Aloe (Aloe vera)
Common Names: Aloe Vera.
Location: The Aloe plant originated in Africa, but is grown around the world.
Description: The plant consists of huge leaves, which contain a clear gel inside that can be applied externally. A
yellow sap can also be removed to use internally.
Properties: This herb is an anti-inflammatory agent, laxative and immune stimulant.
Uses: Aloe can be used to treat burns and wounds and is commonly applied to sunburns. It can aid in the process
of cancer treatment. This herb can also be used to aid frostbite, hemorrhoids, hangovers, skin disorders, wrinkles
and ulcers.
Doses: Aloe gels can be used for wounds and burns while aloe bitters can be taken internally for constipation.
Warnings: Aloe should not be used internally by women who are breast-feeding. Also, pregnant women or those
who are menstruating should not take aloe internally. Aloe vera use should be limited (for no more than two
weeks straight). Women on birth control should not take aloe vera internally although it may be taken externally.

*Aloe Vera
MEDICINAL: The gel of the inner part of an aloe leaf is used to treat burns, skin rashes, and insect bites, as well as chafed nipples from breastfeeding, when applied to the affected area externally. Internally it can be used to keep the bowels functioning smoothly, or when there is an impaction, although it can cause intestinal cramping when taken internally, and there are other herbs that do this job better. It aids in healing wounds by drawing out infection, and preventing infection from starting. The fresh gel is best to,use, rather than "stabilized" gels found in the stores. The fresh gel was used by Cleopatra to
keep her skin soft and young.
MAGICKAL: Growing an aloe vera plant in the kitchen will help prevent burns and mishaps while cooking. It will also prevent household accidents, and guard against evil. GROWING: Best grown indoors in pots. Those living in the deep South, as in southern Texas or Southern Florida, can grow aloe outdoors. Remember that Aloe is a succulent,
not a cactus, so it needs water to keep the leaves fleshy and juicy.

Cape Aloe Powder Profile

Also known as

Aloe ferox, and Cape Aloe
PLEASE NOTE! A different species of aloe called *Aloe barbadensis*(Curacao aloe) is the common species which is predominantly used to produce Aloe gel and juice, though it is also made into powder.

Cape aloe or *Aloe ferox*, is produced by drying the inner fillet of the leaf of the plant and milling it into a powder. The end result is a powder which is green-brown in color.

Introduction

The cactus-like aloe is a favorite houseplant and home remedy for burns, scrapes, cuts, and scratches. It has been used for millennia to treat skin problems. Alexander the Great is said to have sent his army from Greece to an island off the coast of Somalia just to obtain its crop of aloe.

Constituents

Aloe-emodin, arginine, magnesium, salicylates, serine, vitamin C, and complex polysaccharides including acemannan.

Parts Used

The inner fillet of the leaf, dehydrated and powdered.

Typical Preparations

The clear, slightly slimy gel collected from the fleshy part of the leaf is taken internally for its antioxidant, anticancer, antiviral, and immunostimulant effects, or applied directly to the skin to soothe inflammation and accelerate healing. Aloe gel is used fresh or stabilized. "Bitter Aloe" is a dried latex taken from the "peel" of the leaves, more precisely the double wall of the leafs water sacs. When bitter aloe is first extracted from the leaf, it is yellow, but it turns brown as it dries. Acemannan is a complex carbohydrate chemically extracted from the gel. It is used in experimental pharmaceutical preparations as a treatment for viral infections and cancer. Acemannan is not a whole herb product. The type of Cape Aloe sold by Mountain Rose Herbs is made from the inner fillet of the leaf dehydrated and powdered.

