

## Standardization: Involves Measuring the Amount of Certain Chemicals in Aloe Vera Products

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Standardization involves measuring the amount of certain chemicals in products to try to make different preparations similar to each other. It is not always known if the chemicals being measured are the "active" ingredients.

Standardized aloe products are not widely available. Although this is likely not a concern for the use of aloe gel to the skin, it may pose dangers with oral aloe (due to potential lowering of blood sugar levels). Oral aloe preparations often contain 10-30mg hydroxyanthracene derivatives per daily dose, calculated as anhydrous aloin.

**Adults (18 years and older)**      **Topical (on the skin):**      **General use:** Pure Aloe vera gel is often used liberally on the skin. There are no reports that using aloe on the skin causes absorption of chemicals into the body that may cause significant side effects. Skin products are available that contain aloe alone or aloe combined with other active ingredients.

**Psoriasis vulgaris:** Hydrophilic cream of 0.5% (by weight) of a 50% ethanol extract of aloe, combined with mineral and castor oils, three times daily for five consecutive days per week, for up to four weeks has been studied.

**Genital herpes:** Hydrophilic cream of 0.5% (by weight) of a 50% ethanol extract, combined with liquid paraffin and castor oil, three times daily on lesions for five consecutive days per week, for up to two weeks has been studied.

**Oral (by mouth):**      **Constipation:** The dose often recommended is the minimum amount to maintain a soft stool, typically 0.04-0.17g of dried juice (corresponds to 10-30mg hydroxyanthraquinones). As an alternative, in combination with celandin (300mg) and psyllium (50mg), 150mg of the dried juice/day of aloe has been found effective as a laxative in research.

**Diabetes (type 2):** 5-15mL of aloe juice twice daily has been used but safety and efficacy of this dose has not been proven.

**HIV infection:** 1000mg-1600mg of acemannan orally in four equal doses. Effectiveness and safety have not been proven by studies.

**Intravenous/Intramuscular:** Four cases of death have been associated with Aloe vera injections under unclear circumstances. Oral or injected use is not recommended due to lack of safety data.

**Children (younger than 18 years)**      **Topical (on the skin):**      **Topical (skin)** use of aloe gel in children is common and appears to be well tolerated. **Safety** The U.S. Food and Drug Administration does not strictly regulate herbs and supplements. There is no guarantee of strength, purity or safety of products, and effects may vary. You should always read product labels. If you have a medical condition, or are taking other drugs, herbs, or supplements, you should speak with a qualified healthcare provider before starting a new therapy. Consult a healthcare provider immediately if you experience side effects.

**Methodology** This information is based on a systematic review of scientific literature edited and peer-reviewed by contributors to the Natural Standard Research Collaboration ([www.naturalstandard.com](http://www.naturalstandard.com)): Sean Dalton, MD, PhD, MPH (Harvard University); Ivo Foppa, MD, ScD (Harvard University); David Sollars, M.Ac, H.M.C. (New England School of Acupuncture); Catherine Ulbricht, PharmD (Massachusetts General Hospital); Catherine Kirkwood, MPH, CCCJS-MAC (MD Anderson Cancer Center, University of Texas); Samuel Basch, MD (Mt. Sinai Medical Center, NY); Steve Bent, MD (University of California, San Francisco); Cynthia Dacey, PharmD (Natural Standard Research Collaboration); Paul Hammerness, MD (Harvard Medical School); Jennifer Armstrong, PharmD (University of Rhode Island); Ethan Basch, MD (Natural Standard Research Collaboration).