PHYTOmed™ medicinal herbs ltd.

POTENTIAL INTERACTIONS BETWEEN DRUGS AND PHYTOMEDICINES

Herb/Herb Group	Possible Interacting Drugs	Possible Interaction(s)	References
Aloe Vera gel and juice	Oral hypoglycaemic drugs (e.g. glibenclamide)	Increased hypoglycaemic effects possible	
	Vitamin C & E	Increased absorption possible	1
American Ginseng (*Panax quinqefolium)*	Warfarin	Reduced plasma levels in healthy males after 2 weeks ginseng administration	2
	Antipsychotics	Possible potentiation of antipsychotic properties suggested	216
Andrographis	Theophylline	Drug bioavailability reduced in studies on rats	3
Anthraquinone laxatives	Cisplatin	Reduced anticancer activity implicated by in vitro study involving Aloe emodin	2
	Digoxin and other cardioactive glycosides	Potassium depletion (hypokalaemia) leading to increased risk of cardiac toxicity, if large doses used.	4,5
	Thiazide diuretics	Potassium depletion	4,5
Anxiolytics (Valerian, Kava, Passionflower, Californian Poppy, Hops etc)	Hypnotics, tranquillisers, opiates, and some analgesics acting as CNS.depressants	Additive CNS depressant effects, particularly with large doses.	6,7
Anti-platelet agents (e.g. ginger, garlic, clove, feverfew)	Anticoagulants (e.g. warfarin, heparin)	Potentiation of anticoagulant effect and possible bleeding	8
Bacopa monniera	Thyroxine	Possible potentiation of thyroid hormone effects	9
Baical Skullcap (*Scutellaria baicalensis*)	Cyclosporin	Possible reduction in bioavailability of oral cyclosporin if co administered with large doses Baical Skullcap	10
	Etoposide	Possible potentiation of antitumour action, by wogonin	11
	Grape seed	Potentiated antioxidant effects	12
	Rosuvastatin	Reduced plasma concentrations of rosuvastatin possible	12
Barberry *(Berberis vulgaris)*	Antihypertensives	Possible enhanced hypotensive effect, with large doses of fruit extract.	13
Betel Nut (*Areca catechu)*	Antipsychotic drugs	Increased parkinsonian side effects reported with flupenthixol & fluphenazine	14
Bilberry	Warfarin	Possible potentiation of anticoagulant activity, with high doses	15
Bitter melon (*Momordica charantia)*	Oral hypoglycaemic drugs (e.g. chlorpropamide)	Increased hypoglycaemic effects possible, if large doses taken.	16,17
	Vinblastine	Reversal of multidrug resistance reported *in vitro*	18

Bladderwrack (*Fucus vesiculosus)*	Thyroxine	Possible potentiation of thyroid hormone activity	19,20
	Antithyroid agents (carbimazole, propylthiouracil etc)	Possible antagonism of antithyroid hormone activity	19,20
	Amiodarone	Reduced oral drug bioavailability reported in rats	217
Broom (*Cytisus scoparius*)	Antihypertensive drugs	Possible interference with hypotensive activity	21
Buckthorn *(Rhamnus frangula)*	Cardiac glycosides + antiarrhythmic agents	Use of large doses may product hypokalaemia, which potentiates drug toxicity	4,5
Bugleweed *(Lycopus virginicus; Lycopus europaeus)*	Antithyroid agents (carbimazole, propylthiouracil etc)	Possible potentiation of anti-thyroid effects	22,23
	Thyroxine	Possible antagonism of thyroxine activity	22,23
Bupleurum spp	Corticosteroids (eg prednisone)	Theoretical potentiation of anti- inflammatory action of corticosteroids	24
Butterbur (*Petasites hybridus)*	Corticosteroids	Enhanced anti-inflammatory effects in asthma	25
Cascara (and other anthraquinone laxatives)	Digoxin, quinidine and other antiarrhythmic drugs	Possible hypokalaemia with long term laxative use, thus potentiating possible toxicity of cardiac glycosides and antiarrhythmic agents.	4,5
Cassia auriculata	Carbamazepine	Increased bioavailability likely	25
	Theophylline	Increased bioavailability likely	26
Capsicum/ Cayenne pepper	Antacids	Possible antagonism of gastroprotective action	
	Aspirin	Reduced sailicylic acid bioavailability in rats following large doses of chilli	27
	Theophylline	Increased bioavailability possible	28
Chamomile	Antihistamines	Potentiation of antipruritic effects	29
Chaste Tree (*Vitex agnus-castus)*	Haloperidol, chlorpromazine, metoclopramide & other dopamine receptor antagonists	Possible antagonism of antipsychotic or anti-emetic effects, due to possible dopaminergic action of Chaste Tree	30
	Progesterone drugs, oral contraceptives, HRT, clomiphene	Possible interference with activity of hormonal drugs, by as yet unknown mechanisms	31
Cinchona bark (containing quinine)	Antiarrhythmics	Plasma concentration of flecainide increased	32
	Antihistamines	Ventricular arrhythmias with astemizole and terfenadine	33
	Cardioactive glycosides	Plasma concentration of digoxin increased	34
	Cimetidine	Increased plasma levels quinine due to inhibition of metabolism by cimetidine.	35
Cinnamon	Insulin	Possible potentiation of hypoglycaemic effect	36
	Oral hypoglycaemic drugs	Possible potentiation of hypoglycaemic effect	

