

## Health benefits of Garlic

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Garlic, *Allium sativum* L. is a species in the onion family Alliaceae. Garlic has long been used around the world in cooking as well as in medicine. Garlic was rare in traditional English cuisine (though it is said to have been grown in England before 1548, and has been a much more common ingredient in Mediterranean Europe. Builders of the ancient pyramids were said to eat garlic daily for enhanced endurance and strength.



Garlic was placed by the ancient Greeks on the piles of stones at cross-roads, as a supper for Hecate. Roman emperors couldn't eat enough of it, as it was considered an antidote to poisons which were very popular in certain political circles of the time. The Spanish have long used garlic as a preservative which helps to add credence to its anti-bacterial properties and whole books have been devoted to the health benefits of garlic. The inhabitants of Pelusium in lower Egypt, who worshipped the onion, are said to have had an aversion to both onions and garlic as food. European beliefs once considered garlic a powerful ward against demons,

werewolves, and vampires. To ward off vampires, garlic could be worn, hung in windows or rubbed on chimneys and keyholes. Garlic has long been touted as a health booster, but it's never been clear why the herb might be good for you. Now new research is beginning to unlock the secrets of the odoriferous bulb.

Indian curries are incomplete without garlic – a simple ingredient with packed health benefits. It is very strong and bitter but adds an unbelievable flavour to the cuisine. Any description of garlic is incomplete without mentioning its medicinal values. This miracle herb Garlic has been used since time immemorial as a medicine to prevent or treat various diseases and conditions. Garlic has a variety of potent sulphur-containing compounds which are the reason for its characteristic pungent odour. Allicin, the vital compound among them, is known to have great anti-bacterial, anti-viral, anti-fungal and anti-oxidant properties. The benefits of allicin can be best garnered when it's finely chopped, minced or pureed and let sit for some time. Garlic is also a reliable source of selenium.



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Alliin, along with other compounds like ajoene, alliin, etc. found in them also have an effect on the circulatory, digestive and immunological systems of our body and help in lowering blood pressure, detoxification, healing, etc. Garlic has germanium in it. Germanium is an anti-cancer agent, and garlic has more of it than any other herb. In lab tests, mice fed garlic showed no cancer development, whereas mice that weren't fed garlic showed at least some. In fact, garlic has been shown to retard tumor growth in human subjects in some parts of the world.<sup>(4)</sup> Another benefit of garlic is it helps regulate the body's blood pressure. So whether you have problems with low or **high blood pressure**, garlic can help equalize it.<sup>(3)</sup> Garlic helps strengthen your body's defences against **allergies**; helps loosen plaque from the artery walls; helps regulate your **blood sugar levels**; and is the best choice for killing and expelling parasites such as pin worms from the human body.

In addition to all these health benefits, garlic is packed with vitamins and nutrients. Some of these include protein, potassium, **Vitamins A, B, B2 and C, Ca & Zn** and many more <sup>(1)</sup>. In a 12-week, double-blind, placebo-controlled study, allicin powder was found to reduce the incidence of the common cold by over 50%. Garlic and onions are toxic to cats and dogs. Garlic can thin the blood similar to the effect of **aspirin**. Drinking lemon juice or eating a few slices of lemon will stop bad garlic breath. It is traditional to plant garlic on the shortest day of the year. Whether this is for symbolic or practical reasons is unclear. Ferroportin is a protein which helps in iron absorption and release. Diallyl sulphides in garlic increase production of ferroportin and help improve iron metabolism.

Garlic's aphrodisiac property is due to its ability to increase the circulation. Simply put some crushed garlic clove directly on the affected tooth can help relieve toothaches due to its antibacterial and analgesic properties. But be aware that it can be irritating to the gum.

Many researchers believe that obesity is a state of long-term low-grade inflammation. According to recent research, garlic may help to regulate the formation of fat cells in our body. Pre-adipocytes are converted into fat cells (adipocytes) through inflammatory system activity. The anti-inflammatory property of 1, 2-DT (1, 2-vinyldithiin) found in garlic may help inhibit this conversion. This may help prevent weight gain. Garlic increases insulin release and regulates blood sugar levels in diabetics. Applying fat dissolving garlic extracts to corns on the feet and warts on the hands is thought to improve these conditions. Garlic has the ability to moderately lower our blood triglycerides and total cholesterol and reduce arterial plaque formation. Garlic is known to have anti-inflammatory property. It can help the body fight against allergies.

The anti-arthritis property of garlic is due to diallyl sulphide and thiocresmonone. Garlic has been shown to improve allergic airway inflammation (allergic rhinitis). Raw garlic juice may be used to immediately stop the itching due to rashes and bug bites. Daily use of garlic might reduce the frequency and number of colds. Its antibacterial properties help in treating throat irritations. Garlic may also reduce the severity of upper respiratory tract infections. Its benefits in disorders of the lungs like asthma, difficulty of breathing, etc. make it a priceless medicine. Its ability to promote expectoration makes it irreplaceable in chronic bronchitis.

## ↓ REFERENCES

1. Wang Y, Zhang L, Moslehi R et al. *Chine. J Nutr.* 2009, 139(1): 106'112.
2. Zare A, Farzaneh P, Pourpak Z et al. *Iran J Allergy Asthma Immunol.* 2008, 7(3):133-41.
3. Ried K, Frank OR, Stocks NP et al. *BMC Cardiovasc Disord.* 2008, 16;8:13.

4. Tilli CM, Stavast-Kooy AJ, Vuerstaek JD, Thissen MR, Krekels GA, Ramaekers FC, Neumann HA. Arch. Dermatol. Res. 2003, 295(3):117-23.
5. Lee YM, Gweon OC, Seo YJ et al. Nutr. Res. Pract. 2009, 3(2):156-61.
6. Richard S. Rivlin. ." J. Nutr. 2001, 131 (3 ):951S-954S.
7. Jung-Hye Shin, Ji Hyeon Ryu, Min Jung Kang, Cho Rong Hwang, Jaehee Han, Dawon Kang. " Food and Chemical Toxicology. 58:545–551.
8. İlker Durake, Mustafa Kavutcu, Bilal Aytaç, Asli2013,han Avcı, Erdinç Devrim, Hanefi Özbek, Hasan Serdar Öztürk. The Journal of Nutritional Biochemistry. 15 (6) : 373-377, June 2004. Accessed October 17th 2013.
9. Xiao-Feng Zhou et al. Asian Pacific Journal of Cancer Prevention. 2013, 14( 7 ):4131-4134.
10. Tao Zeng, Cui-Li Zhang, Fu-Yong Song, Xiu-Lan Zhao, Li-Hua Yu, Zhen-Ping Zhu, Ke-Qin Xie. Biochimica et Biophysica Acta (BBA) - General Subjects.1830 (10): 4848–4859.
11. Ronny Myhre, Anne Lise Brantsæter, Solveig Myking, Merete Eggesbø, Helle Margrete Meltzer, Margaretha Haugen, and Bo Jacobsson. J. Nutr. July 1, 2013, 143 (7) :1100-1108.