

Considering Aloe Vera with Wildlife

Aloe vera (*Aloe barbadensis*) has been used widely to treat external wounds, burns, and skin inflammations. Folk medicine describes the usage of Aloe for an even wider range of conditions, including ulcers, mucoid discharges, dermatitis, fungal infections, anemia, dental pain, and constipation. Scientific research has confirmed Aloe's effectiveness with burns, wounds, frostbite, conjunctivitis, inflammatory bowel disease, digestive disturbances, and several viruses. In addition to being a popular ingredient in first aid products, Aloe also is used in cosmetics and hair care products. Research continues on Aloe's antibacterial, antiseptic, antimicrobial, antifungal and anti-inflammatory properties, as well as on its effectiveness in treating diabetes, asthma, arthritis, heart disease, and cancer.

Description

Aloe vera, a cactus-like member of the lily family, is a spiky-leaved succulent. While this perennial grows naturally in warm and arid climates, it also is a popular indoor plant due to its wound healing properties. Aloe has short triangular, fleshy leaves with serrated edges that grow from a central base. The fibrous outer part of the leaves protects the softer inner part. This inner layer contains a clear, gel-like sap that may be used topically. The middle of the leaf has a bitter yellow sap containing Anthraquinones that have a laxative effect. Aloe plants may grow six feet tall.

History and Distribution

The Aloe plant is believed to have originated in Northern Africa and the Middle East. Aloe, mentioned in written records as far back as 1,750 B.C., has been used to treat wounds for thousands of years. Aloe is considered an important medicinal and sacred plant in the Indian Ayurvedic tradition. One of the most frequently prescribed medicines in the U.S. during most of the 18th and 19th centuries, Aloe remains a popular medicinal herb because of its healing properties with skin irritations, burns and wounds. Aloe has long been used in this country to treat colic, indigestion, constipation and urinary ailments in animals. The FDA has approved Aloe vera as a food flavoring.

Constituents

There are over 10 active biological components in Aloe, including:

- Vitamins/Minerals – Vitamins C, A, E, B vitamins, B-carotene, Calcium, Zinc, Copper, Magnesium, Manganese, and Phosphorous.
- Enzymes – at least five different enzymes have been identified.
- Amino acids – 22 amino acids.
- Gibberellin – a growth factor that assists healing.
- Polysaccharides – including B1-4 and B1-3.
- Glucomannans - known for immune stimulating properties.



Uses with wild animals

- Topically to reduce irritation, inflammation, itching and pain of wounds, burns, sunburn, frostbite, insect bites, and surgical incisions. Follow effective wound cleaning and management protocols *prior* to using Aloe.
- Topically to reduce inflammation and irritation of the external parts of the eye, such as conjunctiva, eyelid edges, cornea, and lachrymal sac. Treats conjunctivitis and keratitis. Consult with veterinarian.
- Stimulates the immune system when given orally.
- Internally to heal minor injuries, irritations, and inflammations of the digestive tract with a very small dose of Aloe vera administered orally (see Safety). Strive to eliminate cause of gastrointestinal problems, such as wrong diet, overfeeding, and parasites.
- Aloe's antiseptic properties have an inhibitory action on fungi, viruses, and bacteria such as *Streptococcus*, *Staphylococcus*, *Klebsiella* and *Enterobacter* species. Murray, 1995.
- Injections of acemannan, a compound in Aloe, are approved for feline leukemia.

Research results

- Aloe-derived material has fungicidal, antimicrobial, and antiviral properties. Cosmetic Ingredient Review Expert Panel. 2007.
- Researchers concluded that Aloe vera gel appeared to stimulate early wound healing. Swaim, 1992.
- Double-blind clinical trials showed that Aloe vera reduced mild to moderate ulcerative colitis in humans and appeared to be safe. Langmead, 2004.
- Aloe-derived ingredients were not toxic in when given orally to mice and rats for short periods of time. Cosmetic Ingredient Review Expert Panel. 2007.
- Acemannan, an ingredient in Aloe, has been found to be a strong immunostimulant and effective against cancerous tumors in animals. Sheets, 1991, Peng, 1996.
- Aloe appears to work with the body's own immune system to aid healing. Sydiskis, 1991.

Safety

- While significant side effects are not reported in using Aloe as a topical remedy, it should not be used on punctures or deep wounds.
- While some research suggests that internal ingestion of small amounts of Aloe vera gel is safe (Langmead, 2004), particularly in smaller amounts and for 10 days or less, other research recommends not ingesting Aloe because of its purgative and laxative effects.
- Aloe vera gel that is processed for ingestion is available in bottles at natural food stores and some pharmacies. Aloe gel sold in bottles must be refrigerated after opening.
- While some Aloe products are pure, others have additives.
- Aloe gel that is produced for ingestion is generally considered safe for topical use whereas Aloe products prepared and sold for external use should not be ingested. Also, some people may be allergic to Aloe.

Dosage and administration

- There is no dose indicated for the topical administration of fresh Aloe gel. After the wound is thoroughly cleaned, remove a leaf from the plant. Cut the leaf lengthwise to access the gel. Fresh Aloe gel from the leaf or purchased pure Aloe may be applied to the affected area several times a day.
- Examples of Aloe oral doses for animals show that the doses vary but tend to be extremely small. Consult with a veterinarian. Bottled Aloe vera gel may be administered orally with a small syringe or added to food or formula. Pour a very small amount of gel out of the bottle onto a spoon, draw the correct amount into a syringe, pull in formula, and administer orally.
- Avoid contamination (e.g., do not insert anything into the Aloe bottle).
- Puotien recommends oral doses of 1 – 1.5 teaspoons per 10 pounds of animal weight or 1 Tablespoon for 20 pounds, which is 0.1 – 0.2ml /100 grams, administered 1-3 times per day.
- McCluggage recommends 1 drop orally for every 30 grams of weight.

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