ALOE VERA

by KYL L. SMITH, D.C.

The History of Aloe Vera

Aloe vera has been utilized for its healing properties over thousands of years. It is probably the most commonly administered medicinal plant in households throughout the United States because it is well known that it dramatically soothes and heals burns. In addition, aloe vera is known to be topically effective on a wide range of skin conditions including mild cuts and abrasions as well as insect stings, bruises, acne and blemishes, poison ivy, skin ulcers and eczema. It is also said to help stimulate healthy cell regeneration while possessing astringent, emollient, antifungal, antibacterial and antiviral properties. As a direct result of these and other traditional benefits attributed to this healing plant, it is utilized in a vast array of cosmetic, skin and hair products found on the market today.

With all of this said however, there is a formidable problem. As consumers we know these healing benefits can be obtained from simply cutting open a fresh aloe vera leaf and applying the sticky gel to the offending skin condition. But have you ever found these healing benefits in an aloe product you bought off the store shelf? It is not likely, since aloe vera gel degrades very rapidly at room temperature or when exposed to air. In reality, the medicinal properties known and attributed to aloe vera will degrade or decompose in just a matter of hours after exposing the inner gel of the leaf to heat or air. Therefore, bringing the active medicinal and healing properties of aloe to market in a stable liquid, powder or gel presents a significant challenge—however there is one scientifically validated and patented method.

In 1983 a well credentialed group of scientists at Carrington Laboratories invested countless hours in the research and development of a process that would in effect harvest the active medicinal properties of aloe vera while stabilizing these properties. Ultimately this method would allow medicinal products to be manufactured with the stabilized, bioactive properties of aloe and provide for the administration of these products in a convenient, even internally consumable fashion, bringing the benefits of aloe to the entire body, including internal applications and the digestive system. Today patients and their healthcare practitioners are reaping the benefits of the research and development pioneered by this group of research scientists. Their unique, bioactive aloe products are those most frequently utilized by burn care centers across the country and in many regions throughout the world. In addition, extensive medical research has uncovered medicinal and healing properties in this unique bioactive aloe that were never attributed or even imagined in the past. To date, Carrington's research on the stabilization of the medicinal properties of aloe vera has led to extensive documentation of its healing benefits in wound care, including burns and diabetic ulcers, as well as internal effects like modulating the immune system and alleviating digestive and inflammatory conditions, among other ailments. This accumulated body of research spans almost two decades and totals an unprecedented 165 abstracts and research articles, as well as 120 patents issued and pending in 26 countries worldwide. In all, over $70 million has been invested in harvesting the power of aloe in a patented, bioactive, stabilized nutraceutical ingredient marketed under the name Manapol.

What Are The Health Benefits of Complex Carbohydrates or Acetylated Mannans?

Clinical studies have shown the active components in fresh aloe contain a critically important complex carbohydrate fraction called bulk acetylated mannans. This fraction contains both soluble and insoluble pectin and cellulose fragments as well as a biologically active soluble compound called acemannan, which has been shown to be very effective as an immunostimulant and immune system modulator with systemic benefits. Immunomodulators are compounds that enhance immune cell function and cytokine synthesis and have a wide variety of potential uses in the treatment of human and animal disease. Acemannan also possesses significant antiviral qualities which

make it potentially useful in the treatment of infectious diseases as well as demonstrated anti-inflammatory, cholesterol regulating and anticancer properties.

Manapol and the Immune System

Manapol is a natural extract from the inner leaf of the aloe vera L. plant that consists of 25 percent acetylated mannans (primarily acemannan and other galactomannans), 25 percent pectins, 25 percent methylcellulose (naturally occurring fiber) and 25 percent calcium malate. In essence, acemannan found in Manapol stimulates very specific white blood cells called macrophages. Macrophages are cells that patrol throughout the body. They are considered to be the "Sherman tanks" of the immune system. Among their functions they seek out, ingest and destroy bacteria, viruses, tumor cells and other foreign material. In addition they present material to the immune system and in this way "up-regulate" and stimulate the immune response to specific invading pathogens. Macrophages secrete a number of potent chemicals that assist not only in their scavenger role but also in performing their regulatory activities. By-products of macrophage activity include enzymes, growth factors, coagulation factors, prostaglandins and most importantly, cytokines. At least two macrophage derived cytokines are of interest: tumor necrosis factor (TNF), which destroys tumor cells, promotes the growth of fibroblasts in wound healing and stimulates the production of other molecules involved in the immune response and interleukin-1 (IL-1) which enhances the immune response mounted to infection, increases natural killer cell (NK-cell) activity and promotes the growth of new blood vessels. It appears that acemannan's mechanism of action occurs when its soluble carbohydrate fraction is readily absorbed by macrophages and subsequently triggers the release of the major macrophage cytokines such as IL-1, interleukins-6 (IL-6) and tumor necrosis factor (TNF).

The release of a mixture of many different cytokines by activated macrophages can be of therapeutic benefit in multiple diverse situations. For example, the release of TNF or nitric oxide from activated macrophages may result in significant destruction of nearby cancer or virus-infected cells. The release of IL-1 and other cytokines in damaged tissues may enhance the rate of wound healing and increase resistance to bacterial and viral infections. Secondary release of cytotoxic products and interferons may be of benefit in antiviral immunity since it may result in inhibition of viral replication and destroy virus-infected cells. Most importantly, activation of macrophages may enhance their antigen processing ability and in doing so, stimulate the immune responses to specific antigens associated with them. In other words, instead of stimulating the immune system in a general or shotgun fashion, Manapol's stimulation of macrophage cells specifically enhances the immune system's response to specific conditions.

Are There Any Side Effects to Consuming Manapol?

Aloe vera has been utilized for over 2000 years without any reported adverse reaction. Nevertheless, in 1983 the FDA's advisory panel for over-the-counter drugs reviewed 100 reports on aloe vera and found that not one adverse effect had been reported. They concluded, "Clearly the substance is safe." (Zimmerman D. R., *Essential Guide to Non-prescription Drugs).*

Practical Applications for Manapol

In my own personal experience and in practice, I have found the daily consumption of Manapol to be extremely effective in enhancing the immune system. With children I give four to eight ounces (160 to 320 milligrams) of the Manapol Immune Enhancing liquid per day, mixed with some fresh juice, at the first sign of illness (preferably on an empty stomach). I have noticed that this application will cut the duration and immediately reduce the symptoms of sinus infections and the common cold. For myself, I consume 150 milligrams of Manapol every day in a tablet form. If I know I have been exposed or begin to get the symptoms of a cold or flu, I temporarily increase the dosage to 300 or more milligrams. This immediately alleviates the symptomatology associated with colds and the flu or completely prevents their onset. In addition, I have noticed that the time required to heal or recover from athletic injuries such as a bruise, strain or general muscle soreness is greatly reduced while consuming Manapol daily. Therefore, I recommend Manapol to athletes or those who experience soreness after normal exercise.

It is important to note that the consumption of 300 milligrams of Manapol daily for an adult should be the ideal amount to produce an enhanced immune response. In practice, other health practitioners and I have had excellent results with a host of digestive complaints from food allergy and colon disorder sufferers as well as those who suffer from inflammatory bowel conditions. I recommend Manapol to anyone desiring to enhance the immune system, especially as an immune support mechanism in conjunction with the recommendations of an oncologist in the case of cancer, and in the case of inflammatory conditions in conjunction with the guidance of a qualified physician.

Products containing the ingredient Manapol are currently manufactured by Carrington Laboratories and are available through their AloeCeutical division. Carrington also makes its proprietary Manapol raw material available to other companies and manufacturers of customized nutritional products.

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