues [fever] and all infectious maladies."⁷

This mystical reputation explains its common and generic name. One story about how the plant was named relates to the time in 1665 when Europe was decimated by the infamous bacterial disease bubonic plague. Legend has it that a monk dreamed

that he met an angel who showed him a herb that could cure the scourge. The herb was angelica and the monk named it in honour of the angel in his dream. Angelica water was incorporated into the official English plague remedy developed by the Royal College of Physicians in London and called the King's Excellent Plague Recipe.⁸

Another story says the herb receives its name from the biblical figure Saint Michael the Archangel. Reportedly, angelica bloomed faithfully every year on May 8, the day of the feast of Saint Michael, a celebration in Christian tradition. Grieve says "it was held in such esteem that it was called 'The Root of the Holy Ghost.'" During the 17th century angelica became a popular treatment for colds and other respiratory ailments and is still useful for coughs, bronchitis and chest pain, especially when they are accompanied by fever, colds or influenza.⁹

Native Americans had also been using angelica for centuries for respiratory ailments such as tuberculosis and as a mucous expectorant, and it was often incorporated into herbal drinks intended to replenish the body after illness.¹⁰

Angelica fell out of favour by the end of the 17th century, and remained largely undiscovered by the Western world, however it was reintroduced into alternative therapies in European medical culture in the early twentieth century when it was included in the British Pharmaceutical Codex (1934).¹¹

In *The Essential Book of Herbal Medicine*, author Simon Mills sums up its lack of popularity perfectly: "It is difficult to quantify adequately the potential of angelica today. It has indeed been neglected in some quarters, probably due to the passing of the debilitating infectious disease in modern times [written prior to the COVID-19 pandemic]. Yet it is clear that it still has great value. It can certainly be relied upon whenever there is infection, particularly when febrile or subfebrile and involving the digestive system and lungs...Whether angelica belongs to a former age when confrontations with toxins were more vigorous, when it could be relied upon to support and strengthen an embattled body, or whether it still has application in the greyer areas of today's conflicts with pathogenic forces is a very valid question. However, there is no doubt that it still has an important application in its other major role, as a warming restorative in debilitating diseases and

through convalescence. There is probably no better convalescence remedy in the Western materia medica.”¹²

Constituents

Volatile oil especially monoterpene hydrocarbons (including beta-phellandrene, responsible for the slightly minty, citrusy scent and alpha-pinene responsible for the characteristic aroma of pine, turpentine and rosemary) and minor terpenoids (including alpha-phellandrene, sabinene and germacrene D), furanocoumarins (including imperatorin, xanthotoxin, osthala, psoralin, bergapten and angelicin), tannins, resins.^{13 14 15}

Conclusions from studies to date imply that instead of having a solitary active metabolite, the many terpenoids and coumarins present in angelica work together in a synergistic fashion to produce many wonderful health benefits for the body.¹⁶

Actions

Expectorant, anticatarrhal, antispasmodic, antioxidant, anti-inflammatory, diaphoretic, anxiolytic, hepatoprotective, cholagogue, choloretic, digestive tonic, bitter, carminative, circulatory stimulant, vasodilator, urinary antiseptic, diuretic, astringent, antibacterial, emmenagogue.

Pharmacological Activity

Although only a few formal clinical research studies have been performed on angelica, many *in vitro* and *in vivo* studies display promising results for the active constituents in angelica. In current medical culture the plant’s anticarcinogenic and cerebral enhancement properties are being studied and, so far, appear promising. These preclinical studies are not included in the monograph because, while positive *in vitro* and *in vivo* studies are encouraging, their results cannot be extrapolated to the oral use of angelica in living human subjects. They can however serve as promising starting points for future human studies. Indications are based on traditional use.

Cerebral Enhancement Activity

A 2020 multicentre, randomised, double-blind, placebo-controlled prospective trial found that a

supplement containing angelica and ferulic acid (a powerful antioxidant found in the cell wall of plants) may be useful for mild cognitive impairment. The dose contained 200mg of ferulic acid and 40mg of angelica extract. In an examination commonly used to check for cognitive impairment, scores were significantly better at 24 weeks in the active group.¹⁷

An earlier open-label study demonstrated that a daily dose of the same supplement improved behavioural and psychiatric symptoms of dementia such as delusions, hallucinations, aggression and anxiety in frontotemporal lobar degeneration and Lewy body dementia. The study examined the cerebral mood-stabilising effects of angelica in geriatric patients suffering from dementia. In the study 20 patients diagnosed with dementia, ranging in age from 72 to 92, were treated with a therapeutic dose of angelica and ferulic acid. At the end of four weeks, 95% of patients saw reduced symptoms of dementia. Though the outcome of the study was positive further studies, with a larger sample population, must be conducted before any definite conclusions concerning angelica’s efficacy and safety may be made.¹⁸

Indications

- Cough, bronchitis especially when accompanied by fever, cold or influenza
- Digestive problems such as intestinal overactivity, flatulent dyspepsia, eating disorders such as anorexia nervosa, peptic ulcers, colic, poor nutritional uptake such as iron depletion, food allergies and small intestinal bacterial overgrowth (SIBO) accompanied by bloating
- Painful cramping associated with menstruation and labour pains, and intestinal infections
- Anxiety
- Rheumatic inflammation
- Poor circulation, mildly elevated blood pressure, peripheral vascular disease
- Cystitis
- Debility, convalescence, fatigue

Energetics

Bitter, sweet, pungent, hot, dry. ¹⁹

Use in Pregnancy

Not recommended.

Contraindications

Caution should be taken by those foraging angelica as misidentification can be fatal. It is important to be aware of other species that appear very similar to the herb. For example, although not observed growing in Australia, the water hemlock (*Cicuta virosa*) is a very poisonous plant that grows in similar moist habitats to those of angelica and has a similar appearance. Water hemlock is the most poisonous plant in North America. Consuming a quarter of a teaspoon of the root can be fatal within 15 minutes. Angelica is also similar to poison hemlock (*Conium maculatum*). Only those with botanical expertise and experience should forage for potent herbs. ^{20 21}

Diabetics should exercise caution when consuming angelica as it can raise blood sugar levels (as measured by urine analysis).²²

Angelica contains furanocoumarins which are known to possess photosensitising properties. This photosensitivity can be transferred to humans if large amounts of angelica are consumed and the patient has prolonged exposure to bright sunlight, or in some cases on skin contact with the fresh sap of the plant. Therefore patients who take angelica orally, or apply it topically, should be advised of this potential side effect with prolonged exposure to the sun. ^{23 24}

Drug Interactions

Some authorities also suggest that because of the coumarin constituents there is a theoretical potential for angelica to interfere with anticoagulant therapy (such as warfarin). ²⁵

Administration and Dosage

Liquid Extract:	1:1
Alcohol:	45%
Weekly Dosage: ²⁶	10 to 40mL



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