

**As written and published in the book The Triumph over Hepatitis C by Lloyd Wright.**

## **THE SECRET PROMISE OF ALOE VERA**

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I am a developmental psychologist who has focused on psychological and emotional development for most of my life and career. My becoming aware of the latest research on Aloe Vera has inspired me to examine healthy physical development more closely and the biochemical contribution to overall optimal health and balance.

I found the Aloe Vera plant to be the most fascinating and miraculous plant on the planet. I have spent the last five years investigating Aloe Vera, and it keeps getting more interesting all the time. As you begin to look at the information on Aloe, you may find conflicting information. Please be aware that there is still a great deal of misinformation and misunderstandings about Aloe Vera and Aloe Vera products. It is very hard to believe that all the scientific research on the properties of fresh aloe vera could possibly be real - but they are. The research raised many questions for me. How could something be so profoundly and fundamentally effective for so many areas of health and have only good side effects? Why (if this research is real and Aloe has been around for so long) haven't we heard more about experiences of these miraculous effects? What I found is that the research on fresh Aloe Vera is real and the research on the constituents in fresh Aloe is real. However, most Aloe Vera products available in the marketplace, although they can have some benefits, are not demonstrating the promises documented by the research. Thus, Aloe Vera's True potential has remained a secret.

## **The Effectiveness of Aloe Vera - Fundamental and Profound.**

### **The Immune System:**

Scientific research has demonstrated so many healthful properties of Aloe that one's immediate response has to be, "this can't be real". Aloe Vera enhances the body's own health and healing in so many ways that I wouldn't even have dreamed to pray for them all. Certainly I couldn't have imagined that they would be found all in one plant, in a natural form and with only good side effects.

It was discovered that fresh aloe vera contains over 250 constituents including the full range of all sizes of polysaccharides (complex sugar chains that feed the cells). The largest long-chain polysaccharides have an intricate, multifaceted, multifunctional biological design and are manufactured by the body only until puberty. After puberty we must get these health and growth producing polysaccharides from outside sources. Aloe Vera has been found to be the most concentrated plant source of these largest known and most profound health supporting polysaccharides - the Beta-Glucomannans (also known as Mucopolysaccharides, Acemannan, Acetylated Polymannose).

Research by a pharmaceutical company, Carrington Laboratories, has documented some of the astounding properties of the various sizes of Aloe Vera long-chain sugars. As reported by Dr. Ivan Danhof, they discovered that the smaller-chained polysaccharides have properties that help in balancing blood sugar levels. Although this is still being studied, there is evidence that

they improve insulin receptor cells, with importance for both Type I and Type II diabetes (not to mention balancing sugar cravings). The research has also demonstrated some antiinflammatory properties of these smaller polysaccharides as they mimic the action of steroids. The medium size polysaccharides have been found to be potent antioxidants. The larger chains have demonstrated direct antibacterial properties (staph, strep, E coli...), direct antiviral properties (herpes, influenza, HIV...) and the stimulation body's own tissue regeneration processes (by fitting receptor sites of fibroblasts stimulating them to produce collagen and other factors needed to make new tissue).

The largest, longest-chained polysaccharides, the Beta-Glucomannans (Mucopolysaccharides) have received the most attention and Carrington has patented the Beta 1,4 Glucomannan, as "Acemannan". They documented astounding immune enhancing and tissue production properties of this Aloe polysaccharide. They actually showed that when the Acemannan meets the receptor sites of macrophages it stimulates the macrophage into action and can increase its effectivity ten fold.

The macrophages are the main immune system cells. They are the white blood cells that engulf foreign matter throughout the body, release growth factor to stimulate tissue generation, modulate the inflammation processes and more. They command the other immune cells to release their antibodies- how much, when and where needed.

Carrington's research showed that when the macrophage is stimulated it does increase the production and release of interferon and the interleukins when needed. This fascinates me because here is a natural way that actually helps the body's own mechanisms to increase antibody production as well as increase the effectiveness of getting to where its needed. The body was designed with all the mechanisms to heal itself. Here there is a way to enhance the body's own systems for healing!

