

The Antimicrobial Effects of *Allium Sativum* on *Escherichia Coli*

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ABSTRACT:

Allium sativum (Garlic) is an herb that is grown all over the world, and can be found in the homes of many people. This herb has many medicinal properties, but is mainly known for its antimicrobial properties. Fresh garlic contains enzymes called "alliinase" and "alliin". When garlic is crushed or cut into the alliinase converts the alliin into allicin. Allicin is what gives the garlic its antimicrobial properties and odor.

The antimicrobial activity of the *Allium sativum* extract was tested on *Escherichia coli*, a gram-negative bacteria, using the agar-well diffusion method. A test tube containing only *Escherichia coli* was used as the control group. Another test tube containing *Escherichia coli* and the *Allium sativum* extract was used as the test group. It was hypothesized that the *Allium sativum* extract would prevent the growth of the *Escherichia coli*.

With the rising costs of today's society finding cheap and effective alternative treatments, will be helpful by providing medical help for those who can't afford regular healthcare treatments.

Key words: Alliinase, Alliin, Allicin, *Allium sativum*, *Escherichia coli*