### Herbal Supplements: Drug Interactions and Contraindications Chart

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<th>Herbal Supplement</th>
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</table>
| **Artichoke** *(Cynara scolymus)*  
Leaf | 250mg, 2 times a day,  
standardized to contain 15% chlorogenic acid, or 2-5% cynarin | • Used to stimulate the flow of bile (choleretic)¹  
• Useful in eczema and skin disorders; a hepatoprotectant²,³  
• Adjunctive agent in hyperlipidemia⁴ | • Do not use if allergic to members of the daisy (chrysanthemum) family.  
• Do not use if bile obstruction is present.⁵ |
| **Ashwagandha** *(Withania somnifera)*  
Root | 450-900mg daily,  
standardized to contain 1.5% withanolides | • Used as an adaptogen to enhance mental and physical performance, improve learning ability, and decrease stress and fatigue⁶  
• General tonic in stressful situations, especially insomnia, overwork, nervousness, and restlessness⁷  
• Chemotherapy and radiation protection and therapeutic enhancement of these agents⁸,⁹ | • May be an abortifacient. Use with caution in pregnancy and lactation.  
• Use with caution while taking sedatives such as barbiturates (reported to increase the effects of these drugs).  
• Use with caution in individuals with hyperthyroidism; ashwagandha has been reported in an animal study to increase T4 activity and subsequently thyroid function.¹⁰  
• An animal study reported that constituents contained in ashwagandha root may alter the effects of thyroid medications, possibly altering the effects of these medications and possibly the dose(s) needed for therapy.¹¹ |
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| Astragalus (Astragalus membranaceus) Root | 250-500mg, 4 times a day, standardized to a minimum of 0.4% 4’-hydroxy-3’-methoxyisoflavone 7-sug | • Used as an adaptogen to increase stamina and energy\(^\text{12}\)  
• Adjunct support for chemotherapy and radiation\(^\text{13}\)  
• Improves resistance to disease and immune function\(^\text{14}\)  
• Used in oxygen deprivation of tissues\(^\text{15}\) | • Use with caution if currently taking immunosuppressive medications. |
| Bilberry (Vaccinium myrtillus) Berry | 80mg, 2-3 times a day, standardized to contain 25% anthocyanosides (calculated as anthocyanidins) | • Antioxidant; used in eye disorders including myopia, diminished visual acuity, dark adaptation, day and night blindness, diabetic retinopathy, cataracts\(^\text{16}\)  
• Used in cardiovascular health to help maintain capillary integrity and reduce hyperpermeability\(^\text{17}\) | • Use with caution in pregnancy and lactation.\(^\text{18}\)  
• Use with caution in individuals taking anticoagulant/antiplatelet medications. |
| Bitter Melon (Momordica charantia) Fruit | 200mg, 2-3 times a day, standardized to contain 5.1% triterpenes | • Hypoglycemic\(^\text{19,20}\)  
• Used as an antidiabetic agent and for impaired glucose tolerance (IGT); antiviral\(^\text{21}\) | • Do not use in pregnancy (emmenagogue and abortifacient).  
• May alter insulin and/or oral hypoglycemic needs in diabetic individuals due to pharmacology; monitoring of blood sugar levels is recommended.\(^\text{22}\) |
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<tr>
<td><strong>Black Cohosh</strong></td>
<td>20mg, 2 times a day, standardized to contain 1mg triterpenes (27-deoxyacteine)</td>
<td>Phytoestrogenic action; used in menopausal complaints and PMS; rheumatic complaints; mild depression(^{23,24,25,26})</td>
<td>Contraindicated in pregnancy and lactation (uterine stimulation reported).(^{27,28})</td>
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<tr>
<td><em>(Cimicifuga racemosa)</em></td>
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<td>Caution if individual is taking hormonal drugs such as estrogen or birth control pills; may alter hormonal therapy.</td>
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<td>May cause nausea, vomiting, and headache in high doses.</td>
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<td><strong>Bladderwrack</strong></td>
<td>600mg, 1-3 times a day</td>
<td>Rich source of iodine, potassium, magnesium, calcium and iron; used in hypothyroidism and fibrocystic breast disease(^{29})</td>
<td>Use with caution in individuals taking thyroid agents.</td>
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<tr>
<td><em>(Fucus vesiculosus)</em></td>
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<td>Use with caution in hyperthyroidism.</td>
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<td>Caution for individuals with kidney failure (may alter potassium levels).</td>
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<tr>
<td><strong>Boswellia</strong></td>
<td>200-400mg, 3 times a day, standardized to contain 65-75% organic acids and/or 20-25% boswellic acids</td>
<td>Anti-inflammatory(^{30,31})</td>
<td>Use with caution in individuals taking anti-inflammatory medications such as NSAIDs.</td>
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<tr>
<td><em>(Boswellia serrata)</em></td>
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<td>Used in arthritis and other inflammatory conditions such as ulcerative colitis(^{32,33})</td>
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| **Bromelain** *(Anas comosus)* Enzyme | **Digestive enzyme:** 1 tablet, 3 times a day with meals, standardized to contain at least 2000mcu/gram  
**Other uses:** 1 tablet, 3 times a day between meals (either 1 hour before meals or 2 hours after meals) | - Proteolytic agent from the pineapple plant; used as an anti-inflammatory agent in arthritis  
- Used as a digestive enzyme  
- Use with caution if taking anticoagulants.  
