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Some Antiviral & Immunity Herbs

Elderberry and Elderflower

Part: fruit (berry), flower

Taste: Sweet (fruit), cool/acrid/bitter (flower)

Latin name: *Sambucus nigra*

Western medicine/research:

Berry: constituents include (***not an exhaustive list**); phenolic, anthocyanins, quercetins, other polyphenolic flavonoids, etc.

Flower: constituents include (***not an exhaustive list**); higher amounts of phenolic compounds than berry/leaf, hydroxycinnamic acids, glycosides of quercetin, kaempferol and isorhamnetin, etc.

Berry- "Anthocyanins, as well as other flavonoids, exhibit antioxidant, immune-stimulating, antibacterial, antiallergic and antiviral properties" (Schmitzer, Valentina, Robert Veberic, and Franci Stampar, 2012)

"Elderflower extracts displayed a higher antimicrobial efficacy and larger zones of inhibition against a broad range of bacteria" (Schmitzer, Valentina, Robert Veberic, and Franci Stampar, 2012)

"it was shown that phenolic compounds from the elderberry fruit extract bind to H1N1 virions, thus blocking their ability to infect host cells" (Schmitzer, Valentina, Robert Veberic, and Franci Stampar, 2012)

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“Supplementation with elderberry was found to substantially reduce upper respiratory symptoms. The quantitative synthesis of the effects yielded a large mean effect size. These findings present an alternative to antibiotic misuse for upper respiratory symptoms due to viral infections, and a potentially safer alternative to prescription drugs for routine cases of the common cold and influenza.” (Hawkins, Jessie, et al. 2019)

“The relief of early symptoms of common col using elderflowers fulfills the requirement of medicinal use according to the Committee on Herbal Medicinal Products.” (Salvador, Ângelo C., Armando JD Silvestre, and Sílvia M. Rocha, 2018)

“Elderflowers were also used to alleviate bronchial and pulmonary diseases, tumors and ulcers.” (Salvador, Ângelo C., Armando JD Silvestre, and Sílvia M. Rocha, 2018)

Traditional Chinese Medicine:

Elderflower Chinese name: *Shu Chin Shu*

Organs: Effecting Lung and Liver Organs

Traditional use: For Invasion of Wind-Heat (pathogens that cause fever), cooling diaphoretic (opens pores of the skin to release ‘Wind’)

Cautions: All parts of the elderberry contain cyanogenic glycosides (CGs) (if taken in excess can cause central nervous system damage), never eat raw berry (CGs are decreased through processing techniques), elderflower can cause nausea, vomiting and diarrhea if taken improperly

Preparation: concentrated extract/supplement, syrup, tea

Dosage: depends on preparation, Syrup (ideally blended in formulation)- Adult Dose: ½-1tsp 3x/day, Concentrated Extract/supplement: follow manufacturers instructions, Tea - blended with other herbs for synergistic effect: ½- 1 tsp 3 cups per day.

Echinacea spp.

Part: Root

Energy: Cooling

Taste: Bitter and pungent

Latin name: *Echinacea spp.* (*E. angustifolia*, *E. purpurea*, etc.)

Western medicine/research: constituents include (***not an exhaustive list**); phenolic compounds: caftaric acid, cichoric acid, echinacoside, cynarin, chlorogenic acid, alkyl- amides, etc.

“assess the effectiveness of Echinacea as an immunomodulator” continues to say “The data are consistent with the dosing regimen and supports their usage as the primary markers for quality Echinacea preparations.” (Matthias, Anita, et al. 2005)

“the duration of the cold (which they believed was viral in nature) was significantly less for the Echinacea group vs. the control group” (Hall, H., M. M. Fahlman, and H. J. Engels, 2007)

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“specifically strengthens the immune system by stimulating phagocytosis and T-cell formation”
(M.Tierra, L.Tierra, 2011, p.16-7)

Traditional Chinese Medicine:

Chinese name: *Zi Zhu Hua*

Organs: Effecting Lung, Stomach, and Liver Organs

Traditional use: To ‘Clear Heat and Detoxify’, considered as having broad-spectrum antibiotic properties, blood-cleansing herb, diaphoretic properties against ‘Wind-Heat’ (invasion of pathogen causing inflammation or fever)

