

## Nature's pharmacy

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Long before the Andrex puppy made it famous - by promoting a brand of moist, herbal toilet paper providing "an extra level of care for all the family" (whatever that means) - aloe vera was known to be good for bottoms. When mixed with turpentine, tallow and white lead, it was traditionally smeared on the undersides of ships to protect the timbers from woodworm and barnacles. In the Indian system of ayurvedic medicine, the leaf pulp of the exotic lily was used to shrink haemorrhoids, act as a powerful laxative and purge intestinal worms. The ancient Greeks used aloe vera on just about every part of the body and Pliny recommended that the crushed leaves be rubbed on "ulcerated male genitalia".

Despite this colourful history, aloe vera or "true" aloe, the most medicinal of the 200 or so varieties of the plant - is best known as a moisturiser in skin creams and as a cooling balm for sunburn, psoriasis and eczema. Slice off the tip of one of its blade-like leaves, and the succulent plant oozes a thin, clear gel which can be applied directly to the skin.

Because it is self-healing, the same leaf can be cut and used over and over again: within hours, a transparent film forms over the lesion and protects the plant until its magical powers are needed again. The chemical responsible for this A&E double act is aloin, one of 75 substances detected in the gelatinous sap (the main one being water, which accounts for 96% of its volume). Among the other 73 compounds are sterols, poly-saccharides and anthraquinone glycosides - plant sugars known respectively for reducing inflammation, boosting the immune system and purifying the colon.

It is the plant's effect on the skin, however, that has been most widely studied. In 1989, the Journal of the American Podiatric Medical Association reported that aloe vera accelerated wound healing in animals - even when taken orally, rather than rubbed on the skin. The following year, a study in the Journal of Dermatologic Surgery and Oncology concluded that skin recovered more quickly after surgery when dressed with aloe vera gel.

In 18 acne sufferers undergoing facial dermabrasion (where the lesions are scraped away), the side of the face dressed with aloe vera healed 72 hours faster than the side dressed with standard surgical gel. In Thailand, 27 burn patients treated with the herb recovered six days faster than a group treated with Vaseline. The plant has also been shown to minimise frostbite damage - helping 68% of patients to recover without amputation, compared with just 32% for the control group.

Aloe vera is said to exhibit various other healing abilities - from reducing arthritic swelling and lowering blood-glucose levels in diabetics, to slowing the replication of the HIV virus and galvanising the immune system against cancer. All are backed up by one or more clinical studies published in respectable journals. At the opposite end of the health and wellbeing spectrum, the juice of the plant can be rubbed into the scalp to protect against baldness.

Both juice and natural gel are available in health food shops, and both can be used internally - but because of its foul taste, aloe vera is usually taken in the form of a powder, pills or capsules. Products labelled "aloe extract" or "reconstituted aloe vera" are regarded by many herbalists as inferior. A quality preparation will list aloe vera as the primary ingredient and contain anything from 97-99% pure aloe vera. As with all herbs, consult your GP before taking this one - particularly internally. Because aloe vera is a powerful purgative and can induce vomiting, it is unsuitable for use during pregnancy. Though the risk is theoretical rather than observed in patients, it may also react badly with some anaesthetics and drugs used to treat diabetes and high blood pressure.

If you think you are allergic to members of the lily family, don't go anywhere near aloes; their scent is especially vehement. The ancient Egyptians used the desert lily in the embalming process. This was rooted in science rather than art, since some natural compounds found in aloes bind to ammonia - responsible for the stench of rotting corpses - and neutralise it. When added to agricultural animal feed, too, aloe vera reduces faecal odour and makes country life more bearable.