The macrophages are also responsible for orchestrating and modulating all the other immune cells and the entire immune system's functioning. They command the immune cell army, signaling where to go, when and how hard to attack and when to cease fire.

So the question of how can one polysaccharide be so great for so many things is partly answered here because the macrophage does so many profound things and the beta-glucomannan is making it 10 times more effective. So, when the literature on aloe vera is talking about direct immune enhancement they are referring to this body of research on polysaccharides by Carrington Laboratories.

### **Supporting Fundamental Health by "Re-Naturing" the Cells.**

Macrophage stimulation and direct immune system support is just part of the story of how Aloe can have such a broad range of health benefits. Aloe Vera is known to be the most penetrating and absorbing of substances. It moves through cells and tissues like no other substance on earth. Research has shown that fresh Aloe will absorb through to all seven layers of skin. Understanding this action has profound implications understanding the effects of Aloe for cellular health. The aloe, led by the large polysaccharide, is of a unique size and shape as to be able to penetrate cell walls dramatically. Sometimes the polysaccharides can become part of the cell membrane fortifying the cell wall. Sometimes the Aloe moves into a cell, bringing all its nutrients and co-factors and also cleanses the cells by taking toxins out. The Aloe feeds, nourishes, fortifies and cleanses the cell, improving cellular metabolism and the cell's optimal functioning. I call this "Re-Naturing" the cell because it can feed the cell in such a way as to make it function as it was originally designed by Nature.

The health benefits of this one property of fresh Aloe alone is mind-boggling. Here is a plant that can improve the health of the cells throughout the body. When the cells are healthy and functioning as they should, all the tissues, glands, organs and systems of the body are also getting "Re-Natured".

### **A Myriad of Nutrients and Co-Factors supporting overall Healthy Functioning.**

Dr. Robert Davis has done a great deal of research on fresh Aloe Vera, the properties of its many nutrients and how the Aloe polysaccharides work. with the in fresh Aloe. Research has found that in addition to the full range of sizes of polysaccharides, fresh Aloe contains over 250 other constituents including: vitamins (only plant source of vit B12); minerals; amino acids; essential fatty acids; a natural form of salicylic acid and plant sterols (with antiseptic, antiinflammatory and analgesic properties); enzymes (including 2 that the body needs of which aloe is the only plant source); glycoproteins; and more. These constituents have properties of their own as well as serve as co-factors and support for many of the body's biochemical processes. Dr. Davis' research, as explained below, shows that all the nutrients in Aloe Vera are crucial to the Aloe polysaccharides' effectiveness and biological availability throughout the body.

### **Isolated Nutrients extracted by science vs the Original Designs Created by Nature.**

Carrington Laboratories isolated and patented Acemannan. They continued their research with orally ingested capsules of Acemannan, isolated from freeze dried Aloe. The clinical results must not have given them the results they expected as they switched to the study of injectable Acemannan for which they have FDA approval for study with animals and humans. What does this tell us? I can't imagine that a pharmaceutical company would rather patent an injectable over a capsule. It certainly made me wonder that maybe the research findings only are experienced if the polysaccharides are injected right into where they are needed.

Is this why we haven't heard of these miraculous immune enhancing effects? Is it because the digestive system destroys the polysaccharides? Is it because the polysaccharides can't get through to the lymph system?

It is Dr. Davis' explanation of his Conductor/Orchestra Theory that most helped me begin to understand Aloe's Secret Promise. Dr. Davis describes how the entire aloe molecule, with the polysaccharides laced in perfect balance with the other myriad of constituents within a base of water, is what is necessary for the Aloe polysaccharides to be available throughout the body and to effectively demonstrate the research on the polysaccharides. The polysaccharide acts as the conductor of the orchestra of all other nutrients. It is the entire "orchestra" that is responsible for the benefits of Aloe "being heard" throughout the body.