- Use with caution in GI ulceration.  
- Use with caution in individuals with hypertension or other cardiovascular disorders.  
|                                |                                                                        |                                                                                                                                                                                                             |                                                                                                                                                  |
| **Cat’s Claw** *(Uncaria tomentosa)* Root (bark) | 250-1000mg, 3 times a day, standardized to contain 3% alkaloids and 15% total phenols; some supplements are standardized to not less than 1.3% pentacyclic oxindole alkaloids and not more than 0.06% tetracyclic oxindole alkaloids.  
|                                                                        | - Used to improve immunity  
- Antibacterial, antifungal, and antiviral  
- Anti-inflammatory  
- Antioxidant  | - Should not be used by organ transplant patients.  
- Do not use during pregnancy.  
- Do not use in individuals on the following:  
  - IV hyper-immunoglobulin therapy;  
  - Insulin;  
  - Immunosuppressant therapy.  
- Use with caution in individuals on the following medications:  
  - Anticoagulant/antiplatelet medications (may increase the chance of bleeding due to PAF inhibition);  
  - Nonsteroidal anti-inflammatory drugs (NSAIDs) (may increase the chance of GI bleeding). |
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| **Cayenne** *(Capsicum annuum)*   | 400mg, 3 times a day, standardized to contain 0.25% or greater capsaicin content; may also be standardized to heat units, with 150,000 being average | **Topical:** Apply topically as directed by manufacturer.  
- May stimulate digestion  
- Circulatory support for cardiovascular system  
- Used topically in inflammation and pain | • Do not use with GI ulceration.  
• Use with caution in individuals taking anticoagulant/antiplatelet medications due to platelet aggregating inhibition.  
• May interfere with monoamine oxidase (MAO) inhibitors and antihypertensive therapies due to increased catecholamine secretion.  
• An animal study reported that constituents contained in cayenne may increase the effects of the theophylline and possibly the dose needed for treatment. Increased areas under plasma curves, peak plasma levels and mean residence times for the theophylline product were seen with concurrent use of cayenne. |
| *(Capsicum frutescens)* Fruit     |                                                                        |                                                                                                          |                                                                                                                          |
| **Chastetree/Vitex** *(Vitex agnus-castus)* | 200mg, 2 times a day, either 1 hour before or 2 hours after meals, standardized to at least 0.5% agnuside or 0.6% aucubin | **-** Progesterone-like action with uses in PMS, menopause, corpus luteum insufficiency, and other menstrual irregularities  
- Insufficient lactation and hyperprolactinemia | • Do not use in pregnancy due to potential uterine stimulation and emmenagogue effects  
• May alter hormonal therapy such as birth control and hormone replacement therapy (HRT) (due to potential endocrinologic effect).  
• Use with caution with dopamine agonists such as haloperidol, metoclopramide or levodopa due to pharmacology of vitex. |
<p>| <strong>Berry</strong>                         |                                                                        |                                                                                                          |                                                                                                                          |</p>
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| Coleus (Coleus forskohlii) Root | 250mg, 1-3 times a day, standardized to contain 1% forskolin per dose OR 50mg, 1-3 times a day, standardized to contain 18% forskolin | - Increases intracellular c-AMP; used in asthma, hypertension, congestive heart failure, glaucoma, allergies, eczema<sup>59,60,61</sup> | - Use with caution in hypotension.  
