

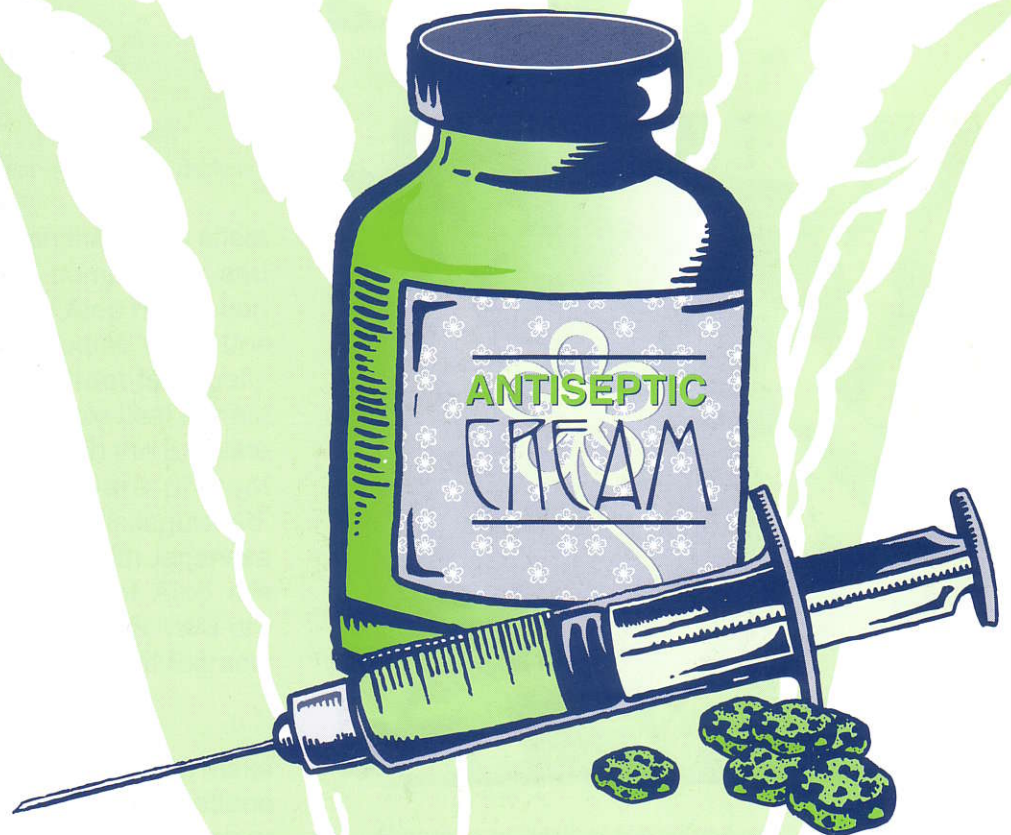
ALOE VERA

Aloe Against Infections

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Aloe vera has been tested against a variety of infections, viral, bacterial and fungal. The exudate of Aloe (aloin) has been confirmed again and again as having direct anti-microbial effects, killing invading pathological organisms. However the principal benefits of Aloe with

regard to infective agents comes from aloin-free or de-aloinized extracts, which work by strengthening the body's own defences. This newsletter closely examines these functions of Aloe.



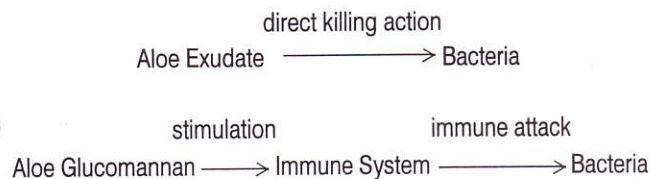
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Introduction

The point has already been made in Newsletter No1 that Aloe, by supporting and stimulating the immune system, greatly augments the ability of the body to resist bacterial and viral infections. This point was made in relation to such Aloe products as Gel and Whole Leaf Extract which contain the glucomannan of Aloe and in which the exudate fraction of Aloe ("Aloin", or "Phenolic" fraction) is only present in very low concentrations or has been removed in processing. It must be emphasized that when Aloe is used in this way, the effect being exerted upon the invading organisms is indirect. The glucomannan is, in itself, by no means capable of killing micro-organisms and can only produce an indirect effect by stimulating the immune system to destroy them. Indeed, glucomannan is almost certainly vulnerable to bacterial degradation itself and will not survive a bacterial fermentation of the Aloe extract containing it.

On the other hand, the components of the "Aloin", or "Phenolic" fraction have been shown, through quite a number of studies, to have a direct destructive action upon bacteria. We therefore have two ways in which these differing components of Aloe may act against bacteria and as it is important for the reader to draw this distinction clearly in the mind, this is represented diagrammatically below.

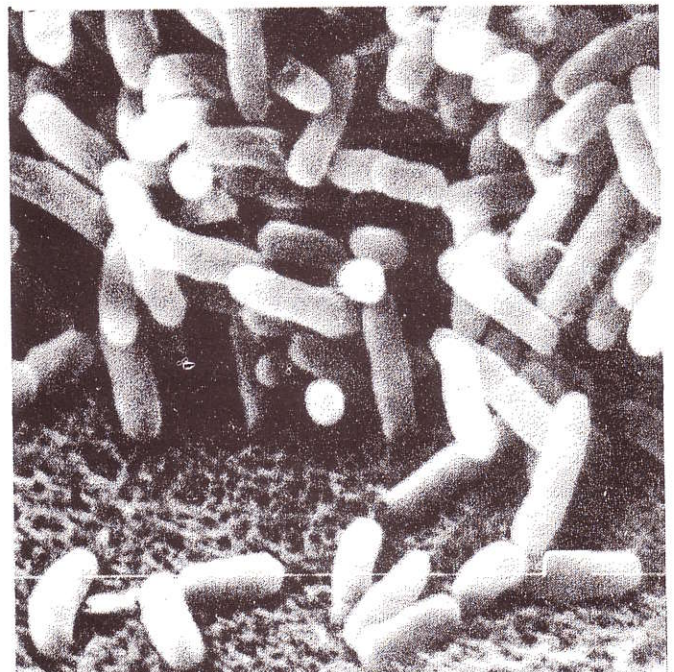


One can only distinguish between these two effect in studies in which the Exudate compounds and the glucomannan components of Aloe have been effectively separated. In any studies with *Aloe arborescens* the Whole Leaf Extract is usually used, and similarly, if *Aloe vera* Whole Leaf Extract is used without carbon filtration, both the Exudate materials and the glucomannan are present together and their actions cannot be distinguished. This seems to be most often the case with Japanese work on the anti-bacterial effects of Aloe are investigated, where species other than *vera* are usually employed, especially Whole Leaf Extracts of *Aloe arborescens*.

Some work reported in the literature omits to make it perfectly clear whether the Aloe preparations being studied contain Exudate or glucomannan or both. This is true of the work of Heggers et al (1979),

in which clear anti-microbial effects are reported.

To help the reader conceptualize the microorganisms involved in infections, suitable illustrations of bacteria and viruses are provided amongst the text.



Pictures of typical Bacillus type, rod-shaped bacteria.