



Aloe vera: A plant for many uses

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2. INTRODUCTION

1. ABSTRACT

The plant Aloe vera is used in Ayurvedic, Homoeopathic and Allopathic streams of medicine, and not only tribal community but also most of the people for food and medicine. The plant leaves contains numerous vitamins, minerals, enzymes, amino acids, natural sugars and other bioactive compounds with emollient, purgative, antimicrobial, anti-inflammatory, anti-oxidant, aphrodisiac, anti-helmenthic, antifungal, antiseptic and cosmetic values for health care. This plant has potential to cure sunburns, burns and minor cuts, and even skin cancer. The external use in cosmetic primarily acts as skin healer and prevents injury of epithelial tissues, cures acne and gives a youthful glow to skin, also acts as extremely powerful laxative.

Aloe vera, commonly known as Barbados or Curaçao Aloe, is an herbal medicine with a long tradition of use by a variety of cultures. The succulent plant grows in arid and subtropical climates and is best known for 2 distinct preparations: The traditional uses of the clear mucilaginous gel are manifold, ranging from topical applications to reduce perspiration to oral dosing for diabetes and a range of gastrointestinal ailments. The efficacy of aloe vera gel to treat burn wounds, genital herpes, and seborrheic dermatitis have been shown in clinical trials, but other indications such as psoriasis or internal application for the treatment of type 2 diabetes remain inconclusive. The main limitation of the current clinical knowledge about aloe vera gel is small clinical studies that often lack rigorous methodology.

Keywords: Aloe vera, health and beauty, skin.

Aloe vera (syn. Aloe barbadensis Mill., Fam. Liliaceae), also known as Barbados or Curaçao Aloe, has been used in traditional and folk medicines for thousands of years to treat and cure a variety of diseases. Although the plant is native to northern parts of Africa, it has rapidly spread across the world because its cultivation is easy. An important distinction has to be made between the strongly laxative and purgative latex derived from the bundle-sheath cells and the clear mucilaginous gel. The plant has been used by Egyptians, Assyrians, and Mediterranean civilizations, as well as in Biblical times. A variety of aloe species are still used in folk medicines of Africa and Asia.

Hunters in the Congo reportedly rub their bodies in the clear mucilaginous gel to reduce perspiration; some African tribes apply the gel for chronic conjunctivitis; the gel is used in India for the treatment of asthma.¹

Aloe vera gel is used as an ethnomedicine in Trinidad and Tobago for hypertension.² The most common folk use of aloe has been for the treatment of burn wounds and specifically to aid in the healing process, reduce inflammation, and tissue scarring. The gel was described by Dioscorides and used to treat wounds and mouth infections, soothe itching, and cure sores.³ The use of aloe vera gel as a household remedy in the United States was triggered by reports of its beneficial effect on radiation dermatitis⁴ followed by a boom in cultivation in the 1930s; it remains a common plant and for burns and abrasions.^{1, 5} Important contemporary uses of the gel exist in traditional medicines of India, China, and Mexico, as well as Middle America and the West Indies. Mexico is producing roughly 47% of aloe worldwide with a total sales volume of \$123.5 million US dollars as of 2008.⁶

Despite its widespread popularity, scientific evidence on the aloe vera gel remains sparse. Aloe vera gel is regarded as safe if applied topical with only a few allergic reactions being reported.⁷ The

efficacy of aloe vera gel to treat burn wounds, genital herpes, and seborrheic dermatitis have been shown in clinical trials, but other indications such as psoriasis or internal application for the treatment of type 2 diabetes remain inconclusive.

2.1 History

Aloe vera has been used for medicinal purposes in several cultures for millennia: Greece, Egypt, India, Mexico, Japan and China.¹ Egyptian queens Nefertiti and Cleopatra used it as part of their regular beauty regimens. Alexander the Great, and Christopher Columbus used it to treat soldiers' wounds. The first reference to Aloe vera in English was a translation by John Goodyew in A.D. 1655 of Dioscorides' Medical treatise *De Materia Medica*.² By the early 1800s, Aloe vera was in use as a laxative in the United States, but in the mid-1930s, a turning point occurred when it was successfully used to treat chronic and severe radiation dermatitis.²

2.2 Plant



Fig 1. Plant

The botanical name of Aloe vera is *Aloe barbadensis* miller. It belongs to Asphodelaceae (Liliaceae) family, and is a shrubby or arbore scent, perennial, xerophytic, succulent, pea- green colour plant. It grows mainly in the dry regions of Africa, Asia, Europe and America. In India, it is found in Rajasthan, Andhra Pradesh, Gujarat, Maharashtra and Tamil Nadu.

