



Available in 90 capsules

Discussion

Well known as a venerated culinary herb, garlic (*Allium sativum*) has been used for centuries to support health and longevity. It has been found in Egyptian pyramids, ancient Greek temples, medical texts from a variety of cultures, and even on Hippocrates' list of health-promoting compounds.^[1] Garlic is used widely today to support cardiovascular health, antioxidant activity, and immune function.*^[2,3]

Organosulfur Compounds and Antioxidant Activity Many of the health-promoting benefits of garlic are attributed to its array of sulfur-containing compounds. Organosulfur compounds from whole garlic fall into two classes: gamma-glutamylcysteines and cysteine sulfoxides.^[4] Crushing, chopping, and processing garlic results in production of organosulfur compounds that fall into one of four main chemical classes—alliin, allicin, allyl cysteine, and allyl disulfide. Several of these compounds have been studied for their compelling effect on antioxidant activity. Alliin (allylcysteine sulfoxide) was found to scavenge superoxide, while allicin (a thiosulfinate) suppressed its formation. Hydroxyl radicals were scavenged by alliin, allyl cysteine, and allyl disulfide; allyl disulfide was found to be a lipid peroxidation terminator as well.^[5] GarliX contains standardized amounts of gamma-glutamylcysteines, alliin, allicin, thiosulfates, and sulfur.*

Glutathione (gamma-glutamyl-cysteinyl-glycine) is a well-researched component of vital antioxidant systems in the body. Glutathione is also recognized for its role in regulation of cellular events such as DNA and protein synthesis, gene expression, cell-life cycle regulation, signal transduction, cytokine production, and immune response.^[6] Gamma-glutamylcysteine (GGC), an endogenously produced precursor to glutathione, has been found to efficiently detoxify hydrogen peroxide and superoxide anion in the mitochondria. Research suggests that GGC may assume the neuroprotective and antioxidant functions of glutathione as needed.*^[7]

Cardiovascular Health Numerous studies suggest that garlic has a positive effect on plasma lipids, normal fibrinolytic and platelet activity, and the maintenance of blood pressure and blood glucose already

Clinical Applications

- » Supports Healthy Immune System Function*
- » Supports Cardiovascular Health*
- » Promotes Glutathione Synthesis*

*GarliX™ is a standardized extract of garlic (Allium sativum). This concentrated source provides a high yield of the sulfur-containing bioactive compound allicin. Research suggests that garlic supports immune function, antioxidant activity, and the cardiovascular system. Garlic may also support healthy blood pressure and cholesterol levels already within the normal range.**

within the normal range.^[8] A meta-analysis of 26 studies showed that garlic supported total cholesterol and triglyceride metabolism with a significance of $p = 0.001$ and $p < 0.001$ respectively.^[9] Studies suggest that garlic may play a cardioprotective role in maintaining normal levels of oxidized low-density lipoprotein (LDL), nitric oxide production, healthy cytokine balance, and normal endothelial function as well.^[10,11] Garlic-derived organosulfur compounds are converted by erythrocytes into hydrogen sulfide, which in turn supports vasodilation, vascular smooth muscle relaxation, and overall cardiovascular health.^[12] Garlic supplementation had a significant impact on cardiovascular health parameters in select subjects during a 12-week, randomized, single-blind placebo-controlled study.*^[13]

Immune Support In the mid-1900s, Louis Pasteur noted garlic's ability to support immune function, and it is known to have been used for immune support during World War I.^[12] Ongoing research reveals a broad range of immune-supportive properties associated with garlic, especially its allicin component.^[4,14] Allicin appears to react with the thiol groups of a variety of enzymes (including alcohol dehydrogenase, thioredoxin reductase, and RNA polymerase), which, in turn, supports normal microbial balance in the body.^[15] A double-blind placebo-controlled study of 146 volunteers suggests that stabilized allicin compound is significantly effective in supporting and maintaining healthy immune function.*^[16]

Modern-day research appears to confirm the health-promoting properties of garlic that ancient Egyptians, Greeks, Chinese, and Indian cultures embraced for so long. GarliX is an ultra-concentrated garlic formula with standardized levels of several organosulfur compounds designed to support antioxidant, cardiovascular, and immune systems.*

GarliX™ Supplement Facts

Serving Size: 1 Capsule

	Amount Per Serving	%Daily Value
Garlic Extract (<i>Allium sativum</i>)(bulb)(1% allicin)	650 mg	**
** Daily Value not established.		

Other Ingredients: Capsule (hypromellose and water), stearic acid, magnesium stearate, and silica.

DIRECTIONS: Take one capsule daily, or as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

FORMULATED TO EXCLUDE: Wheat, gluten, corn, yeast, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, sesame, ingredients derived from genetically modified organisms, artificial colors, artificial sweeteners, and artificial preservatives.



References

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Additional references available upon request



All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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