- Avoid in peptic ulcer disease. <sup>62</sup>  
- Use with caution in individuals taking the following (may increase the effects of these drugs):  
  - Antihypertensives;  
  - Decongestants;  
  - Antihistamines.  
- Use with caution in individuals taking anticoagulant/antiplatelet medications (due to platelet aggregating inhibition). <sup>63</sup> |
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| **Cordyceps** *(Cordyceps sinensis)* Mycelia | 1050mg, 2 times a day, standardized to contain 0.14% adenosine and 5% mannitol | • Antioxidant<sup>64</sup>  
• Supports healthy lung and kidney function<sup>65</sup>  
• Adaptogenic/tonic to support wellness, longevity, and general health<sup>66</sup>  
• Beneficial for athletes in increasing stamina and endurance<sup>67</sup>  
• Increases cellular oxygenation; useful during times of stress; reduces tiredness and fatigue; has immunomodulatory effects<sup>68</sup>  
• Adjunct support for chemotherapy and radiation<sup>69</sup>  
• Improves sexual vitality<sup>70</sup>  
• Hepatoprotective<sup>71</sup> | • Do not take if allergic to fungus.  
• Use with caution in pregnancy and lactation.  
• Use with caution in individuals taking anticoagulant and antiplatelet medications (due to platelet aggregating inhibition).<sup>72</sup>  
• Use with caution if taking monoamine oxidase (MAO) inhibitors.<sup>73</sup> |
| **Dandelion** *(Taraxacum officinale)* Root/plant | 250-500mg, 3 times a day of whole root, standardized extract OR 5-10ml, 3 times a day, of liquid extract (1:1w/v fresh plant or 1:4w/v dried plant) in water or juice | • Used for disorders of bile secretion (choleretic); appetite stimulation; dyspeptic complaints<sup>74</sup>  
• Diuretic<sup>75</sup> | • Do not use if biliary obstruction or gallstones are present.<sup>76</sup>  
• Use with caution if on diuretics, digoxin due to dandelion’s diuretic effects.<sup>77</sup> |
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| Devil’s Claw      | 100-200mg, 1-2 times a day, standardized to contain 5% harpagosides | - Anti-inflammatory<sup>78,79</sup>  
- Used in chronic osteoarthritis, gout, and other inflammatory conditions<sup>80,81</sup> | - Do not use in pregnancy due to stimulation of the uterine muscle.<sup>82</sup>  
- Use with caution in individuals on NSAIDs or other anti-inflammatory medications.  
- Do not use in GI ulceration.<sup>83</sup>  
- Use with caution if taking antiarrhythmic medications. |
| (Harpagophytum procumbens) Tuber |        |                |                                                          |
| Dong Quai          | 200mg, 2 times a day, standardized to contain 0.8-1.1% ligustilide | - Phytoestrogenic<sup>84</sup>  
- Used in female disorders including PMS, menopause, and irregular menstruation<sup>85,86</sup>  
- Blood pressure regulation; energy (especially in females); anemia and blood building properties<sup>87</sup> | - Use with caution if currently taking hormonal therapies such as birth control or hormone replacement therapy.  
- Use with caution if taking anticoagulant/antiplatelet medications.<sup>88</sup>  
- Use with caution if sunbathing or using a tanning booth while taking Dong quai; use dong quai with caution when taking prescription drugs that cause sensitivity to sunlight.<sup>89</sup> |
<p>| (Angelica sinensis) Root |        |                |                                                          |</p>
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| **Echinacea**  
(Echinacea purpurea)  
Flower, whole plant, root, succus (Echinacea angustifolia)  
Root | 500mg, 3 times a day for 1 day, then 250mg, 4 times a day, standardized to contain 4% echinacosides (angustifolia) or 4% sesquiterpene esters (purpurea) per dose  
Purpurea (freshly expressed plant juice): Use 60 drops, 3 times a day with food for 1 day, then 40 drops, 3 times a day with food for up to 10 days, standardized to contain not less than 2.4% soluble beta-1,2 D-5 fructofuranosides | - Increases non-specific immunity; used in prevention and treatment of colds, flu, minor infections, tonsillitis, sore throat; used in chronic skin complaints<sup>90,91</sup>  
- Used as an antiviral agent<sup>92</sup>  
- Used topically as an antibacterial, wound healing agent<sup>93</sup> | - Not for use in individuals with chronic immunosuppression<sup>94</sup>  
- Use with caution in individuals with kidney disorders<sup>95</sup>  
- If used for prophylaxis, cycle 3 weeks on, 1 week off<sup>96</sup> |
| **Evening Primrose**  
(Oenothera biennis)  
Seed oil | 2-8 grams daily (depending on severity of condition) standardized to contain 8% gamma-linoleic acid | - Used for omega-6 essential fatty acid supplementation  
- Used in atopic eczema, PMS, menopause, rheumatoid arthritis, diabetic neuropathy, psoriasis<sup>97,98,99</sup> | - Do not use in individuals currently on phenothiazine antipsychotics or diagnosed with schizophrenia; contraindicated in epilepsy<sup>100,101,102</sup>  
- Use with caution in individuals on the following:  
  - Anticoagulants/antiplatelets (may reduce platelet aggregation)<sup>103</sup>  
  - With seizures and/or on seizure medication (may lower seizure threshold)<sup>104,105</sup> |
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| **Feverfew** *(Tanacetum parthenium)* Leaf | 100-250mg daily, standardized to contain 250-600mcg of parthenolide | • Used in the preventative treatment of migraine headaches<sup>106</sup> | • Do not use in pregnancy due to emmenagogue effect.<sup>107</sup>  
• Do not use if the individual is allergic to the daisy (chrysanthemum) family.  