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4. Taxonomy

Kingdom - Plantae Order -
Asparagales Division -
Spermatophyte Subdivision
- Angiospermae Class -
Monocotyledoneae Genus -
Aloe

Species - *Barbadensis* Mill Synonyms
- Aloe, Musabbar, Kumari Family –
Liliaceae

4.1 GEOGRAPHICAL SOURCE

Aloe vera intrinsic to East and South Africa, though have is always brought into the West and into controversial cultures, but will indeed grow and thrive within the governments bypassing on the Mediterranean. In India, it is found in Rajasthan, Andra Pradesh and Tamil Nadu. It is finically developed in Aruba, Bonarie, Haiti, India, South Africa, the merged together with America and Venezuela.

4.2 MORPHOLOGY

Taste: Bitter

Odour: None

Size & Shape: 60 - 100 cm in cecil patterned with oddly shaped

Flower - Yellow in colour Root -

Fibrou root 30-40 cm length.



Fig 2. Leaves

5. USES

Aloe vera may help treat skin injuries.

- The cosmetic, pharmaceutical, and food industries use aloe vera extensively, and the plant has an estimated annual market value of \$ 13 billion Trusted Source globally.
- Aloe vera is known for its thick, pointed, and fleshy green leaves, which may grow to about 12–19 inches (30–50 centimeters) in length.
- It has antioxidant and antibacterial properties Antioxidants are important for health. Aloe vera gel contains Trusted Source powerful antioxidants belonging to a large family of substances known as polyphenols.
- These polyphenols, along with several other compounds in aloe vera, help inhibit the growth of certain bacteria that can cause infections in humans.
- Aloe vera is known for Trusted Source its antibacterial, antiviral, and antiseptic properties. This is part of why it may help heal wounds and treat skin problems.
- Each leaf contains a slimy tissue that stores water, and this makes the leaves thick. This water filled tissue is the —gell that people associate with aloe vera products.
- The gel contains most of the beneficial bioactive compounds in the plant, including vitamins, minerals, amino acids, and antioxidants.

- It accelerates wound healing People most often use aloe vera as a topical medication, rubbing it onto the skin rather than consuming it. In fact, it has a long history of use in treating sores, and particularly burns, including sunburn. The United States Pharmacopeia describe aloe vera preparations as a skin protectant as early as 1810–1820. Studies suggest that it is an effective topical treatment for first and second degree burns. For example, a review Trusted Source of experimental studies found that aloe vera could reduce the healing time of burns by around 9 days compared with conventional medication. It also helped prevent redness, itching, and infections. The evidence for aloe vera helping heal other types of wound is inconclusive, but the research is promising. Tooth decay and diseases of the gum are very common health problems. One of the best ways to prevent these conditions is to reduce the buildup of plaque, or bacterial biofilms, on the teeth. It accelerates wound healing People most often use aloe vera as a topical medication, rubbing it onto the skin rather than consuming it. In fact, it has a long history of use in treating sores, and particularly burns, including sunburn.

- Helps in hair growth

Like neck propagation, Aloe Vera nanoemulsion helps in facilitating new hair growth as it improves blood distribution to the skin. It this not only provides vital essential vitamins and minerals. Aloe Vera consists enzyme systems that aid heal skin on the skin.

- Keeps rosacea at port

Aloe Vera helps in recovering dryness, pathogens and exorbitantly skin usually. Most these would be significant reasons of breakouts.

- Keeps pimple at harbor

Aloe Vera helps in mending sensitive skin, pathogens and exorbitantly oil. Those this is significant reasons of breakouts.