As I understand it, the Aloe molecule is balanced with the polysaccharide on one end and the other constituents as the "orchestra" on the other end, making it slightly charged on each end. In this form the Aloe moves through tissue and throughout the body with the biological design that has a biological wisdom and intercellular communication properties. The Aloe works its way to special receptor sites in the digestive tract that ingests the Aloe led by the largest polysaccharides and brings it in "whole" into the lymph system where it is then available to move throughout the body and "know" where to go. Our immune cells send out "chemotactic" signals when "in need of assistance" that other immune cells as well as the whole Aloe are drawn to.

Thus, it is in its "whole" form that the aloe polysaccharides are most biologically active and biologically available to the cells of the body. The isolated polysaccharide lacks the biological wisdom and ability to "move" throughout the body to the cells in need. Thus, the properties of polysaccharides that are not in their original design within the Aloe will only "work" when they happen to "hit on" particular cells.

It is of critical importance that the Aloe not only contain the full range of sizes of polysaccharides but that they also need to be in their originally designed form and balance. Thus, the full promise of Aloe Vera with all the properties that the research has documented will only be fully demonstrated if the Aloe Vera is intact.

### **Why Aloe Vera's True Promise has been Hidden:**

\_\_\_\_\_ So, again, I ask myself - if this research is real then why aren't we hearing more about these miraculous effects of drinking Aloe Vera? And why are the Aloe Vera gel's on the market just OK and not the miraculous tissue regenerating gel that the research suggests?

Processing, Processing, Processing. It dawned on me when I used two different Aloe Juice products that were labeled the exact same way - whole leaf, cold processed, aloin removed - but they tasted different (aloin) and were not equally effective. As my Aloe investigation and search for a "good" Aloe continued I learned it is important to read labels very carefully - what they say and do not say are both important.

It makes sense that if the fresh, whole Aloe "works" then we need an Aloe that is as close to fresh as possible.

### **Processed Aloe Vera vs Aloe's Original Biological Design**

Although the research is real, the effectiveness of any given aloe product will depend on what "is in" and what "is not in" a given product. Demonstration of the scientific research's promises will depend on having the full range of sizes of polysaccharides in the form they need to be to work best in the body. Thus, any processing of the Aloe (to stabilize and purify) needs to capture and protect all the constituents as well as maintain their original design and balance. Beware of an Aloe product that does not guarantee, in writing, that no heat is ever applied from field to bottle. Beware of concentrated or dried Aloes the processing can damage constituents as well as their not being in the original proportions and design. Aloin is a bitter substance found in Aloe that has unwanted, irritating, laxative properties and is responsible for the contraindications for daily use. Be sure your Aloe juice has the aloin removed to less than 10 ppm (laxation occurs at around 2ppm).

### **Heat and Biological Activity.**

Heat can be the most damaging to the important Aloe nutrients. Heat can break down the links between the sugars. When this happens, the long chain sugars no longer have the same size and shape of the polysaccharides that fit the receptor sites of key immune cells and tissue producing cells, nor do they have the other properties that the research has documented.

Heat also breaks down the structure of the enzymes and can also damage amino acids and all the other nutrients. Cells are designed with a biological structure that breaks down with heat

above body temperature. As I understand it, the body's fever that is produced when all else is failing, helps to kill cells, but unlike other aspects of the immune system, heat does not discriminate between our own cells and foreign cells. Thus, it seems logical that temperatures of 100F- 110F are designed to kill the biological activity (life) of cells in our own bodies. I used to think a fever was a side effect of the body not having enough energy to effectively fight off an illness. But that doesn't make sense to me anymore. If the body has no energy for maintaining the homeostasis (balance) of temperature, it is more likely that the body's temperature would drop. When the immune system is being overtaxed and failing it fires up and uses heat to help to break down and destroy the biological structure for life and growth.