Traditional Ayurvedic (Indian) medicine: Reduces Pitta (Fire) and Kapha (water), increases Vata (Air)

Cautions: can cause a tickling or numbing sensation in throat

Preparation: usually decoction and tea infusion, and/or tincture

Dosage: 3-9g or 10-30 drops of tincture (M.Tierra, L.Tierra, 2011, p.16-7)

Forsythia fruit

Part: seed

Energy: cool

Taste: slightly acrid and bitter

Latin name: *Forsythia suspensa*

Western medicine/research: constituents include (***not an exhaustive list**); S-suspensaside methyl ether, R-suspensaside, S-suspensaside, pinoresinol-β-d-glucoside, suspensaside A, rutin, phillyrin, forsythiaside, epipinoresinol-4'-O-glucoside, pinoresinol, epipinoresinol and phillygenin --- (Guo, Hui, et al. 2007)

*CCL5/RANTES – “key proinflammatory chemokine produced by virus-infected epithelial cells and present in respiratory secretions” (Fiona J. Culley et al. 2006)

“Forsythia suspensa - tested at concentration of 200 µg/ml possessed more than 50% **suppressing** effect on RANTES secretion by H1N1-infected A549 bronchial epithelial cells.” (Ko, Han-Chieh, Bai-Luh Wei, and Wen-Fei Chiou. 2006)

“Lignans and phenylethanoid glycosides are considered as the characteristic and active constituents of this herb, such as forsythiaside, phillyrin, rutin and phillygenin. They exhibited anti-inflammatory, antioxidant, antibacterial, anti-virus, anti-cancer and anti-allergy effects” (Wang, Zhaoyi, et al. 2018)

Traditional Chinese Medicine:

Chinese name: *Lian Qiao*

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Organs: Lung, Gallbladder, Liver, and Heart

Traditional use: commonly used for colds and flu, and high fever, UTI's, skin diseases associated with Heat, considered a broad-spectrum antibiotic (M.Tierra, L.Tierra, 2011, p.16-12), especially when combined with Honeysuckle

*Yin qiao san- Traditional Chinese Medicine formulation of Honeysuckle and Forsythia fruit

“showed that forsythoside A from *Forsythia suspensa* (Thunb.) Vahl fruit, a major herbal component in Yin qiao san, reduced the viral titers of different influenza virus subtypes in cell cultures and increased the survival rate of the mice in an in vivo influenza virus infection model.” (Law, Anna Hing-Yee, et al. 2017)

Cautions: inconclusive based on studies, not to be used in pregnancy

Preparation and dosage: granules, Chinese tea pills, tincture, 6-15g (KPS. Khalsa & M. Tierra, 2008)

Honeysuckle

Part: Flower/bud

Energy: cold

Taste: bitter and sweet

Latin name: *Lonicera japonica*

Western medicine/research: constituents include (***not an exhaustive list**); loganin, sweroside, 7-epi-vogeloside, 7-epi-loganin, secoxyloganin, caffeic acid, p-hydroxybenzoic acid, β -sitosterol, and daucosterol --- (LI, Hui-Jun, and Ping LI. 2005)

“active components including chlorogenic acid, flavonoid, caffeoylquinic acid, and iridoid glycoside can inhibit herpes simplex keratitis [30], influenza virus pneumonia [31], influenza A virus [31–33], porcine reproductive and respiratory syndrome virus [34], Newcastle disease virus [35], respiratory syncytial virus [36–38], influenza virus [39], human cytomegalovirus [40], and so on.” (Li, Yujie, et al. 2015)

“Chlorogenic acid is the main active component that confirmed as an anti-inflammatory agent. Flavonoid compounds, including galuteolin, are antioxidants that can remove free radicals of ultra oxygen ions in the human body, increase immunity” (Yang, Xingyue, et al. 2017)

Traditional Chinese Medicine:

Chinese name: *Jin Yin Hua*

Organs: Lung, Stomach, and Colon

Traditional use: “According to Chinese Pharmacopeia (2005 and 2010 Editions), both *Lonicerae japonicae flos* - are sweet in flavor and cold in nature, attributed to lung, heart, and stomach meridians. They clear heat, toxins, and certain external ailments. They are indicated for

