

Integumentary Herbs

1. *Aesculus hippocastanum*
2. *Calendula officinalis*
3. *Collinsonia canadensis*
4. *Euphrasia officinalis*
5. *Hamamelis virginiana*
6. *Salvia officinalis*
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8. *Symphytum officinale*
9. *Trifolium pratense*
10. *Vaccinium myrtillus*

Aesculus hippocastanum		
Common name(s)	Horse chestnut	
Etymology	Hippos (Greek) - means horse Castanea (Latin) - town of Castania famous for chestnut trees	
Other name(s)	C. vesta = Sweet chestnut (edible chestnuts that are usually not used medicinally) ³⁷	
Family	Hippocastanaceae	
Habitat	Native from Persian to Northern India into Italy and Greece and has recently been naturalized to North America ¹⁵	
Description	<ul style="list-style-type: none"> • Tree can grow to over 20 m • Contains 7 obovate-lanceolate leaflets per leaf, coarsely serrated • White to pinkish flowers on a terminal raceme, 15-30 cm, April to July • After the flowers have bloomed, it produces a nut in a prickly thick capsule with 2 dark seeds, 2-3 cm that matures in autumn • Rough, gray bark¹⁵ 	
Part used	Bark or outer seed coat (a.k.a. testa) ¹⁵	
Constituents	<ul style="list-style-type: none"> • Glycoside lactones (aesculin - contains flavones, tannic acids, fatty acids); 12 triterpene glycosides • Saponins (aescin = escin) 	
Action	<ul style="list-style-type: none"> • Astringent • Vasoconstrictive • Expectorant (weak action) 	
Historical uses	Hemorrhoids due to dysentery/diarrhea.	
Indications	<p><u>Internal:</u></p> <ul style="list-style-type: none"> • Vascular engorgement: Leads to dull aching pain, throbbing sensation in veins (not arteries); general feeling of fullness & malaise • Chronic venous insufficiency (CVI): Varicose veins (these people will tell you their legs ache and/or are very tired) <ul style="list-style-type: none"> ○ A. hippocastanum can be found in a cream (for topical application) in Europe but traditional use is oral ○ Could also use a poultice or compress but most commonly used in conjunction with oral administration ○ Vascular congestion (hemorrhoids; class II or III) in the rectum: Large, purple, don't bleed, sense of fullness in rectum (patient feels like they have to have a bowel movement); hemorrhoids can also result from forceful diarrhea/dysentery • Vascular wall fragility: Leading to edema or exudate; might see swelling in feet or extremities • Visceral neuralgia • Edema of the urethral mucosa (varicosity of urethra) • Hepatic aching (aching pains over the liver) <p><u>External:</u></p> <ul style="list-style-type: none"> • Ointment, gel or oil: Apply morning and evening to varicose veins or hemorrhoids; also useful externally for painful night leg cramps 	
Posology	<ul style="list-style-type: none"> • ϕ up to 20 gtt tid • Acute: 5-15 gtt in water and take every 1-3 hours • FE up to 20 gtt • Europe: Standardized to aescin – 30-150 mg of aescin (escin) per day 	

Aesculus hippocastanum	
Pharmacology	<ul style="list-style-type: none"> • Aescin: Prevents alterations in vein wall, and inhibits adherence of polymorphonucleocytes (PMNs) to the wall of the vein due to blood stasis • Varicose veins: ↓ capillary permeability by working against the lysosomal enzymes which are usually increased in patients with varicose veins. • Chronic venous insufficiency: Reduces leg pain, itching, fatigue and sense of tension; compared to compression therapy (support hose/elastic stockings) - equal in effectiveness, although combined is more effective; used with pregnant women in Europe <ul style="list-style-type: none"> ○ Studies show reduced leg volume and leg circumference, reduced capillary infiltration/permeability up to 22% ○ Causes adrenal release of glucocorticoids that reduces edema • Europe: Use IV for post-operative tissue swelling – especially concussions (and other edema associated with trauma) – not available in N. America • Reduces lymphedema post-radical mastectomy within a few days to two weeks of use • Reduces brain edema in humans after trauma (IV) • Gel available in Europe: 2% Aescin gel used for hematomas and bruises (reduces touch sensation of pain, swelling)
Toxicity	<ul style="list-style-type: none"> • Fairly safe long term however one case of liver damage has been reported following administration of an IV extract (IV is currently only available in Europe) • Aesculin: Mucous irritant, ↑ anti-thrombin activity → ↑ bleeding time, nerve stimulation • Toxic/Fatal: A few nuts can cause severe symptoms and have been reported to be fatal to children. Seed coat is neutralized by roasting. <ul style="list-style-type: none"> ○ A couple of children died following administration of A. hippocastanum but they also had concussions so cause of death is not clear • OD: Nausea, vomiting/esis, diarrhea, vertigo, incoordination, paralysis, increased core temperature (fever), visual changes (strabismus & amblyopia), opisthotonus (rigid supine arch; uncommon), stupor, elevated state, coma, death from respiratory failure/paralysis, possible elation⁸ • Tx: Charcoal, emesis, gastrointestinal lavage, monitor fluids & electrolytes, oxygen • Contact dermatitis from contact with seed or husk of seed (Tx: Flush with water and drink lots of water)⁸
TCM	<p>Name: So-Lo-Tzu (A. wilsonii, A. chinensis - both spp. have same common name)</p> <p>Organ(s): SP, LU</p> <p>Energetics: Sweet, warming</p> <p>Action: Regulates Qi and aids in moving things in the middle warmer</p> <p>Applications: Kill parasites, swelling in chest or stomach, dysentery²⁰</p> <p>Pharmacology: Anti-edema properties (600x better than rutin which is the most common treatment for vascular fragility) - reduces capillary permeability and ↑ tone of blood vessel walls</p>
Homeopathy	<p>Aesculus:</p> <ul style="list-style-type: none"> • Right SI joint pain (good 1st aid remedy): Sense of lameness & stiffness across back and SI joint, problems/weakness in sacrum and hip, < walking & stooping, eating, moving the bowels, standing; > in cool areas <ul style="list-style-type: none"> ○ <i>Helodrilus</i> (earthworm) is another common remedy for back pain • Chills at 16:00 and fever at 19:00 – 24:00 hours, profuse sweat with fever • Throbbing at the symphysis pubis: Caused by UTI, pregnancy, varicosities of the uterus or vaginal wall • Hemorrhoids in rectum: Feels like it (rectum) is full of sticks; burning sensation in anus that sends chills up and down the back • Distension of pharyngeal veins; alcoholic esophageal varices • Metallic taste in mouth • Sneezing, corhyza • Enlarged blood vessels on surface and back of eyes (could also use <i>Camellia sinensis</i>)

Aesculus hippocastanum	
	<ul style="list-style-type: none"> • Dull confused headache (where they can't think clearly, as from cold), from occiput to frontal lobe area; headache leads to mental confusion, > after bowel movement • < am on waking, motion, eating, moving the bowels, standing, afternoon • > in cool areas⁴
Combinations	Patient with severe venous stasis with leg ulcers: Aesculus topically and internally + Calendula officinalis, Symphytum officinale with hydrotherapy
King's Specific Indications and Uses	Visceral neuralgia, due to congestion; soreness of the whole body, with vascular fullness, throbbing, and general malaise; throbbing, fullness, and aching in the hepatic region; rectal uneasiness with burning or aching pain; sense of constriction, with itching; large, purple pile-tumors; uneasy sensations and reflex disturbances depending upon hemorrhoids or rectal vascular engorgement. ¹⁵

