



DIRECT AND INDIRECT

# Immune Enhancing Properties



*Of RAW Aloe Vera*



# Immune Enhancing Properties: Direct and Indirect

Herbal AloeForce is Bio-Protectively Processed to be both directly and indirectly immune enhancing and to demonstrate all the properties the research has documented on fresh Aloe Vera including all the properties of its mucopolysaccharides (also known as beta-linked glucomannans).

## Indirect Immune Enhancing Properties of Aloe Vera

- Antioxidant
- Better Absorption of Nutrients
- Digestive System Improvement
- Digestive and Elimination Cleansing

These properties do support the immune system to be able to work better in that they take some of the burden off it and improve nutritional absorption but these are not the Aloe properties that “directly” improve immune system functioning.

## Direct Immune Enhancing Properties of Aloe Vera

The fresh Aloe Vera plant is unique in that it contains the full range of all sizes of polysaccharides and is the most concentrated plant source of the largest ones known, the beta-linked glucomannans (also known as Acemannan, acetylated polymannose, mucopoly-saccharides, MPS, Aloe polysaccharides).

These very large and complex, intricate polysaccharides found in fresh aloe are responsible for the profound and direct immune enhancing properties demonstrated by scientific research.

### **Aloe Polysaccharides (mucopolysaccharides, beta glucomannans)**

These very large and complex polysaccharides have been shown to be directly immune enhancing by:

1. being able to survive the digestive process
2. being taken up whole, intact into the lymph system
3. stimulating macrophages by fitting their receptor sites

It is this property of being able to stimulate macrophages that make these polysaccharides profoundly immune enhancing in every way because the macrophages are the main immune cells that regulate the workings of the entire immune system.

# The macrophages have a myriad of functions some of which include

1. engulfing foreign bodies
2. releasing growth factor (which stimulates tissue production)
3. the orchestration and stimulation of all cells and all functions of the entire immune and repair system including
  - immune system modulation which is the regulation of the immune response (stimulating it and shutting it down)
  - regulating the inflammation process (increase and decrease)
  - releasing factors that tell the immune cells where to go
  - releasing factors that stimulate the other immune cells to release their antibodies when and where needed.

These polysaccharides are only able to do all these things if and only if they are of a certain size and complex, intricate structure (as only Nature can design) to be able to be recognized by the body, to be taken up into the lymph system and also to be able to fit the receptor sites of macrophages.

These polysaccharides are manufactured by our bodies only until puberty and are difficult to find from food sources. It has been recently discovered that aloe is the most concentrated plant source of these mucopolysaccharides (beta-glucomannans).

It is crucial that the structural integrity of the mucopolysaccharides be protected for them to have direct immune enhancing properties.

## The Potency and Effectiveness of the Mucopolysaccharides

**To maximize the potency of the Mucopolysaccharides their structural integrity must be protected.**

It is crucial that the Aloe not be heated or use any damaging filtering in order to protect the size and shape thus maximize the number of these magnificent complex sugars.

- Heat breaks down the biological structure of these intricate sugars. These mucopolysaccharides begin to break apart above body temperature as do all living, biological designs.
- Filtering processes that filter out water, aloin and other constituents can also break down and/or remove these large polysaccharides along with the "unwanted" substances.

## **To maximize the effectiveness of the Mucopolysaccharides the structural design of the entire Aloe complex must be provided**

Dr. Davis' research on fresh Aloe Vera has shown that the polysaccharide's properties are best demonstrated when they remain intact, within the entire Aloe molecule. It is in this whole form, as originally designed by Nature, balanced with the other 250+ and intricately laced within a base of water, that the polysaccharides are most biologically active, biologically available and have the biological "wisdom" to -

- be able to move so dramatically through the cells and tissues of the body
- survive the digestive system and be taken up into the lymph system to be available throughout the body
- "communicate" with and be recognized and utilized by cells of the body
- "know" where and how to go and fit receptor sites of various cells including macrophages and fibroblasts (tissue production cells)
- To have the supportive cofactors necessary for all these biological activities and processes.

## **Our Bio-Protective Processing Protects and Provides**

- the structure of all the individual nutrients in the Aloe and
- the Life Force held in the intricate structure of the whole Aloe complex as originally designed by Nature

Our Bio-Protected Aloe in Herbal Aloe Force is guaranteed to never experience any applied heat at any time and to never even experience ambient temperatures of above 90° F at any time during processing. This protects both the structure of all the nutrients in the Aloe as well as the biological design of the entire Aloe complex.

Our Bio-Protected aloe is guaranteed to never have water added or removed and never to be concentrated. Our processing never uses any damaging filtering. Thus the complete Aloe in the proportions Nature originally designed is protected and provided.

Although other Aloe products may claim to be immune enhancing, unless you have a written guarantee as to its processing methods and the structure and form of the fresh Aloe is protected, you can assume that any immune enhancement effects may be due mainly to the indirect immune enhancing properties discussed above.

Keeping the Aloe as close to the fresh plant's original design as possible delivers the most potent and biologically effective Aloe. Drinking in the full promise of the fresh Aloe plant in Herbal Aloe Force will deliver the full range of immune enhancing properties.