

Garlic (*Allium sativa*)

Common Names: Garlic bulb, garlic clove.

Location: This herb's origin is in Asia.

Description: According to the author of *Prescriptions for Herbal Healing* (2002), "Over 1800 scientific studies support the use of garlic in lowering cholesterol levels and blood sugar, preventing heart attack and stroke, treating infections and cancer. Garlic may be able to reduce the risk of blood clots and inhibit tumors."

Uses: Use garlic to treat high cholesterol, bladder infection, strep throat, vaginosis, yeast infection, atherosclerosis, diabetes, cancer, ear infection, peptic ulcer, parasitic and miscellaneous infection.

Doses: This herb can be taken in clove form, oil form, or as enteric-coated tablets.

Warnings: Be cautious when taking this herb while nursing because it can result in colic baby syndrome

# Garlic Profile

## Introduction

Garlic has been used medicinally, and as a culinary ingredient, for over 5000 years. World folklore is littered with references to its ability to protect us, such as in ancient Greece, where mid-wives hung cloves of garlic on the windows to ward off evil spirits during childbirth. Ancient Koreans ate pickled garlic before passing through the mountains to keep tigers away as it was believed that they hated the smell. The Egyptians used to swear on cloves of garlic in the same way we swear on the Bible today as an act of indicating an honest testimony. It was so highly valued that 15 pounds of garlic could purchase a healthy male slave. The Greeks also used it extensively: Hippocrates recommended it for infections, wounds, cancer and leprosy; Dioscides for heart problems, and Pliny listed it in 61 remedies for a variety of ailments. Currently in the US and Western Europe, garlic is one of the most popular substances used to reduce various risks associated with heart disease. Most of garlic's popularity is based on the herb's well-known folk uses and scientific research on the benefits of garlic for heart health. These health promoting benefits may be experienced by using garlic as both a food ingredient and a dietary supplement. Garlic is odiferous, tasty, and medicinal. The first medical textbook known to have discussed the use of garlic in medicine was the *Collection of Commentaries on the Classic of the Materia Medica* (Ben Cao Zhing Zhi Ju), written over 1,500 years ago.

## Constituents

Allicin, citral, geraniol, linalool, phellandrene, s-methyl-1-cysteine sulfoxide.

## Parts Used

Bulb

## Typical Preparations

Garlic oil can be applied topically, and diced garlic with Epsom salts treats skin abscesses. May be used

liberally in food as a powder, granule or chopped. For convenience it may also be taken as a capsule.

## Summary

The traditional use of garlic in herbal medicine has been to kill parasites. It is used by itself for hookworms and pinworms, and in combination with other herbs for other kinds of parasitic infections. Garlic is also antibacterial, antifungal, and cholesterol-lowering. Garlic has a very long folk history of use in a wide range of ailments, particularly ailments such as ringworm, Candida, vaginitis, colds, flu, and bronchitis, where its fungicidal, antiseptic, tonic and parasiticidal properties have proved of benefit. The plant produces inhibitory effects on gram-negative germs of the typhoid-paratyphoid-enteritis group, indeed it possesses outstanding germicidal properties and can keep amoebic dysentery at bay. It is also said to have anticancer activity. It has also been shown that garlic aids detoxification of chronic lead poisoning. Daily use of garlic in the diet has been shown to have a very beneficial effect on the body, especially the blood system and the heart. For example, demographic studies suggest that garlic is responsible for the low incidence of arteriosclerosis in areas of Italy and Spain where consumption of the bulb is heavy. Recent research has also indicated that garlic reduces glucose metabolism in diabetics, slows the development of arteriosclerosis and lowers the risk of further heart attacks in myocardial infarct patients. Externally, the expressed juice is an excellent antiseptic for treating wounds.

## Precautions

Do not apply to the skin for more than 2 weeks at a time. Avoid when there is fever in long-term deficiency conditions (AIDS, cancer, etc.).

**Botanical:** *Allium sativum* (LINN.)

**Family:** N.O. Liliaceae

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---**Synonym**---Poor Man's Treacle.

---**Part Used**---Bulb.

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The Common Garlic a member of the same group of plants as the Onion, is of such antiquity as a cultivated plant, that it is difficult with any certainty to trace the country of its origin. De Candolle, in his treatise on the *Origin of Cultivated Plants*, considered that it was apparently indigenous to the southwest of Siberia, whence it spread to southern Europe, where it has become naturalized, and is said to be found wild in Sicily. It is widely cultivated in the Latin countries bordering on the Mediterranean.