Calendula officinalis	
Common name(s)	Marigold, Calendula
Etymology	Calendae (Latin) - first day of the month, day taxes and interest payment is due
Other name(s)	Often incorrectly interchanged with Tagetes erecta and/or T. patula (African and French Marigolds respectively) ¹⁵
Family	Asteraceae
Habitat	<ul style="list-style-type: none"> Originally along the north, east and southeast Mediterranean ocean coast but now naturalized in gardens around the world⁹
Description	<ul style="list-style-type: none"> Annual 30-40 cm, hairy, bright yellow-orange floral disc (2-4 cm) Green calyx, numerous claw shaped seeds¹⁵
Part used	<ul style="list-style-type: none"> Flower when fully opened, picked soon after opening (40% alcohol)^{9 15} Whole plant may also be used and squeezed into a succus
Constituents	<ul style="list-style-type: none"> Flavonoids (rutin, rutinoid, narcissin, isoquercetin, neohesperoside) Terpenoids (lupeol, taraxerol, taraxasterol, γ-taraxasterol, faradiol, campesterol) Carotenoid pigments (beta-carotene, lycopene, violaxanthin (xanthines)) Bitters resins (calendulin, calendin, loilliolide); soluble in ethanol, acetic acid, not precipitated by tannins, dissolves in hot water, turns to a jelly on cooling Polysaccharides (arabinogalactans, rhamnoarabinogalactans)^{9 15 41, CCNM-Wampole} Saponins
Action	<ul style="list-style-type: none"> Vulnerary³⁷ Anti-septic³⁷
Historical uses	Herb of choice in WW1.
Indications	<p>Internal:</p> <ul style="list-style-type: none"> Gastric ulcerations, indigestion Hepatic congestion <p>External/Topical:</p> <ul style="list-style-type: none"> Gargle for gingivitis, stomatitis, oral ulcers Skin traumas: Cuts, scrapes, scalds, burns, acne, perineal lacerations during delivery Skin disease: Ulcer, abscess, vaginitis, cervicitis, cervical erosion, diaper rash (usually candida related) Skin conditions: Psoriasis, eczema, pruritis In nostril for irritated nasal mucosa Gonococcal leucorrhea (as a douche or rinse): Irrigate and infuse C. officinalis into the bladder via catheterization Conjunctivitis (pinkeye): Eyewash, poultice, compress of fresh flowers Suppurative conditions with a lot of purulent discharge Varicose veins
Posology	<p>ϕ 30-60 gtt tid</p> <p>FE 10-40 gtt</p> <p>Infusion: 1-4 g flower (fresh or dried)/240 mL water, pour boiled water over and let steep covered for 10 minutes</p> <p>Poultice or compress from fresh plant/flowers</p> <p>Succus (juice in 10% alcohol): Good for wounds (lower alcohol)</p> <p>Ointment: 2-5 g plant/100 g ointment</p>
Pharmacology	<ul style="list-style-type: none"> Terpenoids, Volatile/Essential Oil's and Flavonoids: Anti-inflammatory and anti-

Calendula officinalis	
	<p>oxidant effects (mechanism unknown)</p> <ul style="list-style-type: none"> • <u>Glycosides</u>: Inhibit lipoxigenase activity (therefore anti-oxidant) • <u>Polysaccharides</u>: Immunostimulant • Anti-viral and anti-bacterial effects^{CCNM-Wampole} • Animal studies: Reduces edema and inflammation and increases regeneration & epithelialization of animals with surgical wounds • Mice Erlich/abdominal tumors: Inhibited transplantation success in mice & reduced edema & ascites (a side effect of this tumor) <ul style="list-style-type: none"> ◦ Clinically compared to indomethacin (NSAID): Equally effective anti-inflammatory action (without gastrointestinal side effects)
Toxicity	<ul style="list-style-type: none"> • Fairly non-toxic but one reported case of anaphylaxis • Sx: Irritated skin, red, burning <ul style="list-style-type: none"> ◦ 35 yo female - cervical dysplasia - can substitute Hamamelis virginiana in this case ◦ 75 yo male after scratch to arm • Tx: Rinse with water and cease use
Cautions	Caution with individuals that are allergic to other plants in the Asteraceae family
TCM	<p>Organ(s): LV, HT, LU⁴⁰</p> <p>Energetics: Spicy, bitter, neutral⁴⁰</p>
Homeopathy	<p>Calendulum:</p> <ul style="list-style-type: none"> • Personality: Anxious, chilly & fretful, occipital frontal headache with itchy scalp • Inflammation of sclera • Herpetic eruptions (lower lip vesicles) • Suppurative injuries (can also use to prevent infections from injuries); swollen and suppurative glands • Diminished appetite but when they eat, they become hungry • Heartburn, distension, umbilical boring pains; stool is often coated with mucous, urine white and burning • Drawing pressure on chest, rheumatism in back • Raw wounds, wounds with sticking/stinging pains, fever, oozing pus, redness, irritation → makes them restless at night with difficulty sleeping, varicose veins, stinging pains • Cataract surgery: Infection with stitches – clears up rapidly; corneal transplants • Irritation of tendons & periosteum (Ruta, Rhus-t, Anac) • < cold and damp cold
Combinations	<p>Oral ulcers: Commifora myrrh</p> <p>Varicose veins: Hamamelis virginiana or Aesculus hippocastanum</p> <p>Diaper fungal infection, irritated (nasal) mucosa, gonococcal leucorrhea: 1 part C. officinalis, 4 parts sterile water to clean wound; soak dressing, apply to area and change often</p>
King's Specific Indications and Uses	<p>Locally, to wounds and injuries to prevent suppuration and promote rapid healing. Internally, to aid local action, and in chronic suppuration., capillary engorgement, varicose veins, old ulcers, splenic and hepatic congestion.¹⁵</p>

