

Nutritious Value of Garlic

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Editor

The use of garlic in China dates back thousands of years.¹ It was consumed by ancient Greek and Roman soldiers, sailors, and rural classes. Garlic (*Allium sativum*) is a species in the onion genus, *Allium*. Garlic was rare in traditional English cuisine and has been a common ingredient in Mediterranean Europe.² Garlic was used as an Antiseptic to prevent gangrene during World War I and World War II.³

The serving size of 1-3 cloves (3-9 grams), garlic provides no significant nutritional value, with the content of all essential nutrients below 10% of the Daily Value (DV) (table).⁴ When expressed per 100 grams, garlic contains several nutrients in rich amounts (20% or more of the DV), including vitamins B6 and C, and the dietary minerals manganese and phosphorus. Per 100 gram serving, garlic is also a moderate source (10-19% DV) of certain B vitamins, including thiamin and pantothenic acid, as well as the dietary minerals calcium, iron, and zinc (table). The composition of raw garlic is 59% water, 33% carbohydrates, 6% protein, 2% dietary fiber, and less than 1% fat.⁴

Table No.1: Garlic, raw: Nutritional value per 100g (3.5 oz)

Energy	623 kJ (149 Kcal)	
Carbohydrates	33.06g	
Sugars	1g	
Dietary fiber	2.1g	
Fat	0.5g	
Protein	6.36g	
Vitamins	Quantity	%Dvt
Thiamine (B1)	9.2mg	17%
Riboflavin(b2)	0.11mg	9%
Niacin (B3)	0.7mg	5%
Pantothenic acid (B5)	0.596mg	12%
Vitamin B6	1.2350mg	95%
Folate (B9)	3ug	1%
Choline	23.2mg	5%
Vitamin C	31.2	38%
Minerals	Quantity	%DVt
Calcium	1.81mg	18%
Iron	1.7mg	13%
Magnesium	25mg	7%
Manganese	1.672mg	80%
Phosphorus	153mg	22%
Potassium	401mg	9%
Sodium	17mg	1%
Zinc	1.16mg	12%
Other Constituents	Quantity	
Water	59g	
Selenium	14.2ug	

As of 2015, clinical research to determine the possible effects of consuming garlic on hypertension has found no clear effect.^{5,6} A 2016 meta-analysis indicated there was no effect of garlic consumption in blood levels of lipoprotein(a), a biomarker of atherosclerosis.⁷ Because garlic might reduce platelet aggregation, people taking anticoagulant medication are cautioned about consuming garlic.^{8,9}

A 2016 meta-analysis of case-control and cohort studies found a moderate inverse association between garlic intake and some cancers of the upper digestive tract.¹⁰ Another meta-analysis found decreased rates of stomach cancer associated with garlic intake, but cited confounding factors as limitations for interpreting these studies. Further meta-analyses found similar results on the incidence of stomach cancer by consuming allium vegetables including garlic.¹¹ A 2014 meta-analysis of observational epidemiological studies found that garlic consumption was associated with a lower risk of stomach cancer in Korean people.¹²

A 2016 meta-analysis found no effect of garlic on colorectal cancer.¹³ A 2014 meta-analysis found garlic supplements or allium vegetables to have no effect on colorectal cancers.¹⁴

A 2013 meta-analysis of case-control and cohort studies found limited evidence for an association between higher garlic consumption and reduced risk of prostate cancer, but the studies were suspected as having publication bias. A 2013 meta-analysis of epidemiological studies found garlic intake to be associated with decreased risk of prostate cancer.¹⁵

A 2014 Cochrane review found insufficient evidence to determine the effects of garlic in preventing or treating the common cold.¹⁶ Other reviews concluded a similar absence of high-quality evidence for garlic having a significant effect on the common cold.¹⁷

The sticky juice within the bulb cloves is used as an adhesive in mending glass and porcelain. An environmentally benign garlic-derived polysulfide product is approved for use in the European Union and the UK as a nematocide and insecticide, including for use for control of cabbage root fly and red mite in poultry.

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