• Use with caution in individuals on anticoagulant/antiplatelet therapy.<sup>108</sup> |
| **Garcinia** *(Garcinia cambogia)* Fruit | 500-1000mg, 3 times a day on an empty stomach, either ½ hour before meals or 1 hour after eating, standardized to 50% (-)-hydroxy citric acid | • May be effective in weight reduction protocols<sup>109,110</sup>  
• May be effective in controlling sugar levels and supporting pancreas function<sup>111</sup> | Use with caution if taking hypoglycemic medications (may further lower blood sugar levels). |
| **Garlic** *(Allium sativum)* Bulb | 400mg, 2-3 times a day, equivalent to 1200mg of fresh garlic or 10mg alliin standardized to provide 4mg of Total Allicin Potential (TAP) per dose OR 600mg of aged extract, 1-3 times a day, standardized to contain 1mg/Gm S-allyl cysteine (SAC) | • May lower cholesterol and blood fats<sup>112,113</sup>  
• Mild PAF inhibitor<sup>114</sup>  
• Has antibiotic effect, especially against bacteria and fungi<sup>115,116</sup>  
• Beneficial to the immune system. | May cause GI distress in sensitive individuals.  
Use with caution in individuals on the following medications as garlic may potentiate their effects:  
- Anticoagulants;  
- Hypoglycemic agents;  
- Antihypertensives. |
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| Ginger (Zingiber officinalis) Root | 250mg, 3 times a day with food, standardized to contain 4% volatile oils or 5% total pungent compounds, most prominently 6-gingerol and 6-shogaol | • Used as an anti-emetic\textsuperscript{117,118}  
• GI distress and dyspepsia\textsuperscript{119}  
• Anti-inflammatory properties\textsuperscript{120} | • Use with caution in individuals on anticoagulants and/or antiplatelet medications (may increase chances of bleeding due to PAF inhibition).\textsuperscript{121} |
| Ginkgo (Ginkgo biloba) Leaf | 40-80mg, 3 times a day, standardized to contain 24-27% ginkgo flavone glycosides (heterosides) and 6-7% triterpene lactones | • Reported to increase peripheral blood flow; used in cerebral vascular insufficiency, peripheral vascular insufficiency, Alzheimer's Disease, impotence, tinnitus, resistant depression, memory\textsuperscript{122,123} | • Use with caution in individuals on anticoagulants (may increase chances of bleeding due to PAF inhibition).\textsuperscript{124,125,126}  
• Use with caution in individuals on monoamine oxidase (MAO) inhibitors as ginkgo may enhance the effects of these medications.\textsuperscript{127}  
• Do not use ginkgo supplements in individuals with epilepsy; ginkgo may precipitate seizures in these individuals\textsuperscript{128} |
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| **Ginseng (Panax) (Panax ginseng) Root** | 200-600mg daily, standardized to contain a minimum of 5% ginsenosides | * Enhances mental and physical performance; increases energy, decreases stress; improves immune function; adjunct support for chemotherapy and radiation<sup>129,130</sup> | • Do not use in kidney failure.  
• Do not use in pregnancy or acute infections.  