Collinsonia canadensis		
Common name(s)	Stone root, Horse balm	
Family	Lamiaceae (Labiatae)	
Habitat	Grows in moist forests of Eastern North America	
Description	<ul style="list-style-type: none">• Square stem• Herb to 0.5 m• Summer flowers• Root - 10 cm, with short branches	
Part used	Root (40% alcohol)	
Constituents	<ul style="list-style-type: none">• <u>Volatile oils</u> (caryophyllene, germacrene D, limonene, α and β-pinene)<ul style="list-style-type: none">◦ The volatile oils have vasodilatory, warming, and anti-microbial effects◦ The volatile oils are also released into the air giving the plant its aroma• <u>Organic acids</u> (caffeic, rosmarinic)• Mucilage• Resins• Tannin• Saponins	
Action	<ul style="list-style-type: none">• Mucous astringent• Stomachic• Circulatory tonic	
Indications	<p>Internal:</p> <ul style="list-style-type: none">• Sense of constriction in larynx, anus, sense of weight (with or without heat), venous engorgement (a.k.a. hemorrhoids)<ul style="list-style-type: none">◦ Hemorrhoids from constipation; as if foreign body is lodged in the rectal vault - very painful (20-30 gtt q2-3 hr)◦ Spasms & contractions in rectum & peritoneum◦ Hemorrhoids are bluish (veins are blue)• Chronic/Acute laryngitis, pharyngitis: Larynx walls are relaxed with dark discoloration of the pharyngeal wall, feeble capillary circulations; clergyman's throat (from overuse of voice)• Chronic bronchitis, pharyngitis, laryngitis, chronic phthisis with irritating cough• Follicular tonsillitis: Pus exuding from the folds (pus can be any color and there is often a foul halitosis)• Varicosities of the legs; varicosities of vaginal wall and extremities (commonly during pregnancy)• Heart tonic: Heart affected by chronic fevers (i.e. rheumatic fevers, rheumatic inflammation), overstrain – strengthens heart and improves circulation• Stomachic for feeble circulation, poor muscle tone, gastritis and catarrh: Improves appetite, digestion & assimilation <p>External:</p> <ul style="list-style-type: none">• Sitz bath for piles (hemorrhoids)• Injected into rectum as retention enema/douche for piles (for 5 minutes)• Green leaves applied to poison ivy, poison oak, vesicular dermatitis• Injected into vagina for vaginal varicosities	
Posology	<p>ϕ 30-60 gtt tid FE up to 30 gtt tid Decoction from root: 120-240 ml/day water with 4 g herb tid</p>	
Toxicity	<ul style="list-style-type: none">• Generally a safe herb• OD (excess amounts): Gastrointestinal irritation, colic, painful micturation, nausea, vertigo	
Contraindications	Pregnancy, especially in the 3 rd trimester	
TCM	<p>Organ(s): LV, PC, LI, LU Energetics: Spicy, sour, warming</p>	

Collinsonia canadensis	
Homeopathy	<p><u>Coll:</u></p> <ul style="list-style-type: none"> • Gloomy, irresolute type of person • Chronic nasal, gastrointestinal, and pharyngeal catarrh • Obstinate constipation with protruding hemorrhoids (stage 3) • Itching with hemorrhoids (feel like sharp sticks in the rectum; usually associated with constipation; could also have alternating constipation and diarrhea) • Anal itching • Pelvic congestion and varicosities - especially late in pregnancy • Cough of clergyman's voice (voice overuse), larynx pain • Swelling of the labia and clitoris, pruritis vulva, varicocoeles • Palpitations with shortness of breath • Feels like limbs are enlarged and swollen
Combinations	<ul style="list-style-type: none"> • Hemorrhoids: Hamamelis hippocastanum • Varicosities of the legs, varicosities of vaginal wall and extremities: Hamamelis hippocastanum (orally or douche) • Stomachic for gastritis and catarrh, improves appetite, digestion and assimilation: Hydrastis canadensis • Sitz bath for piles: Hamamelis hippocastanum
King's Specific Indications and Uses	<p>Prof. Scudder points out as indications for this drug, "a sense of constriction, with irritation in throat, larynx, or anus; a sense of constriction with tickling in throat, with cough arising from use of the voice; a sensation as if a foreign body were lodged in the rectum, with contraction of sphincter, and contracted and painful perineum." Sticking pain in the larynx, heart, or bladder; contracted abdomen; vesical tenesmus; minister's sore throat.¹⁵</p>

Euphrasia officinalis		
Common name(s)	Eyebright	Picture here
Other name(s)	Substitutes include: E. montana, E. rostkaviana, E. stricta ⁴¹	
Family	Scrophulariaceae	
Habitat	<ul style="list-style-type: none"> UK, Europe; naturalized to Asia, North America Parasitic on grass roots; from plains to subalpine^{15 41} 	
Description	<ul style="list-style-type: none"> Annual Square stem, to 30 cm Covered in fine down Axillary flowers white with yellow and purple, July¹⁵ 	
Part used	Leaf is preferred but the whole plant can be used when flowering (45% alcohol) ^{9 15}	
Constituents	<ul style="list-style-type: none"> Iridoid glycosides (acubin) Volatile oil (caffeic acid) Mannit Sugar Tannins Bitter^{9 15} 	
Action	<ul style="list-style-type: none"> Mucosal constrictor Vasoconstrictor³⁷ 	
Historical uses	Ecclectic uses: Herpes iritis (corneal ulceration which can lead to blindness)	
Indications	<p>Internal:</p> <ul style="list-style-type: none"> Ophthalmias: Catarrhal with redness, swelling and visual disturbances Acute inflammations: Conjunctivitis, blepharitis, inflammation of blood vessels Profuse lacrimal discharge with pus or water mucus Discharges from eye and nose are acrid with heat and pain in frontal sinuses Eye trauma (bruise) Eye fatigue Risk of corneal ulcer (herpes iritis) Fluent coryza's: Profuse watery discharge, hoarseness, earache, cough, headache Bronchitis⁹ Gastric catarrh: 1 cup of infusion on empty stomach on rising and at bed time <p>External:</p> <ul style="list-style-type: none"> Eye conditions with fluent coryza; catarrhal ophthalmia with lots of discharge Hordeolum's (Stye's) Gargle for throat & oral irritations; use decoction for inflammations of oral and throat mucosa^{15 37 41} 	
Posology	<p>ϕ 30- 90 gtt; infants 5 gtt in 60-90 ml H₂O, 1 tsp q 15 min</p> <p>FE 5-60 gtt</p> <p>Powder 5-30 grains</p> <p>Eyewash (decoction): 3 g herb(leaf)/100mL water, boil 2-5 minutes (1 tsp herb in 500 ml water, boil 10 min), steep 10 minutes, put in jar with very little air, refrigerate for up to 2 days¹⁵</p>	
Pharmacology	<ul style="list-style-type: none"> Caffeic acid: Bacteriostatic Iridoid glycosides: Purgative in high doses Tannins: Astringent properties There is controversial research on its effectiveness with cataracts (internal and/or external use); Acetyl-O-carnosine can also be used for cataracts topically because they permeate through the cornea into the intra-ocular space acting as an anti-oxidant and causing tissue regeneration 	

Euphrasia officinalis	
Toxicity	<ul style="list-style-type: none"> • Very safe • OD (one case): Mental confusion, severe headache, lachrimation, sneezing, nausea, insomnia, polyuria, sweating
TCM	Organ(s): LU, LI, SP Energetics: Acrid, bitter, cooling
Homeopathy	Euph: <ul style="list-style-type: none"> • Irritable, indolent and disinclined to speak • Headache and head feels very heavy, have to lie down but headache is < lying • Sticking pain in cornea (usually right); cornea feels covered in mucus; lachrymation, eye is sensitive to light and exposure to light causes pain; eye discharge is acrid and burning • Nasal discharge is watery (fluent corrhyza) • Hunger without appetite, heartburn, nausea, abdominal gripping (pain) • Hemorrhoids with diarrhea tid; frequent nocturia • Larynx irritation causes cough and sternal tension, profuse mucous, cough morning to evening, not night; ophthalmia, very wet cough, coryza or cough post-measles <ul style="list-style-type: none"> ◦ Nose, corrhyza seasonal OR Nose, corrhyza autumnal (typical presentation of hayfever) • Yawns in open air, wakes in fright from dreams, sweat in sleep^{Allen} • > left alone • DDX with Allium cepa (bland discharge for eye and nasal symptoms; reverse nasal and eye discharges)
Combinations	<ul style="list-style-type: none"> • Bronchitis: "British Herbal tobacco" (with Tussilago farfara - 1:1) • Combines with Matricaria chamomilla as a compress over eye for eye conditions with fluent coryza (<10% alcohol)
King's Specific Indications and Uses	Acute catarrhal diseases of the eyes, nose, and ears; fluent coryza with copious discharge of watery mucus. "Secretion of acrid mucus from eyes and nose with heat and pain in frontal sinus". ¹⁵