6. HOW WE VET BRANDS AND PRODUCTS

Aloe vera is a popular medicinal plant with antioxidant and antibacterial properties. It may be useful for reducing dental plaque, accelerating wound healing, preventing wrinkles, and managing blood sugar, among other benefits.

Aloe vera, or *Aloe barbadensis*, is a thick, short-stemmed plant that stores water in its leaves. It is best known for treating skin injuries, but it also has several other uses that could potentially benefit health.

This article lists eight potential health benefits of aloe vera. It also covers some of the risks associated with use.

6.1. It contains healthful plant compounds

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aloe vera extensively, and the plant has an estimated annual market value of \$ 13 billion Trusted Source globally. Aloe vera is known for its thick, pointed, and fleshy green leaves, which may grow to about 12–19 inches (30–50 centimeters) in length. Each leaf contains a slimy tissue that stores water, and this makes the leaves thick. This water filled tissue is the —gel that people associate with aloe vera products. The gel contains most of the beneficial bioactive compounds in the plant, including vitamins, minerals, amino acids, and antioxidants.

6.2. It has antioxidant and antibacterial properties

Antioxidants are important for health. Aloe vera gel contains Trusted Source powerful antioxidants belonging to a large family of substances known as polyphenols. These polyphenols, along with several other compounds in aloe vera, help inhibit the growth of certain bacteria that can cause infections in humans. Aloe vera is known for Trusted Source its antibacterial, antiviral, and antiseptic properties.

This is part of why it may help heal wounds and treat skin problems.

6.3. It accelerates wound healing People most often use aloe vera as a topical medication, rubbing it onto the skin rather than consuming it. In fact, it has a long history of use in treating sores, and particularly burns, including sunburn.

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6.4. It reduces dental plaque Tooth decay and diseases of the gum are very common health problems. One of the best ways to prevent these conditions is to reduce the buildup of plaque, or bacterial biofilms, on the teeth.

In a mouth rinse study Trusted Source of 300 healthy people, researchers compared 100% pure aloe vera juice with the standard mouthwash ingredient chlorhexidine. After 4 days of use, the aloe vera mouth rinse appeared to be just as effective as chlorhexidine in reducing dental plaque. Another study Trusted Source found similar benefits of aloe vera mouth rinse over a 15- to 30-day period. Aloe vera is effective in killing the plaque- producing bacterium *Streptococcus mutans* in the mouth, as well as the yeast *Candida albicans*

6.5. It helps treat canker sores Many people experience mouth ulcers, or canker sores, at some point in their lives. These usually form underneath the lip, inside the mouth, and last for about a week Trusted Source.

Studies have shown that aloe vera treatment can accelerate the healing of mouth ulcers.

For example, in a 7-day study Trusted Source of 180 people with recurrent mouth ulcers, applying an aloe vera patch to the area was effective in reducing the size of the ulcers However, it did not outperform the conventional ulcer treatment: corticosteroids. In another study Trusted Source, aloe vera gel not only accelerated the healing of mouth ulcers, it also reduced the pain associated Aloe vera may also help treat constipation. This time it is the latex, not the gel that provides the benefits. The latex is a sticky yellow residue present just under the skin of the leaf. The key compound responsible for this effect is called aloin, or barbaloin, which has well-established Trusted Source laxative effects.

However, people have raised concerns about safety with frequent use. For this reason, aloe latex has not been available in the U.S. as an over-the-counter medication since 2002 Trusted Source. Contrary to popular belief, aloe vera does not appear to be effective against other digestive conditions, such as irritable bowel syndrome or inflammatory bowel disease. It lowers blood sugar levels People sometimes use aloe vera as a remedy for diabetes. This is because it may enhance insulin sensitivity and help improve blood sugar management. For example, a review Trusted Source of eight studies found that aloe vera could have benefits for people with prediabetes or type 2 diabetes due to its effects on glycemic control. However, the quality of the existing studies is not ideal, so scientists do not currently recommend using aloe vera for this purpose.

7. CONCLUSION

Aloe vera contains many physiologically active substances. It would be worthwhile embarking more scientific investigation on this medicinal plant and to promote its large-scale utilization.

Considering the properties of Aloe vera and its compounds, it can be used to retain skin moisture and integrity and to prevent ulcers.

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