

**Therapeutic Properties of Garlic**

Traditional evidence and modern scientific research have approved Garlic has excellent antimicrobial, antiviral, antifungal and hypocholesterolemic actions. These benefit to a large range of therapeutic approaches.

- Help prevent heart disease including atherosclerosis, high cholesterol, high blood pressure, and cancer;
- Help regulate blood sugar levels;
- Prevent and fight the common cold;
- Support cancer-fighting;
- Treatment for intestinal worms and other intestinal parasites, infections (especially chest problems), digestive disorders, and fungal infections such as thrush.

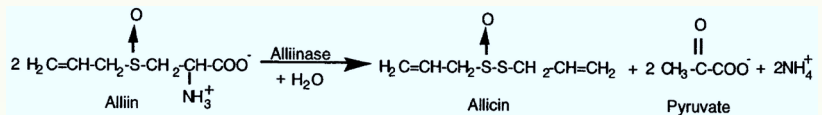


**Garlic Extract**

*We know the secret of Garlic ...*

**Chemistry of Garlic clove & Quality of Garlic extract**

Alliin, an oxygenated sulfur, has been identified to be the component responsible for the antibacterial activity, also causing the odor of garlic. However, the intact garlic clove is odorless and Alliin is in absence. Why? Only until 1951, scientists have isolated, identified and synthesized an oxygenated sulfur amino acid that is present in large quantities in garlic, which they named Alliin and found to be the parent compound of Allicin. They also found Alliin have no antibacterial activity unless converted to Allicin by the action of a garlic enzyme called Alliinase, which is also present in the garlic clove.



Generation of allicin in a garlic clove

The reactive Allicin molecules produced have a very short half-life, as they react with many of the surrounding proteins, including the allinase enzyme, making it into a quasi-suicidal enzyme.

The chemistry character of garlic has explained that having good level of Alliin and Alliinase in the garlic supplement is essential because they can then interact to Allicin in human body. Recent US Pharmacopeia has adopted the monograph of Garlic powdered extract that it shall contain NLT 4% of Alliin and also the Alliinase activity level shall guarantee the Alliin can be more than 99% transformed.

**About ACE™ Garlic Extract**

Alliin and Alliinase are very sensitive compounds that can be easily and rapidly destroyed by improper process. ACE Biotechnology has developed its unique technology to protect and concentrate both compounds, which ensures ACE™ Garlic extracts remain high level of Alliin and Alliinase.



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CFDA, ISO 9001, HACCP, FSQ, KOSHER, HALAL, Organic

Type of Garlic product	Process method	Alliin	Alliinase
Garlic flake/powder	Garlic clove chopped, dried under temperature control and milled.	Low	Low
Garlic oil	Garlic Steam distillation	None	None
Aged Garlic	Garlic bulb aged by fermentation	None	None
Inferior Garlic Extract 1	Basic ratio extract under high temperature processing	None	None
Inferior Garlic Extract 2	Fermentation to inactivate Alliinase to remain Alliin, then extraction and concentration, drying	√	None
*ACE™ Garlic Extract	Specialized effective and safe technology	4% up	Sufficient