Hamamelis virginiana		
Common name(s)	Witch hazel	
Family	Hamamelidaceae	
Habitat	Eastern North America ¹⁵	
Description	<ul style="list-style-type: none"> • Shrub, 3-4 cm tall • Multiple trunks • Damp soil • Yellow flowers with four petals with a curl • Blooms September to November¹⁵ 	
Part used	<ul style="list-style-type: none"> • Bark preferred (40% alcohol) • Leaf can also be used in water or alcohol^{9 15} • Shoots are diving rod for water - witching/dowsing 	
Constituents	<ul style="list-style-type: none"> • Tannins (hamamelitannin - 10-12%) • Dextrose • Wax (phytosterin)¹⁵ • Flavonoids • Choline⁴⁰ • Volatile oils (safrole) 	
Action	<ul style="list-style-type: none"> • Astringent • Anti-inflammatory³⁷ • Hemostatic 	
Historical uses	<p>Ecclectic use: Post partum uterine hemorrhage - 1 tsp q 10min until flow has stopped</p> <p>Historical use: Soak a towel and give to teething infants to chew on (Syzygium aromaticum oil is another option for its anodyne effect)</p>	
Indications	<p>Internal:</p> <ul style="list-style-type: none"> • Hemorrhoids • Passive hemorrhage (non traumatic): Hematemesis, hemoptysis • Phthisis • Severe diarrhea/dysentery with lots of mucous & pale complexion, relaxed (boggy) tissue • Varicose veins: Reddish color behind or underneath with relaxed feel to veins • Enlarged cervix: Mucousy leukorrhea or discharge where there is prolapse or bleeding • Uterine hemorrhage: ½ tsp q 10 min, then q h once flow has stopped to prevent recurrence; irritation of the urethral mucosa; irritating cystitis; mucous urination; post partum hemorrhage • Bleeding from the eye (optic hemorrhage): Internally and as a compress for ocular hemorrhage <p>External:</p> <ul style="list-style-type: none"> • Best as a cold/cool compress • Vaginal douche for leukorrhea & hemorrhage • Hemorrhoids: Cream, sitz bath or retention enema, suppository (can add Vitamin A and E), better to use topically for hemorrhoids after each bowel movement or before bed. • Conjunctivitis • Tonsillitis, diphtheria (gargle); nasal/sinus wash • Sore throat: Red or engorged and painful • Compress over sore abdominal muscles after childbirth • Topical: Burns, cuts, scrapes, abrasions, insect bites, itchy skin, sunburn, irritated skin after shaving • Compress: Sore muscles, bruises, cold, flu 	

Hamamelis virginiana	
	<ul style="list-style-type: none"> Irritated skin: Sun, shaving, over dilated capillaries on back of hand¹⁵ Substitute for people sensitive to Calendula officinalis^{PRS} Can also use in between nursing to “toughen up nipples”; mastitis Teething: Have infant chew on towel soaked in Hamamelis to numb gums³⁷
Posology	<p>ϕ up to 60 gtt FE 10 to 60 gtt tid Decoction: 30 g in 500 mL, simmer 15-20 minutes, strain, take 1 cup tid Powdered bark: 5-60 grains/day</p>
Pharmacology	<ul style="list-style-type: none"> Safrole: Carcinogenic in high doses but only present in low doses in H. virginiana Tannins: Precipitate proteins, tighten superficial cells (useful for edematous or leaking capillaries, reduces inflammation & edema, shrinks the colloidal structures causing capillary constriction); high doses of tannins have been shown to increase risk of esophageal, nasal and liver cancers (i.e. tea drinkers but would need 15-20 cups of tea/day) Witch hazel water produced by distillation has little tannins left – they add isopropyl alcohol for the astringent property
Toxicity	<p>Sx: Red, irritated skin, contact dermatitis Tx: Rinse avoid use Prevention: 3 days on, 4 days off over 3-4 weeks³⁷</p>
TCM	<p>Organ(s): HT, ST, LI⁴⁰ Energetics: Bitter, astringing, neutral temperature⁴⁰</p>
Homeopathy	<p>Haem:</p> <ul style="list-style-type: none"> Mental: Depressed especially late in the day; forgetful Feel that they aren’t respected (Lac-c), feels forgotten Hammering headache in the temples (Nat-m), especially in the left temple Bloodshot eyes, intraocular hemorrhage (trauma), eyes feel bruised and sore Profuse epistaxis (active or passive) Painful varicosities of the throat and extremities; mucous membranes distended, bluish Hemoptysis with or without cough; hematemesis; nausea from pork Extremities feels sore, varicose veins, hard and knotty, swollen; varicose veins of extremities including hands Rectum: Hemorrhoids with a sense of weight and burning in rectum, hemorrhoids bleed profusely, raw anus, tarry stools; hematuria Varicoceles and orchitis Black metrorrhagia; dark profuse menses; ovarian congestion (cutting, tearing pain) Distention of mucous membranes < pressure, cold, humid, jarring, motion; > rest¹
Combinations	<ul style="list-style-type: none"> Rinse or sinus lavage for nasal or sinus infection/inflammation: Berberis aquifolium or Hydrastis canadensis
King’s Specific Indications and Uses	<p>Venous debility, with relaxation and fullness; pale mucous tissues (occasionally deep-red from venous engorgement, or deep-blue from venous stasis); mucous profluvia, with venous relaxation; passive hemorrhages; varicoses; capillary stasis; hemorrhoids, with full feeling; relaxed and painful sore throat; dull, aching pain in rectum, pelvis, or female organs; perineal relaxation, with fullness; muscular relaxation; muscular soreness and aching and bruised sensation, whether from cold, exposure, bruises, strains, or from physical exertion.¹⁵</p>