Summary

Aloe is used to treat eczema (atopic dermatitis), frostbite, psoriasis, and wounds from cosmetic dermabrasion and dental procedures involving the gums. Generally, best results are obtained when the wound only involves the upper layers of the skin. Aloe is not recommended for deeper wounds because it causes the skin to tighten too soon, hindering the recovery of the deeper layers. The herb contains at least seven antioxidant compounds that prevent the production of leukotrienes, chemical agents of inflammation released by mast (white blood) cells. Aloe gel releases natural salicylates, compounds related to aspirin, and relieves pain as it encourages healing. Aloe gel is also useful for treating genital herpes. One study found that using an aloe cream reduced the average time for healing from 12 days to 5, and that herpes lesions were 10 times more likely to be completely healed within 10 days with aloe treatment, compared to a placebo. Aloe is also useful for treating seborrhea, a condition of red, scaly, oil eruptions on the eyelids, eyebrows, nose, ear, upper lip, chin, chest, and groin. Aloe creams usually relieve symptoms of seborrhea in 4 to 8 weeks. Aloe "juice" lowers blood sugars of diabetics and helps relieve ulcerative colitis.

Precautions

Internally Cape aloe and its cousins are not recommended while nursing or pregnant. It is a bulk forming laxative and adequate fluids must be taken. Use of this herb may cause gastrointestinal upset, and watery stools. Not recommended for long term use.

Aloe Vera Leaf and Powder Profile

Also known as

Aloe barbadensis, Curacao aloe PLEASE NOTE! A different species of aloe called *Aloe ferox* is known as Cape Aloe. *Aloe barbadensis* is the common species which is predominantly used to produce Aloe gel and juice.

Parts Used

The whole leaf.

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Summary

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Aloes

Botanical: Aloe Perryi (J. G. BAKER), Aloe vera (LINN)
Family: N.O. Liliaceae

- Description
- Constituents
- Varieties
    - Constituents
- History
- Medicinal Action and Uses
- Preparations

---Part Used---Leaves.
---Habitat---Aloes are indigenous to East and South Africa, but have been introduced into the West Indies (where they are extensively cultivated) and into tropical countries, and will even flourish in the countries bordering on the Mediterranean.

The drug *Aloes* consists of the liquid exuded from the transversely-cut bases of the leaves of various species of Aloes, evaporated to dryness.

---Description---They are succulent plants belonging to the Lily family, with perennial, strong and fibrous roots and numerous, persistent, fleshy leaves, proceeding from the upper part of the root, narrow, tapering, thick and fleshy, usually beset at the edges with spiney teeth. Many of the species are woody and branching. In the remote districts of S.W. Africa and in Natal, Aloes have been discovered 30 to 60 feet in height, with stems as much as 10 feet in circumference.

The flowers are produced in erect, terminal spikes. There is no calyx, the corolla is tubular, divided into six narrow segments at the mouth and of a red, yellow or purplish colour. The capsules contain numerous angular seeds.

The true Aloe is in flower during the greater part of the year and is not to be confounded with another plant, the *Agave* or American Aloe (*Agave Americana*), which is remarkable for the long interval between its periods of flowering. This is a succulent plant, without stem, the leaves being radical, spiney, and toothed. There is a variety with variegated foliage. The flower-stalk rises to many feet in height, bearing a number of large and handsome flowers. In cold climates there is usually a very long

interval between the times of its flowering, though it is a popular error to suppose that it happens only once in a hundred years for when it obtains sufficient heat and receives a culture similar to that of the pineapple, it is found to flower much more frequently. Various species of Agave, all of which closely resemble each other, have been largely grown as ornamental plants since the first half of the sixteenth century in the south of Europe, and are completely acclimatized in Spain, Portugal and Southern Italy, but though often popularly called Aloes all of them are plants of the New World whereas the true Aloes are natives of the Old World. From a chemical point of view there is also no analogy at all between Aloes and Agaves.

Although the Agave is not employed medicinally, the leaves have been used in Jamaica as a substitute for soap, the expressed juice (a gallon of the juice yields about 1 lb. of the soft extract), dried in the sun, being made into balls with wood ash. This soap lathers with salt water as well as fresh. The leaves have also been used for scouring pewter and kitchen utensils. The inner spongy substance of the leaves in a decayed state has been employed as tinder and the fibres may be spun into a strong, useful thread.

The fleshy leaves of the true *Aloe* contain near the epidermis or outer skin, a row of fibrovascular bundles, the cells of which are much enlarged and filled with a yellow juice which exudes when the leaf is cut. When it is desired to collect the juice, the leaves are cut off close to the stem and so placed that the juice is drained off into tubs. This juice thus collected is concentrated either by spontaneous evaporation, or more generally by boiling until it becomes of the consistency of thick honey. On cooling, it is then poured into gourds, boxes, or other convenient receptacles, and solidifies.

