

Why Are HEALx Topical Products Unique?

Our active aloe vera and our nontoxic patented quaternary ammonium solution make our products unique, safe and effective for all species (dogs, cats, exotic mammals, birds and reptiles).

Soother Plus®

A nontoxic topical antimicrobial cream with immediate antipruritic relief for all animals.

Ingredients: A patented monoglyceride suspended in active aloe vera distillate and a patented quaternary ammonium solution



Soother Spray®

A soothing topical spray to reduce superficial itching and provide relief for skin inflammation and irritation.

Ingredients: Distilled water, active aloe vera distillate and a patented quaternary ammonium solution



Rain®

A natural nontoxic, convenient, hydrating topical spray to revitalize the animal's skin, coat or feathers.

Ingredients: Distilled water, active aloe vera distillate, wetting agent (0.0001%)



To promote wound healing in the shortest time possible, with minimal pain, discomfort and scarring to the patient, it is important to explore nutritional and botanical influences. Therefore, for best results, our oral supplements, HEALx Booster® or Sunshine Factor®, should be used in conjunction with our topical products.

All Aloes Are Not the Same

Why do you use aloe in your topical products?

Our aloe vera has over 200 beneficial components, which has been shown in scientific studies to:

- **Reduce postoperative pain.**^{22,29}
- **Help wound healing.** Aloe vera increases the collagen content of the granulation tissue.^{6,10,11,12,13,16,17,22,33}
- **Act as an anti-inflammatory** (suppresses the inflammatory responses by blocking iNOS and COX-2 mRNA expression).^{16,36,42,48,52}
- **Inhibit infectious diseases** by stimulating the host defense mechanism, especially the phagocytic and killing activities of macrophages.⁶⁴
- **Increase re-epithelialization in burn wounds.**^{35,40,43,45}

What type of aloe is used in your topical products?

HEALx topical products contain the distillate of the *Aloe barbadensis* (*vera*) Miller plant.

What is an "aloe vera distillate"?

An aloe vera distillate is a liquid that consists of pure components of a aloe vera plant in its most basic form. It is unique in that this aloe vera distillate is comprised of low molecular weight components, thereby enabling the body to assimilate them in the purest hydrophilic form at the cellular level as opposed to the raw plant or a non-distillate. Topical application of these concentrated components at the treatment area allow for higher concentrations than if they were introduced in any other manner. (See Mode of Action on reverse side.)

Is your aloe organically grown?

Yes! Although we do not seek the organic certification, our aloe vera is grown on organic farms that also practice sustainable agriculture.

Isn't aloe toxic to some species?

The thick greenish substance just beneath the rind in the latex layer of the *Aloe barbadensis* (*vera*) Miller plant is where the aloins and anthraquinones are located. These substances may be irritants to the GI tract and cause cramping, diarrhea and nausea if ingested. We remove the antagonistic parts of these aloins and anthraquinones, but we do not eliminate them, as they have beneficial properties.

Why don't you use preservatives in your products?

In our aloe, the mucopolysaccharide chain is broken down and the sugars are extracted, which increases the shelf life and eliminates the need to add preservatives (like other brands do).



Mode of Action of Our Aloe Vera

There is no single magic ingredient in our aloe vera. The ingredients all work together in a synergistic way to create healing and health benefits. The nine main areas of chemical constituents of our aloe vera include: amino acids, anthraquinones, enzymes, minerals, vitamins, lignins, monosaccharide, polysaccharides, salicylic acid, saponins, and sterols.⁷⁰

- **Naturally-occurring antioxidants:**

Aloe vera contains vitamins C and E and vitamin A precursors that combat free radicals.^{6,46}

- **Bradykinase** reduces excessive inflammation when applied to skin.^{62,26}

- **Saponins** are capable of cleansing and having antiseptic properties against bacteria, viruses, fungi and yeasts.¹

- **Campesterol, sisosterol, lupeol** plant steroids may provide an anti-inflammatory effect.²

- **Salicylic acid** is an aspirin-like compound with anti-inflammatory, analgesic and anti-bacterial properties.^{6,33}