Salvia officinalis		
Common name(s)	Garden sage, Red sage	
Other name(s)	S. lavandulaefolia	
Family	Lamiaceae	
Habitat	<ul style="list-style-type: none"> Southern Europe Naturalized to UK, North America, gardens¹⁵ 	
Description	<ul style="list-style-type: none"> Perennial Grows to 50 cm Square stem, opposite leaves Blue flowers on terminal raceme (June-July)¹⁵ 	
Part used	Leaf (collected when flowering - 40-45% alcohol)	
Constituents	<ul style="list-style-type: none"> Volatile oils - 2.5% (Thujone - up to ½ of volatile oils, salvene, pinene, camphor, cineol, borneol) Salvene esthers (similar to volatile oils)¹⁵ Tannins⁴⁰ Beta-carotene Bitters 	
Action	<ul style="list-style-type: none"> Astringent Anti-bacterial 	
Indications	<p>Internal:</p> <ul style="list-style-type: none"> Flatulence with gastric debility: Foods sits in the stomach and does not digest Poor digestion and anorexia Very cold extremities; easily chilled – infusion helps to warm patient up Sore throats, ulceration or inflammation of the throat Peritonsillar abscess; tonsillar catarrh (gargle q 1-2 h) Stomatitis, gingivitis¹⁵ Cystitis where patient is weak and chilly⁴⁰ Post-lactation: To dry up milk production <p>External:</p> <ul style="list-style-type: none"> Gargle (q1-2h in acute stage) for laryngitis, pharyngitis, stomatitis, gingivitis, glossitis tonsillar catarrh. Fresh crushed leaf on warts q 12 h 	
Posology	<p>ϕ 10-60 gtt</p> <p>FE 10-30 gtt</p> <p>Infusion (powered leaf): up to 1-4 g/cup of 1-2 g/150 ml water</p> <p>Salvia oil: 1-3 gtt/10 mL water for a gargle</p>	
Pharmacology	<ul style="list-style-type: none"> S. plebeia & S. officinale: Anti-asthmatic effect, decrease histamine production in guinea pigs with induced asthma S. miltiorrhizae: Hypotensive effect, dilates peripheral blood vessels. S. plebeian, S. miltiorrhizae, S. officinalis: Inhibition of Staphylococcus spp., E. coli, Proteus, B. dysentery, B. Typhi S. miltiorrhizae: Inhibition of M. tuberculosis reproduction All species have fungostatic and virustatic properties ↓ Alzheimer's disease symptoms 	
Toxicity	<ul style="list-style-type: none"> OD (from Sage oil): Dry mouth, irritated mucosa, restlessness, tremor, tachycardia, convulsions <ul style="list-style-type: none"> Kidney damage from overdose of sage oil Tx: Gastrointestinal lavage 	
Contraindications	Pregnancy (potential emmenagogue): May ↓ milk production (thujone)	
Cautions	Thujone: Possible teratogenic properties and reduces milk supply	
TCM	Name: S. miltiorrhizae	

Salvia officinalis	
	<p>Organ(s): LU, ST⁴⁰ Energetics: Astringing, spicy and warming⁴⁰</p> <p>Name: Tan/Dan Shen (<i>S. miltiorrhizae</i>) - root Organ(s): HT, PC Energetics: Bitter and cold Action: Invigorates blood circulation, nourishes blood and calms the mind Applications: Angina, wind-damp joint pain, post-partum pains, abdominal pains from stagnant blood</p> <p>Name: Hsiao-Tan-Shen (<i>S. chinensis</i>) - whole plant Action: Reduces pain causing congestion Applications: Asthma from phlegm, carbuncles, scrofula</p> <p>Name: Li-Chih-Tsao (<i>S. plebeian</i>) - whole plant Action: Cools blood, removes toxins Application: Bleeding (hemoptysis, hematuria), ascites, hemorrhoids, swollen and sore throat (tonsils)</p>
Homeopathy	<p>Salv. off:</p> <ul style="list-style-type: none"> • Nervousness • Tickling cough, especially in phthisis • Cold extremities, soft weak pulse • Severe night sweats, not from infection • Galactorrhea • "Splenic anemia": Enlarged spleen, destruction of red blood cells¹
King's Specific Indications and Uses	<p>Skin soft and relaxed; extremities cold, and circulation enfeebled; colliquative sweating; urine of low specific gravity. ¹⁵</p>

Sambucus canadensis		
Common name(s)	Elderberry, Elder	
Other name(s)	S. nigra (European spp.): Grows along stream banks (found in Elderberry cleanse) S. ebulus (Dwarf spp.): Used for arthritis, found in weight reduction formulas, diuretic	
Family	Caprifoliaceae	
Habitat	<ul style="list-style-type: none"> North America Europe, Western Asia^{9 15} Along streams, in moist soils 	
Description	<ul style="list-style-type: none"> Shrub, 4 m, multiple stems, porous pith Compound bipinnate leaf (3-4 pairs) Flowers white-yellow, umbell-like, June-July Purple-black berries in September-October¹⁵ 	
Part used	Flower (>25% alcohol), berry (35-40% alcohol), inner bark ¹⁵	
Constituents	<p><u>Throughout plant</u>^{9 15}:</p> <ul style="list-style-type: none"> Volatile oils Quercitin Rutin Tannic acid Mucilage <p><u>Berry only:</u></p> <ul style="list-style-type: none"> Malic acid, citric acid Tannins Resin Ascorbic acid Cyanogenic glycoside (unripe fruit) Isoquercitin, rutin, hyperoside, lectin, hemoglutin Variety of flavonoids <p><u>Inner Bark:</u></p> <ul style="list-style-type: none"> Valerianic acid Volatile oils Fat Resins Tannins¹⁵ Glucosides Cyanogenic glycoside (sambunigrin) <p><u>Leaf:</u></p> <ul style="list-style-type: none"> Cyanogenic glycoside 	
Action	<ul style="list-style-type: none"> Flower: Diaphoretic, astringent Berry: Anti-rheumatic Bark: Purgative^{15 37 41} 	
Indications	<p><u>S. canadensis:</u></p> <p><u>Flower (Internal):</u></p> <ul style="list-style-type: none"> Nasal catarrh or obstruction, sinusitis, nasal obstruction in infants & children Skin: Edematous, full, flabby, pitting; discharge of serum from skin and mucous membranes, post scarlatina dropsy Skin ulcers: Soft with soft edges, skin deterioration, mucous (diabetic or associated varicose veins) Colds, flus and chills: Warming infusion to bring perspiration Scrofula 	