Aloes require two or three years' standing before they yield their juice. In the West Indian Aloe plantations they are set out in rows like cabbages and cutting takes place in March or April, but in Africa the drug is collected from the wild plants.

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---Constituents---The most important constituents of Aloes are the two Aloins, Barbaloin and Isobarbaloin, which constitute the so-called 'crystalline' Aloin, present in the drug at from 10 to 30 per cent. Other constituents are amorphous Aloin, resin and Aloe-emodin. The proportion in which the Aloins are present in the respective Aloes is not accurately known.

The manner in which the evaporation is conducted has a marked effect on the appearance of the Aloes, slow and moderate concentration tending to induce crystallization of the Aloin, thus causing the drug to appear opaque. Such Aloes is termed 'livery' or hepatic, and splinters of it exhibit minute crystals of Aloin when examined under the microscope. If, on the other hand, the evaporation is carried as far as possible, the Aloin does not crystallize and small fragments of the drug appear transparent; it is then termed 'glassy,' 'vitreous,' or 'lucid' Aloes and exhibits no crystals of Aloin under the microscope.

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---Varieties---The chief varieties of Aloes are Curacao or Barbados, Socotrine (including Zanzibar) and Cape. Other varieties of Aloes, such as black 'Mocha' Aloes, occasionally find their way to the London market. *Jafferabad* Aloes, supposed to be the same as 'Mocha' Aloes, is of a black, pitch-like colour and a glassy, somewhat porous fracture; it is the product of *Aloe Abyssinica* and is imported to Bombay from Arabia. It does not enter into English commerce. *Musambra Aloes* is made in India from *A. vulgaris*. *Uganda* Aloes, imported from Mossel Bay, not from Uganda, is a variety of Cape Aloes produced by careful evaporation. *Natal* Aloes, another South African variety, is no longer a commercial article in this country. The *A. Purificata* of the United States Pharmacopoeia is prepared by adding Alcohol to melted Aloes, stirring thoroughly, straining and evaporating the strained liquid. The product

occurs in irregular, brittle, dull- brown or reddish pieces and is almost entirely soluble in Alcohol.

Curacoa Aloes is obtained from *A. chinensis* (Staud.) *A. vera* (Linn.) and probably other species. It was formerly produced on the island of Barbados, where it was largely cultivated, having been introduced at the beginning of the sixteenth century, and is still frequently, but improperly called *Barbados Aloes*. It is now almost entirely made on the Dutch islands of Curacoa, Aruba and Bonaire by boiling the Aloe juice down and pouring the viscid residue into empty spirit cases, in which it is allowed to solidify. Formerly gourds of various sizes were used (usually containing from 60 to 70 lb.) but Aloes in gourds is now seldom seen. It is usually opaque and varies in colour from bright yellowish or rich reddish brown to black. Sometimes it is vitreous and small fragments are then of a deep garnet-red colour and transparent. It is then known as 'Capey Barbados' and is less valuable, but may become opaque and more valuable by keeping. Curacoa Aloes possesses the nauseous and bitter taste that is characteristic of all Aloes and a disagreeable, penetrating odour. It is almost entirely soluble in 60 per cent alcohol and contains not more than 30 per cent of substances insoluble in water and 12 per cent of moisture. It should not yield more than 3 per cent of ash.

Commercial Aloin is obtained usually from Curacoa Aloes.

Solutions of Curacoa and other Aloes gradually undergo change, and may after a month no longer react normally, and may also lose the bitterness natural to Aloes.

Socotrine Aloes is prepared to a certain extent on the island of Socotra, but probably more largely on the African and possibly also on the Arabian mainland, from the leaves of *A. Perryi* (Baker). It is usually imported in kegs in a pasty condition and subsequent drying is necessary. It may be distinguished principally from Curacoa Aloes by its different odour. Much of the dry drug is characterized by the presence of small cavities in the fractured surface, but the variety of Socotrine Aloes distinguished as *Zanzibar Aloes* often very closely resembles Curacoa in appearance and is usually imported in liver-brown masses which break with a dull, waxy fracture, differing from that of Socotrine Aloes in being nearly smooth and even. When it is prepared, it is commonly poured into goat skins, which are then packed into cases.