Dumas has described the air of Provence as being 'particularly perfumed by the refined essence of this mystically attractive bulb.'

**---Description---**The leaves are long, narrow and flat like grass. The bulb (the only part eaten) is of a compound nature, consisting of numerous bulblets, known technically as 'cloves,' grouped together between the membranous scales and enclosed within a whitish skin, which holds them as in a sac.

The flowers are placed at the end of a stalk rising direct from the bulb and are whitish, grouped together in a globular head, or umbel, with an enclosing kind of leaf or spathae, and among them are small bulbils.

To prevent the plant running to leaf, Pliny (*Natural History*, XIX, 34) advised bending the stalk downward and covering it with earth, seeding, he observed, may be prevented by twisting the stalk.

In England, Garlic, apart from medicinal purposes, is seldom used except as a seasoning, but in the southern counties of Europe it is a common ingredient in dishes, and is largely consumed by the agricultural population. From the earliest times, indeed, Garlic has been used as an article of diet.

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**---History---**Garlic was placed by the ancient Greeks (Theophrastus relates) on the piles of stones at cross-roads as a supper for Hecate, and according to Pliny garlic and onion were invoked as deities by the Egyptians at the taking of oaths.

It was largely consumed by the ancient Greeks and Romans, as we may read in Virgil's *Eclogues*. Horace, however, records his detestation of Garlic, the smell of which, even in his days (as much later in Shakespeare's time), was accounted a sign of vulgarity. He calls it 'more poisonous than hemlock,' and relates how he was made ill by eating it at the table of Maecenas. Among the ancient Greeks, persons who partook of it were not allowed to enter the temples of Cybele. Homer, however, tells us that it was to the virtues of the 'Yellow Garlic' that Ulysses owed his escape from being changed by Circe into a pig, like each of his companions.

Homer also makes Garlic part of the entertainment which Nestor served up to his guest Machaon.

There is a Mohammedan legend that:

'when Satan stepped out from the Garden of Eden after the fall of man, Garlick sprang up from the spot where he placed his left foot, and Onion from that where his right foot touched.'

There is a curious superstition in some parts of Europe, that if a morsel of the bulb be chewed by a man running a race it will prevent his competitors from getting ahead of him, and Hungarian jockeys will sometimes fasten a clove of Garlic to the bits of their horses in the belief that any other racers running close to those thus baited, will fall back the instant they smell the offensive odour.

Many of the old writers praise Garlic as a medicine, though others, including Gerard, are sceptical as to its powers. Pliny gives an exceedingly long list of complaints, in which it was considered beneficial, and Galen eulogizes it as the rustics' *Theriac*, or Heal-All. One of its older popular names in this country was 'Poor Man's Treacle,' meaning *theriac*, in which sense we find it in Chaucer and many old writers.

A writer in the twelfth century - Alexander Neckam - recommends it as a palliative for the heat of the sun in field labour, and in a book of travel, written by Mountstuart Elphinstone about 100 years ago, he says that-

'the people in places where the Simoon is frequent eat Garlic and rub their lips and noses with it when they go out in the heat of the summer to prevent their suffering from the Simoon.'

Garlic is mentioned in several Old English vocabularies of plants from the tenth to the fifteenth centuries, and is described by the herbalists of the sixteenth century from Turner (1548) onwards. It is stated to have been grown in England before the year 1540. In Cole's *Art of Simpling* we are told that cocks which have been fed on Garlic are 'most stout to fight, and 50 are Horses': and that if a garden is infested with moles, Garlic or leeks will make them 'leap out of the ground presently.'

The name is of Anglo-Saxon origin, being derived from *gar* (a spear) and *lac* (a plant), in reference to the shape of its leaves.

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---**Cultivation**---The ground should be prepared in a similar manner as for the closelyallied onion.

The soil may be sandy, loam or clay, though Garlic flourishes best in a rich, moist, sandy soil. Dig over well, freeing the ground from all lumps and dig some lime into it. Tread firmly. Divide the bulbs into their component 'cloves' - each fair-sized bulb will divide into ten or twelve cloves - and with a dibber put in the cloves separately, about 2 inches deep and about 6 inches apart, leaving about 1 foot between the rows. It is well to give a dressing of soot.

Garlic beds should be in a sunny spot. They must be kept thoroughly free from weeds and the soil gathered up round the roots with a Dutch hoe from time to time.