Sambucus canadensis	
	<p><u>Flower (External):</u></p> <ul style="list-style-type: none"> • Rinse skin, burn, scalds, eczema, ulcer with soft edge; rheumatism • Edematous skin with serum discharge • Can be extracted in lard, olive oils, for burns^{15 37 41} <p><u>Berry:</u></p> <ul style="list-style-type: none"> • Rheumatism, especially with sciatica and other neuralgias • Used to stimulate appetite • Made into wine, 1 oz of berry juice can be purgative <p><u>Inner bark:</u></p> <ul style="list-style-type: none"> • Cathartic effects with doses of 15-30 ml of fresh juice; emetic in large doses <p><u>S. nigra:</u></p> <p><u>Internal:</u></p> <ul style="list-style-type: none"> • Bark: Constipation, helps with anuria or poor urinary output • Flowers: Induce sweat during fevers <p><u>External:</u></p> <ul style="list-style-type: none"> • Flowers: Rinse for burns, scalds, eczema, ulcerations with soft edges, compress for rheumatism, compress for 1st and 2nd degree burns (in lard or olive oil)
Posology	<p><u>Flower:</u></p> <ul style="list-style-type: none"> • ϕ 10-60 gtt tid • FE 10-40 gtt tid • Powder: 5-30 grains • Infusion of flower: 2 tbsp of flowers into ½ liter of hot water to induce sweat or added to foot bath <p><u>Bark:</u></p> <ul style="list-style-type: none"> • Decoction: 3 tbsp ground bark in ½ liter of water → simmer to 250 mL (2-4 g flower/250 ml water) <p><u>Fruit:</u></p> <ul style="list-style-type: none"> • Juice or wine: Express juice from the berries and then add alcohol to preserve them (Europe)^{15 41}
Pharmacology	<p><u>S. nigra:</u></p> <ul style="list-style-type: none"> • Increases bronchial mucous secretions, soothing to mucous membranes, diuretic, anti-inflammatory, anti-viral <p><u>S. formosana:</u></p> <ul style="list-style-type: none"> • Hepatoprotective effects (animal studies)
Toxicity	<p><u>S. canadensis:</u></p> <ul style="list-style-type: none"> • Sambunigrin (cyanogenic glycoside): Found throughout plant (greater amounts in the bark), destroyed with heating • OD: Headache, nausea, vomiting, vertigo, gastrointestinal distress, diarrhea, tachycardia, convulsions • Tx: Gastrointestinal lavage then charcoal, IV diazepam for convulsions⁸ <p><u>S. ebulus:</u></p> <p><u>Root:</u></p> <ul style="list-style-type: none"> • Contains slightly different cyanogenic glycosides than S. canadensis • OD: Vomiting, bloody diarrhea, headache, dizziness, unconsciousness, death <p><u>Fruit:</u></p> <ul style="list-style-type: none"> • Raw plant: Nausea (no side effects when cooked; ripe fruit OK too)
TCM	<p>Name: Shuo-Cho (S. chinensis, S. formosana, S. racemosa var sieboldiana) - stem and leaf</p> <p>Organ(s): LU, LV⁴⁰</p> <p>Energetics: Acrid, slightly bitter, warm or cooling (depending on reference)^{20 40}</p> <p>Action: Dispel damp-wind and toxic cold</p> <p>Applications: Numbness of limbs, arthralgias, lumbago, various painful swellings due to dampness²⁰</p>
Homeopathy	<u>Samb:</u>

Sambucus canadensis	
	<ul style="list-style-type: none"> • Snuffles in infants and children, night-time snoring, dry mouth • Fretful images when eyes are closed, anxious (stitching pains on left side of chest); attacks of suffocation and suffocative coughing that awakes them, < midnight, blue face, profuse perspiration with thirst • See images of people around them when trying to fall asleep • Photophobia • Dropsy and nephritis: Frequent scanty urine, lots of edema, very cold and bluish extremities • Tenacious mucous, hoarseness • < cold air and cold drink • > motion, sitting¹
Combinations	<ul style="list-style-type: none"> • Used as a warming infusion to bring perspiration with colds, flues, and chills: S. canadensis + Mentha spp. + Achillea millefolium + Hyssopus officinale
King's Specific Indications and Uses	<p>In skin affections, when the tissues are full, flabby, and oedematous; epidermis separates and discharge of serum is abundant, forming crusts; indolent ulcers, with soft, oedematous borders; mucous patches, with free secretions; post-scarlatinal dropsy; low deposits in, or depravation of tissues.¹⁵</p>

Symphytum officinale		
Common name(s)	Comfrey	
Family	Boraginaceae	
Habitat	<ul style="list-style-type: none">Europe, UK but naturalized to North American gardensMoist soils¹⁵	
Description	<ul style="list-style-type: none">Perennial75 cm tall, large flesh, hairy leavesWhite-rose flowers with petals in fivesBlooms all summer long¹⁵	
Part used	<ul style="list-style-type: none">Leaf (40% alcohol)Root (90% alcohol)^{9 15}	
Constituents	<u>Leaf:</u> <ul style="list-style-type: none">MucilageTanninsAllantoinUnsaturated pyrrolizidine alkaloids/UPA's (symhytine, echimidine)Rosmarinic acid <u>Root</u> - Includes all of the constituents in the leaf plus the following: <ul style="list-style-type: none">InulinUnsaturated pyrrolizidine alkaloids (asparagine)¹⁵, >10 times the UPA's of the leafSaturated pyrrolizidine alkaloids (sarrecind, platyphylline, osmarinic acid)	
Action	<ul style="list-style-type: none">VulneraryDemulcent	
Historical uses	Heavily used in WW1 for wounds infested by maggots: Healing is due to allantoin secretion	
Indications	<u>Internal:</u> <ul style="list-style-type: none"><u>Root:</u><ul style="list-style-type: none">Dysentery or diarrhea, often bloodyUterine, bowel, kidney bleedingCough with hemoptysis or with pulmonary exudate of mucous & blood (TB, pneumonia - cough is persistent and difficult to stop)<u>Root and/or leaf:</u><ul style="list-style-type: none">Gastrointestinal ulcers especially in the stomach <u>External:</u> <ul style="list-style-type: none"><u>Fresh leaf:</u><ul style="list-style-type: none">Poultice or compress on leg ulcers (decubitus and diabetic - only when there is still healthy pink granulation tissue present; if gangrenous or necrotic tissue is present, it is necessary to use a debriding herb like Sanguinaria canadensis first)Bruises, sprains, wounds, trauma – especially with suppuration or infection, thrombophlebitisCompress for mastitis or trauma to breastTopically for fractures or osteomyelitisInfusion of leaf: Gargle for gingivitis or pharyngitis	
Posology	<u>Leaf:</u> <ul style="list-style-type: none">ϕ 5-20 gttCompress of FE or tinctureInfusion from leaf: 1 tbsp/cup, drink as soothing teaFresh leaf can be applied topically by bruising leaves or you can immerse leaves in boiling water, put in food processor, and place on skin and wrap. <u>Root:</u> <ul style="list-style-type: none">Decoction: 100 g in 250 mL water; soak gauze and apply topically until epithelium forms³⁷	
Pharmacology	<ul style="list-style-type: none">Sarrecind and platyphylline: Reduces gastrointestinal ulcerations & hypermobility;	

