

Benefits of Garlic

From the Connecticut Center for Health

Antioxidant Protection

- Allicin increases blood levels of two antioxidant enzymes: catalase and glutathione peroxidase.
- Acts as an effective antioxidants against the oxidative damage caused by nicotine.
- Protects vascular endothelial cells from oxidant injury.
- Prevents LDL oxidation.
- Inhibits lipid peroxidation in the liver, retarding the aging process in liver cells.
- "Oxygen free radicals are involved in the genesis and maintenance of hypercholesterolemic atherosclerosis ... it can be useful in preventing the development of hypercholesterolemic atherosclerosis."

Anti-Atherogenic

- Helps in preventing the development of hypercholesterolemic atherosclerosis.
- Reduces lipid content in arterial cells and prevents intracellular lipid accumulation.
- Counteracts the effects of a high-sucrose diet in lab animals, minimizing elevations in triglycerides and cholesterol.
- Minimizes or prevents elevations in blood lipids in humans after consumption of a high-fat / cholesterol meal.
- The organic disulphides in garlic can inactivate the thiol groups in the enzyme HMG CoA reductase , thereby inhibiting cholesterol synthesis by the liver.
- "Not only a preventive but possibly also a curative role in arteriosclerosis therapy (plaque regression) may be ascribed to garlic remedies."
- Lowers total cholesterol by 10%; lowers LDL-cholesterol by 15%; lowers triglycerides by 13%; increases HDL-cholesterol by 31%.

Anti-Thrombotic

- The constituent ajoene inhibits platelet aggregation regardless of mechanism of induction.
- Serves as beneficial agent in the prevention of thrombosis.
- Inhibits thrombosis due to vascular damage.
- Increases fibrolytic activity.

Anti-hypertensive (high blood pressure)

- Lowers systolic pressure by 20-30 mm Hg and diastolic by 10-20 mm Hg.
- Inhibits in vitro the enzyme cyclo-oxygenase, which can produce pro-inflammatory and hypertensive prostaglandins.

Anti-Microbial

- 1 mg garlic = 15 Oxford units of penicillin. Garlic has 1% of the potency of penicillin.

- Inhibits *Candida albicans* in animal studies and Cryptococcal meningitis in human trials.
- Exhibits broad-spectrum antimicrobial activity:
 - Gram-positive bacteria: *Bacillus cereus*, *Bacillus subtilis*, *Mycobacterium smegmatis*, *Streptomyces griseus*, *Staphylococcus aureus*, *Lactobacillus plantarum*.
 - Gram-negative bacteria: *Escherichia coli*, *Klebsiella pneumoniae*, and *Xanthomonas maltophilia*.
- Demonstrates in vitro virucidal activity against herpes simplex virus type 1, herpes simplex virus type 2, parainfluenza virus type 3, vaccinia virus, vesicular stomatitis virus, and human rhinovirus type 2.

Tips for Preparing Garlic:

The first step to using garlic (unless you are roasting the entire bulb) is to separate the individual cloves. An easy way to do this is to place the bulb on a cutting board or hard surface and gently, but firmly, apply pressure with the palm of your hand at an angle. This will cause the layers of skin that hold the bulb together to separate.

To separate the skin from the individual cloves, place a clove with the smooth side down on a cutting board and gently tap it with the flat side of a wide knife. You can then remove the skin either with your fingers or with a small knife. If there is a green sprout in the clove's center, gently remove it since it is difficult to digest.

Chopping or crushing stimulates the enzymatic process that converts the phytonutrient alliin into allicin, a compound to which many of garlic's health benefits are attributed. In order to allow for maximal allicin production, wait several minutes before eating or cooking the garlic.

Crush then cook garlic cloves lightly for the most health benefits, say Agricultural Research Service scientists. Garlic's heart-protective phytonutrients-its allicin and thiosulfates- help lower blood pressure and break up clumps of potentially artery-clogging platelets in the bloodstream. Until now, most researchers assumed eating raw whole garlic bulbs would provide the most phytonutrient activity, but when they boiled (3 minutes), baked (200 degrees C) and microwaved both crushed and uncrushed garlic cloves, they discovered that crushing, which frees garlic's beneficial compounds, is responsible for most of its health benefits. **Although cooking for 10 minutes completely suppressed garlic's phytonutrient actions**, *lightly* cooking garlic was no problem-except for **microwaving, which almost entirely stripped garlic of its blood-thinning effects**

A Few Quick Serving Ideas:

Marinate pressed garlic in olive oil and use this flavored oil in dressings and marinades.

Purée fresh garlic, canned garbanzo beans, tahini, olive oil and lemon juice to make quick and easy hummus dip.

Healthy sauté steamed spinach, garlic, and fresh lemon juice.

Add garlic to sauces and soups.

Purée roasted garlic, cooked potatoes and olive oil together to make delicious garlic mashed potatoes. Season to taste.