• May alter hormonal therapy.  
• Use with caution in the following: <sup>131,132,133</sup>  
  - Digoxin therapy;  
  - Anti-hypertension medications;  
  - Anticoagulant/antiplatelet therapy  
• Use with caution in individuals currently on monoamine oxidase (MAO) inhibitors, primarily phenelzine.<sup>134</sup>  
• May cause mastalgia in prolonged and high doses.<sup>135</sup>  
• May cause vaginal breakthrough bleeding.<sup>136</sup>  
• Ginseng Abuse Syndrome (GAS) may occur in prolonged and high doses (includes diarrhea, hypertension, nervousness, skin eruptions and sleeplessness).<sup>137</sup> |
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| Ginseng (Siberian), Eleuthero (Eleutherococcus senticosus) Root | 200mg, 2 times a day, standardized to contain 0.8% eleutherosides | • Adaptogen<sup>138,139</sup>  
• Beneficial in athletic performance, decreasing stress and fatigue; reported to increase immune system function<sup>140</sup> | • May alter the effects of:  
  - antihypertensive,  
  - anticoagulant/antiplatelet  
  - hypoglycemic medications.  
• Use with caution with digoxin therapy, although a contaminant in the eleuthero supplement may have been the culprit of the interaction;<sup>141</sup>  
• May increase effects  
  of hexobarbital.<sup>142</sup> |
| Golden Seal (Hydrastis canadensis) Root/rhizome | 250mg, 2-4 times a day, standardized to contain 10% alkaloids or 2.5% berberine and 1.5-5% hydrastine | • Mucous membrane tonifying; antibacterial, antifungal; used in inflammation of the mucosal membranes; treatment of gastritis, bronchitis, cystitis, infectious diarrhea<sup>143</sup> | • Contraindicated in pregnancy.  
• High doses (2-3gm) may cause hypotension.<sup>144</sup>  
• May have hypoglycemic effect. |
| Grape Seed (Vitis vinifera) Seed/skin | 25-100mg, 1-3 times a day, standardized to procyanidolic value of not less than 95 and 90% total phenols | • Antioxidant  
• Treatment of allergies, asthma; improves peripheral circulation; decreases platelet aggregation, capillary fragility; improves general circulation; inflammation<sup>145,146,147</sup> | • Use with caution in individuals on anticoagulant therapy and/or antiplatelet medications due to platelet inhibition. |
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| **Green Tea** *(Camellia sinensis)* Leaf | 500mg daily, standardized to contain 50% catechins (polyphenols), specifically (-)-epigallocatechin-3-gallate (EGCG) Caffeine-free products are available. | - Used as an antioxidant to aid in cancer prevention, cardiovascular disease[^148][^149]  
- Adjunct support for chemotherapy and radiation[^150]  
- May lower cholesterol[^151]  
- Platelet inhibiting action[^152]  
- Anticariogenic activity[^153] | - Use with caution in individuals taking anticoagulant and/or antiplatelet medications due to platelet aggregating inhibition.  
- Use with caution when taking other stimulants such as caffeine and decongestants, unless a caffeine-free product is used. |
| **Guggul** *(Commiphora mukul)* Resin | 500mg, 3 times a day, standardized to contain 5% guggulsterones | - Hypercholesterolemic agent; used in lowering blood cholesterol levels[^154][^155][^156] | - Use with caution in individuals on the following:[^157]  
  - Hypothyroid medications;  
  - Anticoagulants;  
  - Cholesterol-lowering medications.  