Symphytum officinale	
	<p>decreases spasm and irritation</p> <ul style="list-style-type: none"> • Allantoin: <ul style="list-style-type: none"> • Binds cornified layers together, moistens & prevents drying; positive effect on keratin by helping skin and keratin to hold water • Increases epithelial growth of skin (burns and ulcers) • Increases leukocyte infiltration, reduces necrotic tissue • Increases granulation tissue in wounds • Reduces inflammation in wounds (animal trauma studies) • Rosmarinic acid: Anti-inflammatory, inhibits microvascular pulmonary injury • Ankle sprain: Ointment containing 0.35 mcg/g of alkaloids qid for 8 days – 63% pain reduction, 60% reduction in edema, no side effects • Psoriasis: Increases peeling of lesions without exasperating symptoms when applied topically - 69% of people had complete disappearance of psoriasis with relapse in 12% at 6 months, 5% got worse • Leg ulcers (decubitus): 60% improvement within 2 weeks • Molluscum contagiosum: Salve improved 67% of the children (these children often also respond to removal of dairy from the diet) • Burns and scalds: 80% improvement with a reduction in pain and enhanced healing; reduces pain from UVB burns • Parasitic eczema of hands and feet (with cracks): 90% improvement after 24 weeks of use • HPV of the hand: 25% of cases had an improvement • Pyoderma or boils: > 50% improvement • Epicondylitis: Reduced inflammation when used topically as a salve
Toxicity	<ul style="list-style-type: none"> • In Canada, not approved for internal use • Symphitine, echimidine (UPA's): Limit UPA intake to 100 mcg/year, for a maximum of 4-6 weeks per year (some references suggest limiting UPA use to 10-100 µg/day) <ul style="list-style-type: none"> • Chronic exposure to UPA's: Veno-occlusive disease leading to liver damage • Fresh leaf for ulcers: Toxicity is less of a concern when used topically (if using internally, limit to 2-3 weeks) • Animals: Leaf was 0.8% of their diet or root - 1% of their diet, animals developed hepatocellular adenomas after 9-12 months (due to UPA's) • Saturated PA's are considered to be safe (Tussilago farfara, Inula helenium, Senecio spp., Echinacea purpurea) • Fatal dose: 40 mcg/kg/day for 2 years in humans (equivalent to 2 leaves/day for 2 years) • OD sx: Dull, dragging sensation on right side of abdomen; distension; hepatomegally; decreased urinary output; elevated AST, ALT, GGT
TCM	<p>Organ(s): LU, ST, KI⁴⁰</p> <p>Energetics: Bitter, sweet, cooling⁴⁰</p>
Homeopathy	<p>Symphytum:</p> <ul style="list-style-type: none"> • Eye pain post contusion, trauma to face • Fractures: Compound fractures, fracture related nerve pain, non-union fractures, pain at site of a healed fracture • Injury of cartilage, periosteum (i.e. stress fractures) • Ulcers: Gastrointestinal tract, extremities • Amputation with phantom limb pain, irritation of the leg stump
King's Specific Indications and Uses	<p>Mucilaginous agents are always beneficial in <i>scrofulous</i> and <i>anemic habits</i>. Comfrey root is very useful in <i>diarrhoea</i>, <i>dysentery</i>, <i>bronchial irritation</i>, <i>coughs</i>, <i>hemoptysis</i>, <i>other pulmonary affections</i>, <i>leucorrhoea</i>, and <i>female debility</i>; these being principally raucous affections. It is also of some value in <i>passive hemorrhages</i> from the bowels, kidneys, or womb.</p> <p>Externally, the fresh root, bruised, forms an excellent application to <i>bruises</i>, <i>ruptures</i>, <i>fresh wounds</i>, <i>sore breasts</i>, <i>ulcers</i>, <i>white swellings</i>, etc.¹⁵</p>

The Comfrey Poultice:

Whenever there is trauma causing damage to soft or hard tissues e.g. haematomas or broken bones (especially in the limbs) a comfrey poultice is indicated. It is easy to make when there is fresh comfrey to be found. Roots or leaves can be used interchangeably though it is much easier to regenerate leaves, so, when using fresh plant material we will rely principally on leaves and stems.

Supplies:

- Cut fresh leaves close to the ground to include the whole leaf and stem. Five to ten large leaves should suffice.
- 1 bed sheet cut into 10 cm wide strips cut across the width of the cloth. Roll into individual bandages.
- Large cook pot filled with boiling water
- 1 vegetable knife or food processor
- 1 medium-size mixing bowl
- Tongs
- Plastic wrap

Method:

1. Bring the water to a boil in the large pot.
2. Immerse the leaves until they turn dark green in order to burst the leaf hairs which would be irritating to the skin.
3. Using the tongs, lift the leaves out of the pot and shake off excess water.
4. Put the leaves into the food processor and liquefy. (Alternately, finely mince the leaves with a knife.)
5. Put the pulp into the mixing bowl.
6. Make patient comfortable.
7. Expose the area to be treated.
8. Thickly slather the comfrey pulp over the treatment area.
9. Cover with plastic wrap.
10. Using the bandage rolls, wrap the poultice securing it into place. When wrapping a limb, you always start distally and wrap towards the heart. Use enough bandage rolls to hold the poultice in place comfortably and securely. To avoid impeding circulation, test for correct tension of the bandage and you should be able to comfortably insert one finger underneath the bandage.
11. Leave the poultice on for one hour or overnight if treatment is given in the evening.
12. After removing the poultice, discard the pulp and launder the bandages.
13. Repeat poultice daily in conjunction with internal therapy, for duration of the healing process.

Note: If you must use dried herb:

1. Grind separately a large scoop of root and leaf.
2. Soak the root powder (2 parts water to 1 part root powder) in cold water for at least an hour.
3. Bring water to a boil and add enough leaf powder to make a paste.
4. Apply hot paste mix to the treatment area and follow above procedure.

Note (2): In general, poultices can be seen to be more generic and system specific vs. the mustard poultice for the respiratory system (COPD), the castor oil pack for the digestive system, reproductive system, and for the integration of the lymphatic, endocrine and nervous systems and the comfrey poultice for the musculoskeletal and integumentary systems.

Trifolium pretense		
Common name(s)	Red clover	
Etymology	Trifolium = 3 leaves; pratensis = of the meadow	
Family	Fabaceae	
Habitat	<ul style="list-style-type: none"> Europe but naturalized throughout the world as a hay crop 	
Description	<ul style="list-style-type: none"> Biennial Hairy Red fragrant flowers (1-2 cm) in the summer 3 rounded leaflets 20-60 cm in height 	
Part used	Flower (25-40% alcohol) ^{9 15}	
Constituents	<ul style="list-style-type: none"> Phenolic glycosides (trifoliin) Flavonoids Coumarin Resin Fat Tannin^{9 15 37} Isoflavoness (genistein, daidzein, biochanin, formononetin) 	
Action	<ul style="list-style-type: none"> Anti-spasmodic Anti-tussive Anti-tumor 	
Historical uses	Spasmodic coughs: Bronchitis, measles, laryngitis, TB, pertussis, asthma, whooping cough	
Indications	<p>Internal:</p> <ul style="list-style-type: none"> Spasmodic cough: Measles, bronchitis, laryngitis, phthisis, pertussis, whooping cough, asthma Dry cough, often explosive (internally or as a gargle) Ulcerations, especially of the tibia Cancerous and apthous ulcers Burns or ulcerations with jagged edge & poor healing; consider for someone with poor skin condition Carcinomatous cachexia^{15 37}, cancer with Larrea tridentata Acne or other skin eruptions (unhealthy skin) TB or inflammatory lung conditions Gout, arthritis⁴⁰ <p>External:</p> <ul style="list-style-type: none"> Eczema, psoriasis – itchy, sore, inflamed skin Cancerous growths Sore eyes – compress from infusion 	
Posology	<p>ϕ 30-90 gtt FE 10-60 gtt Infusion: 15 mL (1/2 ounce) q 1-2 hr (4 g/cup), 4 g/150 mL water</p>	
Pharmacology	<ul style="list-style-type: none"> The focus of research on this herb is with respect to its estrogenic activity <ul style="list-style-type: none"> Shown to affect plasma estrogen and as a result is often discouraged with estrogen positive breast cancers, however recently it has been shown to be safe for estrogen positive breast cancers Isoflavones: Improve the systemic symptoms of menopause (hot flashes, etc.) without altering plasma estrogen levels <ul style="list-style-type: none"> Promensil is a product made from the isoflavones isolated from T. pretense used to manage the side effects of menopause Biochanin A (isoflavone): Anti-carcinogenic activity in mice 	