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---Constituents---The name 'Socotrine' Aloes is officially applied to both Socotrine and Zanzibar Aloes. Its chief constituents are Barbaloin (formerly called Socaloin and Zanaloin) and B. Barbaloin, no Isobarbaloin being present in this variety of Aloes. Resin water-soluble substances other than Aloin and Aloe-emodin are also present.

Socotrine Aloes should be of a dark, reddish-brown colour, and almost entirely soluble in alcohol. Not more than 50 per cent should be insoluble in water and it should yield not more than 3 per cent of ash. Garnet-coloured, translucent Socotrine Aloes is not now found in commerce, though fine qualities of Zanzibar Aloes are sometimes slightly translucent. Samples of the drug which are nearly black are unfit for pharmaceutical purposes. The odour of Zanzibar Aloes is strong and characteristic, and its taste nauseous and bitter.

Cape Aloes is prepared in Cape Colony from *A. ferou* (Linn.), *A. spicata* (Thumb.) *A. Africana, A. platylepia* and other species of Aloe. It possesses more powerfully purgative properties than any other variety of the drug and is preferred to other varieties on the Continent, but is chiefly employed in this country for veterinary purposes only though for this purpose the Curacoa Aloes is as a rule preferred. Another form of the drug used for veterinary purposes, called *Caballine* or *Horse Aloes*, usually consists of the residue from the purification of the more valuable sorts.

Cape Aloes almost invariably occurs in the vitreous modification; it forms dark coloured masses which break with a clean glassy fracture and exhibit in their splinters a yellowish, reddish-brown or greenish tinge. Its translucent, glossy appearance and very characteristic, red-currant like odour sufficiently distinguish it from all other varieties of Aloes.

Uganda Aloes is also obtained from *A. ferox*. It occurs in bricks or fragments of hepatic, yellowish-brown colour, with a bronze gold fracture and its odour resembles that of Cape Aloes.

Cape Aloes contains 9 per cent or more of Barbaloin (formerly known as Capaloin) and B. Barbaloin. Only traces of Capalores not annol combined with paracumaric acid. Cape Aloes should not contain more than 12 per cent of water; it should yield at least 45 per cent of aquoeus extract but not more than 2 per cent of ash Uganda Aloes yields about 6 per cent of Aloin, part of which is B. Barbaloin. The leaves of the plants from which Cape Aloes is obtained are cut off near the stem and arranged around a hole in the ground, in which a sheepskin is spread, with smooth side upwards. When a sufficient quantity of juice has drained from the leaves it is concentrated by heat in iron cauldrons and subsequently poured into boxes or skins in which it solidifies on cooling. Large quantities of the drug are exported from Cape Town and Mossel Bay.

Natal Aloes. The source of this variety which is seldom imported, is not yet definitely ascertained, but it is probably prepared from one or more species of Aloe, probably including *A. ferox*. Natal Aloes is prepared with greater care than Cape Aloes the leaves being cut obliquely into slices and the juice allowed to exude in the hot sunshine, after which it is boiled down in iron pots the liquid being stirred until it becomes thick and then poured into wooden cases to solidify. Natal Aloes is much weaker than any other variety, having little purgative action on human beings, apparently because it contains no Emodin. It is no longer of commercial importance. It resembles Cape Aloes in odour and occurs in irregular pieces which are almost always opaque and have a characteristic, dull greenish-black or brown colour. It is much less soluble than Cape Aloes. It has not a glassy fracture like that of Cape Aloes and when powdered is of a greenish colour.

Good Aloes should yield 40 per cent of soluble matter to cold water.

Both Curacoa and Cape Aloes in powder give a crimson colour with nitric acid, Socratine Aloes powder touched with nitric acid does *not* give a crimson colour.

