

## Herbal supplements in Dermatology

Josh Weingartner, MD and Anne Miller, MD

| Substance                   | Source                                           | Uses                                                                                                                                                                | Side Effects                                                                                                                    |
|-----------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Aloe Vera                   | Aloe vera                                        | Used topically for wounds and burns. Reduces burning, itching, and scarring in radiation dermatitis. Useful in psoriasis and seborrheic dermatitis                  | Allergic contact dermatitis. Can lead to hypoglycemia if ingested orally by diabetics on oral hypoglycemic drugs                |
| Arnica                      | Arnica montana (contains sesquiterpene lactones) | Used for treatment of myalgia, arthralgia, bruises, insect bites, furuncles, acne, gingivitis, hemorrhoids, seborrheic dermatitis, and psoriasis                    | Allergic contact dermatitis; toxic if ingested                                                                                  |
| Bearberry                   | Arctostaphylos uva-ursi                          | Used for melasma, postinflammatory hyperpigmentation, suppressing UV-induced tanning                                                                                | If ingested, can cause nausea, vomiting, green urine, and tinnitus                                                              |
| Capsaicin                   | Capsicum                                         | Mixture of vanillyl amides of isodecenoic acid and works by depleting substance P. Is used for multiple neurologically mediated pruritic and neuropathic disorders. | Temporary burning                                                                                                               |
| Chamomile                   | Matricaria recutita, Chamomilla recutita         | Used for dermatitis                                                                                                                                                 | Theoretical risk of increased bleeding, contact dermatitis, anaphylaxis                                                         |
| Chitin                      | Insect and crustacean shell component            | Used for treatment of hyperpigmentation                                                                                                                             |                                                                                                                                 |
| Chrysanthemums              | Asteraceae (Compositae) family                   | Active components include pyrethrins which are used for scabies treatment                                                                                           | Allergic contact dermatitis, photosensitivity                                                                                   |
| Escharotics                 | Zinc chloride, bloodroot, goldenseal             | Historically used topically to treat skin cancers                                                                                                                   | Necrotic crusts, pain, scarring                                                                                                 |
| Evening Primrose Oil        | Oenothera biennis                                | Contacts linolenic acid and gamma-linolenic acid and is used for atopic dermatitis and pruritus                                                                     | None topically; may cause nausea, diarrhea, headache, thrombosis and immunosuppression with prolonged use if taken systemically |
| Feverfew                    | Tanacetum (Chrysanthemum)                        | Anti-inflammatory                                                                                                                                                   | Contraindicated during pregnancy                                                                                                |
| Garlic                      | Allium sativum                                   | Used topically for verrucae, tinea pedis and has antibacterial, antiviral, and antifungal properties                                                                | Contact dermatitis topically; anticoagulation systemically                                                                      |
| Ginkgo Biloba               | Ginkgo biloba                                    | Used for photoaging and vitiligo topically                                                                                                                          | Can decrease clearance of MAO inhibitors and SSRIs if used systemically                                                         |
| Ginseng                     | Panax ginseng, Panax quinquefolius               | Used for anti-aging topically                                                                                                                                       | Headache, insomnia, GI upset, and hypoglycemia if used systemically                                                             |
| Honey                       |                                                  | Enhances healing of first-degree and superficial second-degree burns. May be useful for acute wounds, post-op wounds, and pressure ulcers                           | Contact dermatitis                                                                                                              |
| Horse Chestnut Seed Extract | Aesculus hippocastanum                           | Used topically for treatment of varicose veins, phlebitis, and hemorrhoids                                                                                          | Irritant contact dermatitis; oral use can cause interactions with oral hypoglycemics, insulin, anticoagulants, aspirin, NSAIDs  |
| Licorice Root               | Glycyrrhiza                                      | Contains antioxidants used for its anti-inflammatory properties in rosacea and eczema. Also affective for melasma.                                                  | Hypertension, edema, congestive heart failure, hypokalemia (syndrome of mineralcorticoid excess)                                |



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| Marigold                      | Calendula               | Used as antiseptic for diaper dermatitis. Used for anti-inflammatory properties for wounds, ulcers, burns, HSV, eczema | Contact dermatitis                                                                      |
| Olive Oil                     | Olea                    | Used for hydration, wound healing, and to stimulate blood flow. If applied after UVB exposure, decreases DNA damage.   | None                                                                                    |
| Pansy Flower                  | Viola tricolor          | Contains alicyclic acid and is used for seborrheic dermatitis in infants.                                              | Theoretical risk of salicylate toxicity                                                 |
| Paper Mulberry                | Broussonetia papyrifera | Root extract inhibits tyrosinase and is used for melasma                                                               | Unknown                                                                                 |
| Propolis                      |                         | Resinous substance contains flavonoids and is used for aphthous ulcers and HSV.                                        | Hypersensitivity reactions. Contraindicated if allergic to honey or other bee products. |
| Resveratrol-containing plants | Resveratrol             | Grapes and other berries used topically to decrease UVB-induced damage                                                 | Inhibits cytochrome P450. Slows wound healing and inhibits platelet aggregation.        |
| Rosemary                      | Rosmarinus officinalis  | Used to prevent baldness and treat toothaches                                                                          | Contraindicated during pregnancy                                                        |
| Silymarin (milk thistle)      | Silybum marianum        | Used topically for anti-aging                                                                                          | Contact dermatitis; part of Compositae family                                           |
| Soy                           | Glycine                 | Used to treat hyperpigmentation, reducing unwanted body hair, reducing photodamage                                     | Has estrogenic effects and therefore carries a theoretical risk for breast cancer       |
| St. John's Wort               | Hypericum perforatum    | Used topically for acne, wounds, insect bites                                                                          | Induces cytochrome p450. Can cause photosensitivity.                                    |
| Turmeric                      | Curcuma longa           | Used to treat wounds, ulcers, tinea, and pruritis                                                                      | None                                                                                    |
| Vitamin C                     | Ascorbic Acid           | Used for photoprotection, photoaging, melasma, acne. Promotes collagen synthesis                                       | Stinging, erythema, xerosis                                                             |
| Vitamin E                     | Tocopherol              | Antioxidant used for atopic dermatitis and anti-aging                                                                  | May inhibit clotting                                                                    |
| Witch Hazel                   | Hamamelis virginiana    | Used for acne, eczema, oral ulcers, bruises. Acts as a vasoconstrictor and antioxidant.                                | None                                                                                    |

### Works Cited:

1. Bologna JL, Jorizzo JL, Schaffer JV, editors. Bologna Textbook of Dermatology. 3rd ed. Spain: Mosby Elsevier publishing; 2012: chapter 133.
2. Wolverton SE. Comprehensive Dermatologic Drug Therapy. 3rd ed. China: Mosby Elsevier publishing; 2013: chapter 55.