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carbuncles and pyocutaneous disease, pharyngitis, erysipelas, heat toxins, blood dysentery, exogenous hot ailments, and febrile diseases.” (Li, Yujie, et al. 2015)

Cautions: not all species are for medicinal use and can cause gastrointestinal irritation, not for Cold/deficient types related to Spleen, potential to interact with blood thinners, discontinue use 2 weeks before surgery

Preparation and dosage: tincture, granules, Chinese tea pills, tea, food, 9-15g (KPS. Khalsa & M. Tierra, 2008)

Isatis

Part: Root, leaf

Energy: Very cold

Taste: bitter and salty

Latin name: *Isatis tinctoria*

Western medicine/research: constituents include (***not an exhaustive list**); **Root-** arginine, glutamine, proline, tyrosine, indoxyl-glucoside, sitosterol, isatin, aromatic oils; 4-pentenitrile, benzenepropanenitrile, 5-methyl hexanenitrile, 4-isothiocynato-1-butene, etc. (Verzera, A., et al. 2010)

Leaf- alkaloids, flavonoids, fatty acids, porphyrins, lignans, carotenoids, glucosinolates and cyclohexenones, isothiocyanates, etc. (Mohn, Tobias, Inken Plitzko, and Matthias Hamburger. 2009)

“extract of Isatidis Radix (RIE) showed antiviral activity against influenza virus A and B.” (Ke, Lijing, et al. 2012)

“The active component of Isatis tinctoria L. has antiviral activity by inhibiting replication of influenza virus A/H1N1 in vitro and in vivo in a dose-dependent manner.” (Li, Jin, et al. 2010)

“could enhance non-specific immunological function, humoral immunity and cellular immunity in mice” (Zhao, Yan-ling, et al. 2008)

Traditional Chinese Medicine:

Chinese name: *Ban Lan Gen*

Organs: Stomach, Liver, Heart, Lung, Colon

Traditional Use: used traditional to Clear Heat and Detoxify when combining roots and leaves, for infections and inflammations, laryngitis, mumps, sudden high fever, considered a very effective antiviral (KPS. Khalsa & M. Tierra, p.16-11, 2008)

Cautions: not to be used by weak individuals, combine with other herbs in formulations to buffer strong effects, does contain aspirin-like constituents, use caution when taking aspirin, not to be used with pregnancy or breastfeeding, short-term use advised

Preparation and dosage: powder, granules, tincture, tea, 10-30g (KPS. Khalsa & M. Tierra, p.16-11, 2008)

Astragalus

Part: Root

Energy: warming

Taste: sweet

Latin name: *Astragalus membranaceus*

Western medicine/research: constituents include (***not an exhaustive list**); polysaccharides, saponins, flavonoids, and aminophenols, formononetin, ononin, calycosin, calycosin-7-O-beta-D-glucoside, 9,10-dimethoxypterocarpan-3-O-beta-D-glucoside, adenosine, pinitol, daucosterol, beta-sitoster, saccharose (Yu, De-hong, et al. 2005)

“The results demonstrate that Echinacea, Astragalus and Glycyrrhiza herbal tinctures stimulated immune cells as quantified by CD69 expression on CD4 and CD8 T cells. This activation took place within 24 h of ingestion, and continued for at least 7 days. In addition, these three herbs had an additive effect on CD69 expression when used in combination.” (Brush, Julie, et al. 2006)

*AME- Astragalus membranaceus extract “This suggests that AME may increase the release of immune response mediator and cell migration via HPA to activate immune response in macrophages” (Qin, Qiaojing, et al. 2012)

“infiltration of inflammatory cells and collagen deposition declined in lung sections after A. membranaceus administration.” (Chen, Shih-Ming, et al. 2014)

Traditional Chinese Medicine:

Chinese name: *Huang Qi*

Organs: said to affect the Spleen and Lung

Traditional use: traditionally used as a tonic, specific for the immune system, considered an immunomodulator, tonifying to Spleen and Lung, said to lower blood pressure and be used as a diuretic ((KPS. Khalsa & M. Tierra, p.28-11, 2008)

Cautions: not for individuals with Excess Heat or Yin-deficiency Heat (False Heat), not to be used with immunosuppressant drugs or auto-immune conditions

Preparation and dosage: tincture, decoction, concentrated extract/supplement, food, 9-15g (KPS. Khalsa & M. Tierra, p. 28-11, 2008)

Table 1. Partial list of TCHM approved by the SFDA for the treatment of viral diseases.

