

Below is our guide to what makes aloe such a powerful healer...

The Aloe Vera leaf is just 0.5 – 1.5% solid, with an average pH value of 4.55!



This solid material contains over 75 different nutrients including vitamins, minerals, enzymes, sugars, anthraquinones or phenolic compounds, lignin, saponins, sterols, amino acids and salicylic acid.

No other natural product contains so many elements beneficial to the body.

Here you'll find a detailed breakdown and description of what's in Aloe Vera and how the different constituents of Aloe Vera all work together to make it such a force for good!

Here is a list of what is in Aloe Vera:

- * Amino Acids
- * Anthraquinones
- * Enzymes
- * Hormones
- * Lignin
- * Salicylic Acid
- * Saponins

- * Sterols
- * Vitamins
- * Minerals
- * Sugars

Unto a detailed description of what's in Aloe Vera:

Amino Acids

Aloe Vera contains 19 of the 20 amino acids required by the human body for good health. The human body however produces only 12 of these. The 8 outstanding amino acids – known as 'essential' amino acids – required by the human body have to be taken in as food and drink.

Aloe Vera contains 7 of the 8 'essential' amino acids:

- * Isoleucine
- * Leucine
- * Lysine
- * Methionine
- * Phenylalanine
- * Threonine
- * Valine

The 12 'non-essential' amino acids contained in Aloe Vera are:

- * Alanine
- * Arginine
- * Asparagine
- * Cysteine
- * Glutamic Acid
- * Glycine
- * Histidine
- * Proline
- * Serine

- * Tyrosine
- * Glutamine
- * Aspartic Acid

Amino acids are the basic building blocks of proteins in the production of muscle tissue. The missing 'essential' Amino acid is Tryptophan, which some researchers today actually claim is among the Amino acids contained in Aloe Vera. Either way i'm sure you agree with me that 19 out of 20 is another excellent score for Aloe Vera!

Anthraquinones

Aloe Vera contains 12 anthraquinones:

- * Aloe Emodin
- * Aloetic Acid
- * Aloin
- * Anthracine
- * Antranol
- * Barbaloin
- * Chrysophanic Acid
- * Emodin
- * Ethereal Oil
- * Ester of Cinnamonic Acid
- * Isobarbaloin
- * Resistannol

These 12 Phenolic compounds are found exclusively in the sap of the Aloe Vera plant. In small quantities, when they do not exert their purgative effect, they aid absorption from the gastro-intestinal tract and have anti-microbial and pain killing effects.

Anthraquinones also provide anti-bacterial, anti-fungal and anti-viral activity. In high concentrations on their own they can be toxic, but they are not toxic within the complex environment of the Aloe Vera plant.

Enzymes

Aloe Vera contains 8 enzymes:

- * Aliiase
- * Alkaline Phosphatase
- * Amylase
- * Carboxypeptidase
- * Catalase
- * Cellulase
- * Lipase
- * Peroxidase

These enzymes contained in Aloe Vera help the breakdown of food sugars and fats aiding digestion and enhancing nutrient absorbtion.

One in particular, Bradykinase, helps to reduce excessive inflammation when applied to the skin topically and therefore reduces pain, whereas others help digest any dead tissues in wounds. Lipases and proteases which break down foods and aid digestion are also present.

Hormones

Aloe Vera contains 2 hormones:

- * Auxins
- * Gibberellins

These hormones provide wound healing & anti-inflammatory activity.

Giberellin, in Aloe Vera acts as a growth hormone stimulating the growth of new cells.

Lignin

Lignin is a Cellulose based substance, which provides penetrating power in Aloe Vera skin preparations and acts as a carrier for other components of Aloe Vera.

Lignin takes the soothing properties of Aloe Vera down to damaged skin areas where it strips the toxic materials, increases the blood circulation to the area and flushes the dead tissue away. It is also keratolytic meaning it destroys and softens hard skin.

Salicylic Acid

Aloe Vera contains Salicylic Acid which is an Aspirin like compound that works as a pain killer. It possesses anti-inflammatory and anti-bacterial properties.

Saponins

Saponins which are Glycosides form about 3% of what's in Aloe Vera gel. They are soapy substances which provide cleansing and antiseptic activity.

They act powerfully as anti-microbials against bacteria, viruses, fungi and yeasts.

Sterols

Aloe Vera contains 4 main plant steroids:

- * Cholesterol
- * Campesterol
- * Lupeol
- * β Sitosterol

These are anti-inflammatory agents. Lupeol also possesses antiseptic and analgesic properties

Vitamins In Aloe

Aloe Vera plants contain a range of Vitamins, Minerals and Sugars. Read our breakdown below for further information...

Vitamins

Aloe Vera contains the following vitamins:

- Vitamin A (Beta-Carotene)
- Vitamin B1 (Thiamine)
- Vitamin B2 (Riboflavin)
- Vitamin B3 (Niacin)
- Vitamin B5
- Vitamin B6 (Pyridoxine)
- Vitamin B12
- Vitamin C

- Vitamin E
- Choline
- Folic Acid

Vitamins A, C and E provide Aloe Vera's antioxidant activity and neutralize free radicals.

The "B" Vitamins and Choline are involved in amino acid metabolism, Vitamin B12 is required for the production of red blood cells, Folic Acid is required in the development of blood cells.

After detailing what vitamins are in Aloe Vera, next is a breakdown of the minerals and sugars contained in Aloe Vera:

Minerals

Several different minerals have been found in Aloe Vera, following are the 10 most important ones:

- Calcium
- Chromium
- Copper
- Iron
- Magnesium
- Manganese
- Potassium
- Phosphorous
- Sodium
- Zinc

These minerals are essential for good health are known to work in synergistic combinations with each other, vitamins and other trace elements

Sugars

Aloe Vera contains 2 Monosaccharides:

- Glucose

- Fructose

They provide anti-inflammatory activity. Aloe Vera also contains Polysaccharides:

Polysaccharides are normally found in all cells of your body. However your body stops producing polysaccharides around the age of 10, after which your body relies completely on outside sources for these vital compounds.

Aloe Vera is an extremely rich source of polysaccharides such as Gluco-mannans or Polymannose, molecules of Mannose linked to molecules of Glucose. This is a polysaccharide which provides the anti-viral, immune modulating activity of Acemannan.

In discussing the components of Aloe Vera, Acemannan deserves a special mention because of the very important role it plays. It stimulates the body's macrophages to produce Interferon and Interleukin, which stop viruses multiplying.

Macrophages are the deep cleansers of the immune system that can destroy small particles such as toxic chemicals and tumours. Acemannan also helps lubricate the joints and line the colon.

The long chain Gluco-mannans are ingested whole from the gut, not broken down like other sugars, and appear in the bloodstream in exactly the same form. This process is known as pinocytosis.

Once in the blood stream they are able to exert their immuno-regulating effect. Some of these polysaccharides are not absorbed but stick to certain cells lining the gut and form a barrier preventing absorption of unwanted material so helping to prevent a "leaking" gut syndrome.

There are probably other as of yet undiscovered components of Aloe Vera but what you have here is a detailed summary of what's known so far!

Having covered what vitamins are in Aloe Vera, find out how the components of Aloe Vera work together 'synergistically' to provide relief and healing for conditions as varied as X-ray burns, sun burn, diabetes and even cancer.