- **Anthraquinones**, such as aloin and emodin, are phenolic compounds that may have anti-inflammatory, antibacterial and antiviral properties.^{1,46}

- **Amino acids** in aloe vera are the building blocks of protein. Animals require 22 amino acids, and their bodies will make all of them except eight essential amino acids. All of these essential amino acids are available in aloe vera as well as most of the other non-essential amino acids.⁶² Data suggests the topical use of amino acids promotes healing.³

- **Lignin** endows aloe vera with its penetrative effect and also carries other ingredients. It can penetrate seven dermal layers.^{1,17}

- **Enzymes** act as biochemical catalysts that break down proteins into amino acids. The main enzymes found in aloe vera are amylase and bradykinase, which stimulate the immune system and act as analgesics and anti-inflammatories. Other enzymes include catalase, cellulase, lipase, oxidase,

alkaline phosphatase, proteolytiase (hydrolyses proteins into their constituent elements), creatine phosphokinase and carboxypeptidase.⁶ Our aloe vera is processed using a special method that preserves the essential properties, which is another unique feature of our topical products.

- **Minerals (zinc and selenium)** combat free radicals.^{6,46}

Mode of Action of Our Quaternary Ammonium

Neutralizing Effect of Quaternary Ammonium Compounds

Soother Spray[®] and Soother Plus[®] contain patented quaternary ammonium compounds, which have a neutralizing effect on pain signals and reduce inflammation and swelling within minutes.

How Quaternary Ammonium Compounds Works

Quaternary ammonium is made in the body as proteins. When these agents are synthesized and used topically, they are excellent pain relievers. According to *Reversing Arthritis: Health & Healing*, "Healthy cells maintain an electrical balance with a positive charge outside the cell and a negative charge inside the cell. When you are injured the cellular membranes are disrupted and their electrical balance is thrown askew. What these quaternary ammonium compounds do (and interestingly, this is the same principle that narcotic and injectable pain medications work on) is reestablish the electrical balance in the cell membranes, thus dulling the pain perception."⁶⁹

Clinical Pharmacology

Mechanism of Action: The active ingredients in Soother[®] products, quaternary ammonium compounds and our aloe vera distillates develop ions with a positive potential which, due to the hydrophilic tendencies of the emulsion, are readily transmitted through the skin. This is believed to assist the body in neutralizing the bioelectrical imbalances in an area of pain, thereby reducing pain signals.

Duration of Action: Duration of pain relief will vary as a function of pathology, but relief starts in minutes and lasts up to hours for many indications.

Drug Interactions and Pharmacodynamic Effects: There are no known significant systemic interactions or adverse effects. Soother[®] products should not be used with other topical or occlusive lotions, which might block effects. Do not use Soother[®] products in or around the eyes.

The Difference Between the Quaternary Ammonium Compound in the Soother[®] Products and Disinfectants

Quaternary ammonium is composed of a large group of substances that vary in their toxicity based on the bonds in the individual compound. Ammonium compounds found in Soother[®] products are from the quad 18 and 28 groups, which are commonly found in human skin and hair products designed to touch the skin.

Disinfectants and cleaners are not in the 18/28 group and have higher levels of toxicity based on the individual compounds used. (Some disinfectants and cleaners are a third-generation quaternary ammonium that has been combined with bis[tri-n-butyltin] oxide for strong bacterial-, fungal- and viral-killing power.)

The Soother[®] products do not contain ammonium products in any of these groups. In addition, the above concentrations in disinfectants and cleaners are much higher than the 18/28 compounds found in Soother[®] products which are less than 2.5% total. Although ingestion of these compounds should be limited, ingestion at the concentrations found in the Soother[®] products would be similar to ingesting a small amount of soap. No adverse effects have been seen in clinical trials.

References

Scan the QR code for a list references and further reading.



The content of this document has been condensed for space. It was developed by veterinary experts using available medical evidence and should be used as a guide only. Specific treatment advice should be sought from a veterinarian.

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