Herbs	Botanical names	Trade names	Virus	Diseases	References
<i>Radix bupleuri</i>	<i>Bupleurum chinense, Bupleurum scorzonerifolium</i>	Xiao-chai-hu capsule, Zheng-chai-hu-yin granule	Flu	Influenza, upper respiratory infection	Zhang et al., 2007 , Zhao et al., 2007
<i>Fructus forsythiae</i>	<i>Forsythia suspensa</i>	Yin-qiao-jie-du-wan (granule, tablet), Yin-qiao-san	Flu	Acute bronchitis, pneumonia, influenza	Li et al., 2008 , Sun et al., 2006 , Xie et al., 2006 , Yang et al., 2005b
<i>Flos loniceræ; Radix scutellariae</i>	<i>Lonicera japonica; Scutellaria baicalensis</i>	Shuang-huang-lian-he-ji (granule, capsule, tablet), Yin-huang granule (tablet)	Flu, EVs, HSV, AdV, RSV, PIV	Influenza, tonsillitis, pharyngitis, upper respiratory infection, mumps, pneumonia	Chen et al., 2001 , Chen et al., 2007 , Shen et al., 2008 , Sun et al., 2009 , Wang et al., 2005 , Wu et al., 2004 , Wu et al., 2005
<i>Radix isatidis</i>	<i>Isatis tinctoria, Isatis indigotica, Baphicacanthus cusia</i>	Ban-lan-gen granule, Li-zhu (Chuan-fang) kang-bing-du granule	Flu, HSV	Influenza, acute tonsillitis, mumps	Cao et al., 2006 , Cao et al., 2007 , Cao et al., 2010 , Chen and Li, 2006 , Fang et al., 2005 , Hu and Zheng, 2003 , Sun et al., 2010
<i>Panax ginseng; Radix ophiopogonis</i>	<i>Panax ginseng; Ophiopogon japonicus</i>	Sheng-mai-yin (granule, capsule, injection)	EVs	Viral myocarditis	Zhang et al., 2005 , Zhang and Zeng, 2009

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Herbs	Botanical names	Trade names	Virus	Diseases	References
<i>Radix sophorae Flavescentis</i>	<i>Sophora flavescens</i>	Ku-shen tablet, Ku-shen-jian injection	HBV	Chronic hepatitis	Hou et al., 2005 , Shi and Wang, 2012
<i>Spica prunellae; Flos chrysanthemi Indici; Folium mori</i>	<i>Prunella vulgaris; Chrysanthemum indicum, Chrysanthemum boreale, Chrysanthemum lavandulaefolium; Morus alba</i>	Xia-sang-ju granule, Guang-yao-xing-qun-xia-sang-ju	Flu, RSV	Influenza	Huang et al., 2007 , Zhan and Dong, 2006

(Table.1 - Li, Ting, and Tao Peng. "Traditional Chinese herbal medicine as a source of molecules with antiviral activity." Antiviral research 97.1 (2013): 1-9.)

**Always consult a qualified health professional before using herbal medicine, especially in conjunction with pharmaceuticals, or book an appointment with me!

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My 'Elderberry Syrup Blend' for purchase: *Elderberry, *Elderflower, *Echinacea, *ginger, *raw sugar (vegan) or *honey, water (*organic ingredients)

Tinctures available for purchase: All antivirals/immunity herbs outlined, except Isatis leaf

Antiviral tincture for purchase: Elderberry, Elderflower, Forsythia, Isatis root, Echinacea, Honeysuckle, Astragalus blend

Text or call 604-993-0169
Email to natknowhow@gmail.com

IG: natural_knowhow
Facebook: Natural-Know How
Website: www.natural-knowhow.com

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Image: Antiviral herbs (<https://learningherbs.com/remedies-recipes/antiviral-herbs/>)

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