When planted early in the spring, in February or March, the bulbs should be ready for lifting in August, when the leaves will be beginning to wither. Should the summer have been wet and cold, they may probably not be ready till nearly the middle of September.

The use of Garlic as an antiseptic was in great demand during the past war. In 1916 the Government asked for tons of the bulbs, offering 1s. per lb. for as much as could be produced. Each pound generally represents about 20 bulbs, and 5 lb. divided up into cloves and planted, will yield about 38 lb. at the end of the growing season, so it will prove a remunerative crop.

The following appeared in the *Morning Post* of December 12, 1922:

*'A Dog's Recovery*

'Mr. W. H. Butlin, Tiptree, records the following experience: A fox-terrier, aged 14 years, appeared to be developing rapidly a pitiable condition, with a swollen neck and an ugly intractable sore at the root of the tail, and dull, coarse coat shedding abundantly. I administered "Yadil Antiseptic" in his drinking water and in less than a month the dog became perfectly sound and well, a *mirabile dictu*, his coat became firm, soft, and glossy.' (Yadil is a patent medicine said to contain Garlic.)

'In cases of arterial tension, MM. Chailley-Bert, Cooper, and Debrey, at the Society of Biology, recommended about 30 drops of alcoholic extract as a remedy. To be administered by the mouth or intravenously.'

Although only the cultivated Garlic is utilized medicinally, all of the other species have similar properties in a greater or less degree. Several of the species of *Allium* are natives of this country.

The CROW GARLIC (*A. vineale*) is widely distributed and fairly common in many districts, but the bulbs are very small and the labour of digging them would be great. It is frequent in pastures and communicates its rank taste to milk and butter, when eaten by cows.

NOTE.--Professor Henslow calls *A. vineale* the Field Garlic, and *A. oleraceum* the Crow Garlic.

RAMSONS (*A. ursinum*) grows in woods and has a very acrid taste and smell, but it also has very small bulbs, which would hardly render it of practical use.

Ransoms is also very generally known as 'Broad-leaved Garlic.'

The FIELD GARLIC (*A. oleraceum*) is rather a rare plant. Both this and the Crow Garlic have, however, occasionally been employed as potherbs or for flavouring. It is an old country notion that if crows eat Crow Garlic, it stupefies them.

Ramsons, the wild Wood Garlic, but for its evil smell would rank among the most beautiful of our British plants. Its broad leaves are very similar to those of the Lily-of-the-Valley, and its star-like flowers are a dazzling white, but its odour is too strong to admit of its being picked for its beauty, and many woods, especially in the Cotswold Hills, are spots to be avoided when it is in flower, being so closely carpeted with the plants that every step taken brings out the offensive odour.

There are many species of *Allium* grown in the garden, the flowers of some of which are even sweet-smelling (as *A. odorum* and *A. fragrans*), but they are the exceptions, and even these have the Garlic scent in their leaves and roots.

**---Constituents---**The active properties of Garlic depend on a pungent, volatile, essential oil, which may readily be obtained by distillation with water. It is a sulphide of the radical Allyl, present in all the onion family. This oil is rich in sulphur, but contains no oxygen. The peculiar penetrating odour of Garlic is due to this intensely smelling sulphuret of allyl, and is so diffusive that even when the bulb is applied to the soles of the feet, its odour is exhaled by the lungs.

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**---Medicinal Action and Uses---**Diaphoretic, diuretic, expectorant, stimulant. Many marvellous effects and healing powers have been ascribed to Garlic. It possesses stimulant and stomachic properties in addition to its other virtues.

As an antiseptic, its use has long been recognized. In the late war it was widely employed in the control of suppuration in wounds. The raw juice is expressed, diluted with water, and put on swabs of sterilized Sphagnum moss, which are applied to the wound. Where this treatment has been given, it has been proved that there have been no septic results, and the lives of thousands of men have been saved by its use.

It is sometimes externally applied in ointments and lotions, and as an antiseptic, to disperse hard swellings, also pounded and employed as a poultice for scrofulous sores. It is said to prevent anthrax in cattle, being largely used for the purpose.

In olden days, Garlic was employed as a specific for leprosy. It was also believed that it had most beneficial results in cases of smallpox, if cut small and applied to the soles of the feet in a linen cloth, renewed daily.

It formed the principal ingredient in the 'Four Thieves' Vinegar,' which was adapted so successfully at Marseilles for protection against the plague when it prevailed there in 1722. This originated, it is said, with four thieves who confessed, that whilst protected by the liberal use of aromatic vinegar during the plague, they plundered the dead bodies of its victims with complete security.