This focus on fever highlights the importance of "biological temperatures". When the Aloe Vera (or any food) is heated, intricate biological structures are destroyed along with their biological benefits. Additionally, for Aloe Vera, heat not only destroys the important polysaccharides, enzymes and more but also destroys the balance of the entire Aloe molecule and thus its biological availability and effectiveness throughout the body.

## **Our Bodies are Perfectly Designed.**

Our body is designed in perfect balance to take in, absorb and eliminate nutrients and process and eliminate foreign and toxic matter, fight off ills, repair tissue and grow. If given the proper tools the body is designed to be healthy and strong. The best thing we could do for our bodies is to feed it the nutrients it needs, limit the toxins taken in, not to overtax any one system and to protect the balance of all the systems. So look at what we are doing: we are not eating enough raw organic foods that contain the nutrients we need in the form we need them; we are eating mostly cooked foods which changes the nutrients to forms that not only do not feed the body but can burden the body; by age five the toxins in our environment have overtaxed all the systems of our bodies; we take medicines that put the digestive system out of balance and do nothing to restore that balance and healthy functioning, thus starting a domino effect of problems that eventually overtax the entire immune system's functioning.

All of our body's "ills" can be traced to the body's own systems not working well. Medicine is designed to be crisis intervention (and I am grateful for this) not nutritional health support. We need to learn ways to work with our bodies to support the perfectly designed systems we have. When we treat symptoms of illness, we can be interfering with our natural "wellness" processes. Often we are counteracting the body's own wisdom and mechanisms for health. Is diarrhea a sign of illness? Yes and No. Yes, it is a sign that the body is overloaded with waste that needs to be flushed. But no, it is a sign of wellness in that it is flushing the waste from successful immune warfare. Diarrhea is not an illness, per se. It is a result of the body's fighting an "illness" from harmful microorganisms. What an ingenious wellness system: when the fluids from the fight (mucous) build up, the body takes water and mucous from the system and "flushes" the toxins out.

Enough on that system. Let's move on. Think about the mucous produced with allergies and viruses. It is a waste product that needs to be eliminated. We need to help the body get rid of the mucous, not stop it from coming out. When we stop the mucous elimination process, what happens to the toxic waste? We don't need things to dry up the mucous, but we could use a

"flush button" that would get rid of it in 5 minutes! I wish all the resources for medical science were actually focused on wellness!

Our environment and the foods we eat are overtaxing our body's ability to eliminate toxins. Traditional approaches to health care and medicine not only can destroy the digestive system but also overtax the elimination system, especially the liver. When we stop the symptoms of an illness, we are clogging up the body's immune and elimination systems' natural processes. We can be stopping the body's natural wellness process trying to rid the body of toxic waste. When we do this, we end up overloading the other systems of elimination, especially the kidneys and liver even more.

### **Aloe Vera - The Herbal Answer to Today's Health Crisis.**

Aloe Vera is the best herbal answer I can imagine to support the health and healing mechanisms of the body because "IT" doesn't heal, rather, it FEEDS THE BODY'S OWN SYSTEMS to function optimally and be healthy. It does this, in part, by going into the cells and "Re-Natures" them to function optimally, as they were originally designed. Thus is a fundamental tool to feed life to the cells, tissues, glands, organs, and systems of the body to support optimal health, balance and functioning. In addition Aloe Vera has been shown to have many specific properties that profoundly enhance the functioning of body's own immune/repair systems for health and healing to be up to ten times more effective, thus healing can be ten times faster.

Aloe Vera is a remarkable plant. I urge everyone to examine this for themselves. To understand that nutrients designed by Nature were designed to feed our body perfectly is to understand the importance of feeding the body the fuel it needs to function optimally, as it was originally designed.

The Promise in the Aloe Vera plant has opened my eyes to how we need to look to Nature's original designs for life - to feed life, development and health. It is as though GOD put the Aloe Vera plant here not only as a gift for health but as a metaphor for the miracles possible if we "Trust the Divine Design".

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