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---History---The Mahometans, especially those in Egypt, regard the Aloe as a religious symbol, and the Mussulman who has made a pilgrimage to the shrine of the Prophet is entitled to hang the Aloe over his doorway. The Mahometans also believe that this holy symbol protects a householder from any malign influence.

In Cairo, the Jews also adopt the practice of hanging up the Aloe.

In the neighbourhood of Mecca, at the extremity of every grave, on a spot facing the epitaph, Burckhardt found planted a low shrubby species of Aloe whose Arabic name, *saber*, signifies *patience*. This plant is evergreen and requires very little water. Its name refers to the waiting-time between the burial and the resurrection morning.

All kinds of Aloes are admirably provided by their succulent leaves and stems against the drought of the countries where they flourish. The cuticle which covers every part of the plant is, in those which contain a great quantity of pulpy material, formed so as to imbibe moisture very easily and to evaporate it very slowly. If the leaf of an Aloe be separated from the parent plant, it may be laid in the sun for several

weeks without becoming entirely shrivelled; and even when considerably dried by long exposure to heat, it will, if plunged into water, become in a few hours plump and fresh.

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---Medicinal Action and Uses---The drug Aloes is one of the safest and best warm and stimulating purgatives to persons of sedentary habits and phlegmatic constitutions. An ordinary small dose takes from 15 to 18 hours to produce an effect. Its action is exerted mainly on the large intestine, for which reason, also it is useful as a vermifuge. Its use, however, is said to induce Piles.

From the *Chemist and Druggist* (July 22, 1922):

> '*Aloes*, strychnine and belladonna in pill form was criticized by Dr. Bernard Fautus in a paper read before the Chicago branch of the American Pharmaceutical Society. He pointed out that when given at the same time they cannot possibly act together because of the different speed and duration of the three agents. *Aloin is slow in action*, requiring from 10 to 12 hours. Strychnine and Atropine, on the other hand, are rapidly absorbed, and have but a brief duration of action.'

Preparations of Aloes are rarely prescribed alone, they require the addition of carminatives to moderate the tendency to griping. The compound preparations of Aloes in use generally contain such correctives, but powdered Aloes and the extracts of Aloes represent the crude drug.

Aloes in one form or another is the commonest domestic medicine and is the basis of most proprietary or so-called 'patent' pills.

There is little to choose medicinally between the Curacoa and Socotrine varieties, but the former is somewhat more powerful, 2 grains of Curacoa Aloes being equal to 3 grains of Socotrine Aloes in purgative action. The latter is more expensive, but varies much in quality.

Aloes is the purgative in general uses for horses, it is also used in veterinary practice as a bitter tonic in small doses, and externally as a stimulant and desiccant.

Aloes was employed by the ancients and was known to the Greeks as a production of the island of Socotra as early as the fourth century B.C. The drug was used by Dioscorides, Celsus and Pliny, as well as by the later Greek and Arabian physicians, though it is not mentioned either by Hippocrates or Theophrastus.

From notices of it in the Anglo-Saxon leech-books and a reference to it as one of the drugs recommended to Alfred the Great by the Patriarch of Jerusalem, we may infer that its use was not unknown in Britain as early as the tenth century. At this period the drug was imported into Europe by way of the Red Sea and Alexandria. In the early part of the seventeenth century, there was a direct trade in Aloes between England and Socotra, and in the records of the East Indian Company there are notices of the drug being bought of the King of Socotra, the produce being a monopoly of the Sultan of the island.

The word Aloes, in Latin *Lignum Aloes*, is used in the Bible and in many ancient writings to designate a substance totally distinct from the modern Aloes, namely the resinous wood of *Aquilaria agallocha*, a large tree growing in the Malayan Peninsula. Its wood constituted a drug which was, down to the beginning of the present century, generally valued for use as incense, but now is esteemed only in the East.

A beautiful violet colour is afforded by the leaves of the Socotrine Aloe, and it does not require a mordant to fix it.

---Preparations---Fluid extract: dose, 5 to 30 drops. Powdered extract: dose, 1 to 5 grains. Comp decoc., B.P.: dose, 1/2 to 2 OZ. Tincture B.P.: dose, 1/4 to 2 drachms. Tincture aloes myrrh, U.S.P.: dose, 30 drops.