It is stated that during an outbreak of infectious fever in certain poor quarters of London, early last century, the French priests who constantly used Garlic in all their dishes, visited the worst cases with impunity, whilst the English clergy caught the infection, and in many instances fell victims to the disease.

Syrup of Garlic is an invaluable medicine for asthma, hoarseness, coughs, difficulty of breathing, and most other disorders of the lungs, being of particular virtue in chronic bronchitis, on account of its powers of promoting expectoration. It is made by pouring a quart of water, boiled hot, upon a pound of the fresh root, cut into slices, and allowed to stand in a closed vessel for twelve hours, sugar then being added to make it of the consistency of syrup. Vinegar and honey greatly improve this syrup as a medicine. A little caraway and sweet fennel seed bruised and boiled for a short time in the vinegar before it is added to the Garlic, will cover the pungent smell of the latter.

A remedy for asthma, that was formerly most popular, is a syrup of Garlic, made by boiling the bulbs till soft and adding an equal quantity of vinegar to the water in which they have been boiled, and then sugared and boiled down to a syrup. The syrup is then poured over the boiled bulbs, which have been allowed to dry meanwhile, and kept in a jar. Each morning a bulb or two is to be taken, with a spoonful of the syrup.

Syrup made by melting 1 1/2 OZ. of lump sugar in 1 OZ. of the raw expressed juice may be given to children in cases of coughs without inflammation.

The successful treatment of tubercular consumption by Garlic has been recorded, the freshly expressed juice, diluted with equal quantities of water, or dilute spirit of wine, being inhaled antiseptically.

Bruised and mixed with lard, it has been proved to relieve whooping-cough if rubbed on the chest and between the shoulder-blades.

An infusion of the bruised bulbs, given before and after every meal, has been considered of good effect in epilepsy.

A clove or two of Garlic, pounded with honey and taken two or three nights successively, is good in rheumatism.

Garlic has also been employed with advantage in dropsy, removing the water which may already have collected and preventing its future accumulation. It is stated that some dropsies have been cured by it alone.

If sniffed into the nostrils, it will revive a hysterical sufferer. Amongst physiological results, it is reported that Garlic makes the eye retina more sensitive and less able to bear strong light.

The juice of Garlic, and milk of Garlic made by boiling the bruised bulbs in milk is used as a vermifuge.

**---Preparations---**Juice, 10 to 30 drops. Syrup, 1 drachm. Tincture, 1/2 to 1 drachm.

Wine of Garlic - made by macerating three or four bulbs in a quart of proof spirit is a good stimulant lotion for baldness of the head.

Used in cookery it is a great aid to digestion, and keeps the coats of the stomach healthy. For this reason, essential oil is made from it and is used in the form of pills.

If a very small piece is chopped fine and put into chicken's food daily, it is a sure preventative of the gapes. Pullets will lay finer eggs by having garlic in their food *before* they start laying, but when they commence to lay it must be stopped, otherwise it will flavour the eggs.

See:

[ONION](#)

[ASAFETIDA](#)

Mrs. Beeton (in an old edition of her *Household Management*, 1866) gives the following recipe for making 'Bengal MangoChutney,' which she states was given by a native to an English lady who had long been a resident in India, and who since her return to England had become quite celebrated amongst her friends for the excellence of this Eastern relish.

Ingredients. 1 1/2 lb. moist sugar, 3/4 lb. salt, 1/4 lb. Garlic, 1/4 lb. onions, 3/4 lb. powdered ginger, 1/4 lb. dried chillies, 3/4 lb. dried mustard-seed, 3/4 lb. stoned raisins, 2 bottles of best vinegar, 30 large, unripe, sour apples.

*Mode.* The sugar must be made into syrup; the Garlic, onions and ginger be finely pounded in a mortar; the mustard-seed be washed in cold vinegar and dried in the sun; the apples be peeled, cored and sliced, and boiled in a bottle and a half of the vinegar. When all this is done, and the apples are quite cold, put them into a large pan and gradually mix the whole of the rest of the ingredients, including the remaining half-bottle of vinegar. It must be well stirred until the whole is thoroughly blended, and then put into bottles for use. Tie a piece of wet bladder over the mouths of the bottles, after which they are well corked. This chutney is very superior to any which can be bought, and one trial will prove it to be delicious.