- Reported to interfere with diltiazem and propranolol metabolism, so caution should be used in calcium channel blocker and beta-blocker medications.[^158] |
| **Gymnema** *(Gymnema sylvestre)* Leaf | 250-500mg, 1-3 times a day, standardized to contain 25% gymnemic acids | - Regulation of blood sugar levels[^159] | - Use with caution in hyperglycemics or diabetics due of potential to increase the effects of these medications.[^160] |
| **Hawthorn** *(Crataegus oxyacantha)* Flower/leaf/berry | 250mg, 1-3 times a day, standardized to contain at least 2% vitexin-2-O-rhamnoside and/or 20% procyanidins | - Treatment of angina, hypotension/hypertension, peripheral vascular diseases, tachycardia; used as a cardio-tonic[^161][^162]  
- Antioxidant effects due to polyphenol content. | - Use with caution in individuals on the following:[^163]  
  - Antihypertensives;  
  - Digoxin;  
  - Angiotensin converting enzyme inhibitors (ACE inhibitors). |
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<td><strong>Hops</strong> <em>(Humulus lupulus)</em></td>
<td>100mg, 2 times a day as needed, standardized to contain 5.2% bitter acids and 4% flavonoids</td>
<td>• Mild sedative and hypnotic&lt;sup&gt;164,165&lt;/sup&gt;</td>
<td>• Use with caution in individuals on the following (action may be potentiated):</td>
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<tr>
<td>Strobiles</td>
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<td>- Sedatives;</td>
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<td></td>
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<td>- Anti-anxiety medications;</td>
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<td>- Hypnotics;</td>
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<td>- Antipsychotics;</td>
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<td>- Antidepressants;</td>
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<td>- Alcohol.</td>
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<td>• Use caution when driving an automobile or operating heavy machinery.</td>
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<td>• Use with caution while taking sedative medications (reported to increase sleeping time induced by pentobarbital).&lt;sup&gt;166&lt;/sup&gt;</td>
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<td><strong>Horse Chestnut</strong> <em>(Aesculus hippocastanum)</em></td>
<td>300mg, 1-2 times a day, standardized to contain 3-13% escin</td>
<td>• Varicose veins, hemorrhoids, other venous insufficiencies; deep venous thrombosis&lt;sup&gt;167,168&lt;/sup&gt;</td>
<td>• Use with caution in individuals on anticoagulants and/or antiplatelet medications (may increase chances of bleeding due to PAF inhibition).&lt;sup&gt;169,170,171&lt;/sup&gt;</td>
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<tr>
<td>Seed</td>
<td>Topically: Apply 2% escin gel, 1-2 times a day to affected area</td>
<td>• Used topically in the same conditions</td>
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<td><strong>Horsetail</strong> <em>(Equisetum arvense)</em></td>
<td>300mg, 3 times a day as needed, standardized to contain 10% silica</td>
<td>• Diuretic&lt;sup&gt;172&lt;/sup&gt;</td>
<td>• Diuretic effect may cause electrolyte disturbances and may potentiate certain pharmaceutical drugs with narrow therapeutic windows.</td>
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<tr>
<td>Shoots</td>
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<td>• High mineral content (including silicic acid); used as nutritional support in bone and connective tissue strengthening, including osteoporosis&lt;sup&gt;173&lt;/sup&gt;</td>
<td>• May deplete thiamine (vitamin B&lt;sub&gt;1&lt;/sub&gt;) from the body due to thiaminase activity.&lt;sup&gt;174&lt;/sup&gt;</td>
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| Kava Kava (Piper methysticum) Root | 100-250mg, 1-3 times a day as needed, standardized to contain 30% kavalactones<br>**Sedation:** 250-500mg at bedtime, standardized to contain 30% kavalactones | • Used in anxiety, sedation; skeletal muscle relaxation; post ischemic episodes<sup>175,176</sup> | • Do not use in liver disease or liver impairment<sup>177</sup> Has been under tough scrutiny and increased regulatory control in European countries due to hepatic effects.  
• Do not use during pregnancy<sup>178</sup>  
• Do not use in Parkinson’s Disease (has been reported to cause dopamine antagonism).<sup>179,180</sup>  
• Use with caution if taking the following:<br>- Alprazolam (may increase sedative effects);<sup>181</sup>  
- Ethanol (may increase ethanol toxicity);<sup>182</sup> (conflicting study);<sup>183</sup>  
• May cause drowsiness or sedation in higher doses.<sup>184</sup>  
• Use caution when driving an automobile or operating heavy machinery.  
• Long-term use of high doses has resulted in rash.<sup>185</sup>  
• Use with caution in individuals on the following (action may be potentiated):<br>- Sedatives;  
- Anti-anxiety medications;  
- Hypnotics;  
- Antipsychotics;  
- Antidepressants. |
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| **Licorice (Glycyrrhiza glabra)** | Root 250mg, 3 times a day, standardized to contain 20% glycyrrhizinic acid OR 15-30 drops of liquid extract, 3 times a day in juice or other beverage **DGL Licorice**: 250mg, 3 times a day chewed either 1 hour before or 2 hours after meals and at bedtime, standardized to contain no more than 2% glycyrrhizin | • Used in adrenal insufficiency<sup>186</sup>  
• Licorice extract beneficial as an expectorant and antitussive<sup>187</sup>  
• Chewable DGL products used in peptic and duodenal ulcers<sup>188,189</sup> | • Use with caution in individuals on the following (licorice may deplete potassium):  
  - Thiazide diuretics;  
  - Potassium-sparing diuretics.  