Trifolium pretense	
	<ul style="list-style-type: none"> • Anti-bacterial activity against Mycobacterium tuberculosis • Coumarins: Anti-coagulant activity (in vitro) however, most coumarins when studied in-vivo (taken orally) have very little anti-coagulant effect (compared to in vitro)
Contraindications	<p>Coumarins: Caution with individuals with bleeding disorders, pre-surgery or pre-labor and in those already taking heparin, coumarin, warfarin, ASA, fish oil or vitamin E</p> <ul style="list-style-type: none"> • Most plant coumarins do not cause bleeding in-vivo, as they do in-vitro but it is best not to combine them with other anti-coagulant therapy. <p>Minor estrogenic activity: Don't use T. pretense with individuals with breast cancer or with endometrial proliferative conditions</p>
Cautions	<ul style="list-style-type: none"> • Bleeding disorder, heparin therapy, presurgery, prelabor (coumarins) • Anti-coagulant drugs (coumarins) • Estrogenic activity: Breast cancer, endometrial proliferative disease • Skin rash may occur from topical use.
TCM	<p>Organ(s): LU, LV, HT⁴⁰</p> <p>Energetics: Sweet, salty, cooling⁴⁰</p>
Homeopathy	<p>Trif-p:</p> <ul style="list-style-type: none"> • Confusion, loss of memory • Headache on waking, congestive headache, feels like head is full of blood • Dripping nose, hay fever, corrhyza with thin secretions and irritation • Excess saliva, congested salivary glands • Cough: Whooping cough, hoarse, choking feeling, cough brought on by chills at night • Feeling that there is congestion in the lungs, like lungs are full of blood • Stiff neck • Crusts on the scalp, tumors¹
Combinations	<ul style="list-style-type: none"> • Carcinomatous cachexia: Larrea tridentata (common name = Gobernadora) for the combined nutrient value • Hoxey formula
King's Specific Indications and Uses	<p>Some forms of whooping-cough; irritation of the laryngo-pulmonic passages; provoking spasmodic cough; cough of measles; cancerous diathesis. ¹⁵</p>

Vaccinium myrtillus		
Common name(s)	Bilberry (Europe), huckleberry (West North America), blueberry (North America), whortleberry	
Family	Ericaceae	
Habitat	<ul style="list-style-type: none">England, Europe, Asia in mountainous areasCircumpolar genus of North America (i.e. the Canadian shield) and at high elevations)	
Description	<ul style="list-style-type: none">Small shrub to 0.5 m, angular branchesProduces yellowish green leaves in the fall and red in autumn to 1 cmLeathery, smooth, waxy yellow-green flowersDeep blue-black berry < 1.0 cm	
Part used	Berry, leaf	
Constituents	<u>Leaf:</u> <ul style="list-style-type: none">FlavonesHydroquinineTannic acid <u>Berry:</u> <ul style="list-style-type: none">Ascorbic acidTannic acid, quinnic acidGlycoside (myrtillin)Anthocyanidin pigments (found mostly in the skin but also in the pulp of the berry - gives the berry its blue color; protects berry from sunlight)Other flavonoids	
Action	<ul style="list-style-type: none">HypoglycemicAnti-diarrheaLaxativeNutrientAstringent	
Indications	<u>Leaf:</u> <ul style="list-style-type: none">Acute or chronic dysentery/summer diarrhea: Due to ingestion of bad waterMouth or throat ulcers, aphthous ulcers: Gargle, take internallyCystitis with urgency and anuria or oliguria (better efficacy in alkaline pH)Diabetes mellitus (glucose in urine, hyperglycemia): As a tea tid or as a tincture <u>Fresh berry:</u> <ul style="list-style-type: none">Constipation (Europe: puree with milk & sugar)ScurvyEarly myopiaRetinopathies due to hypertension or diabetes, especially age-related (dry) macular degenerationNight vision deficiencies <u>Dried berry:</u> <ul style="list-style-type: none">Diarrhea in infants and adults: Dried or made into a decoction, Sig.: 1 tbs q few hour; also take for acute emesisStomatitis, gingivitis, chronic pharyngitis, glossitis, peridontitis, smoker’s cough: Infusion from the dried berry, gargle or consume internallyDegenerative retinal disease, atherosclerosis <u>Juice (succus of the fruit):</u> <ul style="list-style-type: none">Anti-diarrhea agent for summer diarrhea/dysentery: In Europe V. myrtillus is mixed with Quark to make the anti-diarrhoeic	

Vaccinium myrtillus	
Posology	<p>ϕ (leaf): 30 gtt tid</p> <p>Dried berry: 20-60 g/day (~1/4 cup)</p> <p>Berry: 15 g of berry - boil 3 tbs in 500 mL water for 10 minutes and then drink 1 glass/day; also beneficial to buy and freeze blueberries; can consume juice from berries</p> <p>Leaf (decoction): 1-3 tbsp/0.5 L water, boil for 10 minutes, let leaves steep for a few minutes as they are quite leathery, strain, drink tid</p> <p>Standardized extract: 25% anthocyanidin content 160-250 mg/day</p> <p>Topical: 10% decoction of berry</p>
Pharmacology	<p><u>Anthocyanidins:</u></p> <ul style="list-style-type: none"> • Enters the cell wall of bacteria and slows the growth and reproduction ∴ bacteriostatic • Reduces vascular permeability and redistributes microvascular blood flow in the back of the eye especially in the retina (anastomosis formation) and aids in the formation of interstitial fluids providing a cushion in the back of the eye <ul style="list-style-type: none"> ◦ Anthocyanidins decrease capillary leakage and permeability thereby assisting with the changes in circulation • Anti-oxidant • ↓ Diabetic retinopathy and neuropathy • Dysmenorrhea • PMS: Reduces pelvic pain (spasms), reduces nausea, beneficial for breast tenderness, and headache • Single best herb to use for dry macular degeneration with slow leakage of blood and occasionally floaters in the patients vision <ul style="list-style-type: none"> ◦ Dry macular degeneration has micro-bleeding as compared with wet macular degeneration which has frank bleeding at the back of the eye leading to blindness ◦ Wet macular degeneration: Green filter on ophthalmoscope shows bleeding, this is a medical emergency; without laser repair as soon as possible, patient may go blind • Decrease LDL oxidation (due to anthocyanidins in combination with other components) • NOTE: Prunus domestica (prunes) have greater anthocyanidin content (about 5x the amount). Dark cherries, dark grapes and blackberries also some anthocyanidin content <p><u>Hydroquinone:</u></p> <ul style="list-style-type: none"> • Anti-septic properties in the kidney but long term use may cause kidney damage <p><u>Myrtillin:</u></p> <ul style="list-style-type: none"> • Has insulin-like effect but is weaker than insulin • Shown to reduce blood glucose in de-pancreatized dogs (therefore have no insulin) • < toxic, can last for days
Toxicity	<ul style="list-style-type: none"> • Not considered toxic although long term use of the leaf may cause kidney damage due to hydroquinone content • LD50: >720 mg/kg (rat, mice over 6 months)
TCM	<p>Organ(s): LV, KI</p> <p>Energetics: Leaf (astringing, cooling), berry (sweet, slightly sour, cooling)</p>
King's Specific Indications and Uses	Not in King's