• Should recommend potassium supplementation when using licorice.  
• Do not use in hypertension, hepatic problems, renal problems, or obesity due to possible mineralocorticoid effects of licorice (glycyrrhizin content).<sup>190,191</sup> Not a problem if using DGL licorice. |
| **Olive Leaf (Olea europaea)**    | Leaf 250-500mg, 1-3 times a day, standardized to contain 15-23% oleuropein | • Antibiotic, antifungal, antiviral; also has hypoglycemic and antihypertensive activity<sup>192,193</sup> | • Do not use in individuals with gallstones due to olive’s cholangue effect.<sup>194</sup>  
• Use with caution in individuals on hypoglycemic and antihypertensive agents; may alter the need for these medications. |
<table>
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<tr>
<th>Herbal Supplement (Passiflora spp.)</th>
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| Passion Flower Whole plant        | **Anxiety**: 100mg, 2 times a day, standardized to contain 3.5% isovitexin  
**Insomnia**: 200mg at bedtime, standardized to contain 3.5% isovitexin | • Sedative agent\textsuperscript{195,196} | • Use caution when driving an automobile or operating heavy machinery.  
• Use with caution in individuals on the following:  
  - Sedatives;  
  - Antidepressants;  
  - Hypnotics;  
  - Anti-anxiety agents.  
• Reported to increase sleeping time induced by hexobarbital.\textsuperscript{197} |
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<td>Peppermint <em>Mentha piperita</em> Leaf/oil</td>
<td>1 tablet (enteric coated), 2-3 times a day, containing 0.2ml oil per tablet&lt;br&gt;The oil should contain:&lt;br&gt;• not less than 4.5% w/w and not more than 10% w/w of esters calculated as menthyl acetate;&lt;br&gt;• not less than 44% w/w of free alcohols calculated as menthol; and&lt;br&gt;• not less than 15% w/w and not more than 32% w/w ketones calculated as menthone&lt;br&gt;<strong>Infants</strong>: Use 1tsp of dried leaf per cup of boiling water. Cool before using.</td>
<td>• Used for digestive complaints as a carminative and spasmolytic&lt;sup&gt;198&lt;/sup&gt;&lt;br&gt;• Oil used in Irritable Bowel Syndrome&lt;sup&gt;199,200&lt;/sup&gt;</td>
<td>• Do not use in individuals presenting biliary tract obstruction, cholecystitis or severe liver damage.&lt;sup&gt;201&lt;/sup&gt;</td>
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| Red Clover (Trifolium pratense) Tops | 500mg daily, standardized to contain 40mg isoflavones OR 30-60 drops, 2-3 times a day of a liquid extract (1:1w/v) in juice or other beverage | • Used in the management of menopausal symptoms (contains profile of 4 phytoestrogens) | • Use with caution in individuals using birth control and hormone replacement therapy (HRT) (may alter hormonal therapy).  
• Use with caution while taking anticoagulants and/or antiplatelet medications. |
| Red Yeast Rice (Monascus purpureus) | 1200mg, 2 times a day | • Hypercholesterolemic agent; may lower triglycerides and raise HDL cholesterol | • Use with caution in individuals currently on pharmaceutical cholesterol lowering drugs.  
• Contraindicated in individuals who are hypersensitive or allergic to rice or yeast; with a history of liver disease or at risk for liver disease; with active liver disease, serious infections, organ transplantation, or recent major surgery. |
| Reishi (Ganoderma lucidum) Mushroom | 150-300mg, 3-4 times a day, standardized 4% triterpenes and 10% polysaccharides (β-1,3-glucans) | • Used for immunomodulation, fatigue, chemo- and radioprotection, antihypertensive, anticonvulsive | • Use with caution if taking anticoagulant medications.  
• Reishi may increase the activity of cefazolin (Ancef™). |
| Rhodiola, Arctic root (Rhodiola rosea) | 50-100mg, 3 times a day standardized to1% salidrosid and/or 40-50% phenylpropenoids | • Used as an “adaptogen”; used in adrenal stress to decrease cortisol production, also in cardiac stress.  
• Used as nutritional support in depression. | • Use with caution if taking adrenergic-blocking agents due to adrenergic blocking activity of rhodiola.  
• Use with caution if taking antiarrhythmic medications due to rhodiola antiarrhythmic activity. |
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<td>Saw Palmetto (Serenoa repens) Berry</td>
<td>160mg, 2 times a day, standardized to contain at least 80-90% fatty acids and sterols</td>
<td>• Used in the treatment of benign prostatic hypertrophy (BPH)(^{214,215,216})</td>
<td>• Use with caution in individuals on alpha-adrenergic blocking agents; saw palmetto has some alpha-adrenergic activity.(^{217})</td>
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</table>
| Schisandra (Schizandra chinensis) Berry | 100mg, 2 times a day with food, standardized to contain at least 9% schisandrinis | • Adaptogen/health tonic; hepatic protection and detoxification\(^{218,219}\)  | • Use with caution in individuals with liver damage.  
• Based on pharmacology, use with caution in individuals taking calcium channel blockers, corticosteroids and reserpine.  
• Do not use in pregnancy due to uterine stimulation.\(^{221}\) |

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| St. John's Wort (*Hypericum perforatum*) Flowering buds | 300mg, 3 times a day, standardized to contain 0.3-0.5% hypericin | • Used in mild to moderate depression, melancholia, anxiety<sup>222,223,224</sup>  
• Anti-viral activity in increased doses<sup>225</sup>  
• Antibacterial, anti-inflammatory; used topically for minor wounds and infections<sup>226</sup>  
• May be used topically for bruises, muscle soreness, and sprains<sup>227</sup> | • Use with extreme caution if taking medications metabolized by the cytochrome P450 system, including:  
  - Indinavir and other protease inhibitors  
  - Theophylline  
  - Digoxin  
  - Cyclosporin  
  - Reserpine  
  - Oral contraceptives  
  - Warfarin  
  - Amitriptyline  
• Do not use in pregnancy.<sup>232</sup>  
• May alter the actions of monoamine oxidase (MAO) inhibitors and select serotonin reuptake inhibitors (SSRIs).<sup>233,234</sup>  
• Use with caution in individuals currently on antidepressant therapy; may cause “Serotonin Syndrome”.  
• Not for use in severe depression.  
• Avoid tyramine –containing foods.  
• May elevate reversible liver enzyme function in high doses.<sup>235</sup>  
• May cause photosensitivity in susceptible individuals.<sup>236</sup> |
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<tr>
<th>Herbal Supplement (Curcuma longa) Root</th>
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| Turmeric                             | 300mg, 3 times a day with meals, standardized to contain 95% curcuminoids | • Antioxidant; anti-inflammatory\(^{237}\)  
• Anti-rheumatic; used in arthritic problems; may lower blood lipid levels\(^{238}\) | • Some individuals may experience GI distress or irritation when beginning use.  
• Use with caution if peptic ulceration is present.  
• Use with caution if currently taking anticoagulant medications.\(^{239}\)  
• Do not use if biliary obstruction is present.\(^{240}\) |
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| Valerian (Valeriana officinalis) Root | 200mg, 1-4 times a day, standardized to contain 0.8-1% valerenic acids | - Used as a sedative or hypnotic; used in nervous tension during PMS, menopause; used in restless motor syndromes<sup>241,242</sup> | - May cause drowsiness or sedation. Use with caution when driving a car or operating heavy machinery.<sup>243</sup>  
- Use with caution in individuals taking the following:  
  - Sedatives;  
  - Antidepressants;  
  - Hypnotics;  
  - Anti-anxiety agents.  
- Reported to increase sleeping time induced by pentobarbital.<sup>244</sup> |
| White Willow (Salix alba) Bark | 500mg, up to 3 times a day, standardized to contain 7-9% salicin | - Antipyretic; anti-inflammatory; used in reducing fever and in arthritic complaints<sup>245</sup> | - Do not use in children due to potential for Reye’s Syndrome.  
- Use with caution in individuals taking the following:<sup>246</sup>  
  - Aspirin  
  - Anticoagulants  
  - Methotrexate  
  - Metoclopramide  
  - Phenytoin  
  - Probenecid  
  - Spironolactone  
  - Valproic acid |

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32 [No Authors], at pp. 306-307.


74 C.A. Newall, et al., at pp. 96-97.


F. Brinker, Herb Contraindications and Drug Interactions (Sandy, OR: Eclectic Institute, 1997) 70.


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