Cochinchina momordica	Foot & mouth disease vaccine	Enhancement of immune response to vaccine shown in pigs	37
	Influenza vaccination (H5N1)	Enhancement of immune responses shown in chickens	38
Coleus (*Coleus forskohlii)*	Anticoagulants & antiplatelet agents	Potentiation of anticoagulant or antiplatelet effect theoretically possible	39
Cola	Caffeine	Enhanced stimulant effects possible with large doses.	40
	Phenytoin	Increased bioavailability of phenytoin reported in rabbits	41
Cordyceps sinensis	Gentamycin & other aminoglycoside antibiotics	Protection against nephrotoxicity in rats	86
Cranberry	Warfarin	Case reports of increased anticoagulant effects, although no effects shown in healthy volunteers	43-56
Cumin (*Cuminum cyminum)*	Rifampicin	Enhancement of plasma levels by aqueous extract reported	57
Curcumin (from Turmeric)	Vinblastine & other cytotoxics	Possible enhanced cytotoxic effects due to reversal of multidrug resistance	58
	Ethanol	Possible protection against alcohol- induced neurological disorders	59
Dandelion leaf	Diuretics	Theoretical potentiation of diuretic effects with large doses	
Da-Cheng-Qi (*Rheum tanguticum, Citris aurantium*)	Ranitidine	Increased drug bioavailability reported in rats	60
Dan Shen (*Salvia miltiorrhiza)*	Anticoagulants	Potentiation of anticoagulant effects likely	61
	Cycosporin	Protection against nephrotoxicity from parenteral Salvia in rats	62
Diuretics (eg *Apium graveolens)*	Corticosteroids	Increased risk adverse effects due to increased potassium loss (theoretical only).	63
Dong Quai (*Angelica*	Anticoagulants	Theoretical risk of enhanced anticoagulant effects	64
Echinacea	Immunosuppressive drugs (eg cyclosporine, tacrolimus)	Theoretical reduction in immunosuppressive effects, though no cases reported.	65
	Marijuana	Increased sensitivity to pharyngeal irritant effects of alkamide-rich liquid preparations reported.	66
Ephedra sinica	Antihypertensive agents	Possible antagonism of antihypertensive effect	
	CNS stimulants	Sympathomimetic effects; hypertension	
	Digoxin and cardioactive glycosides	Arrhythmias possible	
	Ergotamine and oxytocin	Hypertension possible	
	Halothane	Arrhythmias possible	
	Monoamine oxidase inhibitors (MAOI's)	Life-threatening acute hypertensive response + hyperpyrexia & coma possible	
	SSRI antidepressants	Potentiation of serotonergic effects possible	
Evodia rutaecarpa	Theophylline	Reduction in drug effects possible	67,68

Fenugreek	Antidiabetic agents	Possible potentiation of hypoglycaemic activity (large doses)	69
	Hypolipidaemic agents	Possible potentiation of lipid-lowering effects (large doses)	70
Feverfew	Anticoagulants	Theoretical potentiation of anticoagulant effects	71
Flaxseed *(Linum usitatissimum)*	Many drugs	Theoretical delay in absorption of drugs taken simultaneously	72
Garlic	Adriamycin	Protection against cardiotoxicity from large doses	73
	Anticoagulants (warfarin, phenprocoumon)	Possible mild potentiation of anticoagulant effect	74,75
	Gentamycin	Protection against nephrotoxicity	76
	Platelet inhibitors (dipyridamole, aspirin, indomethacin etc)	Theoretical potentiation of platelet inhibitory effects, with large doses of garlic	77
	Saquinavir	Reduced plasma levels reported, with large doses of garlic	78
Gentian (and other bitters)	Anti Peptic-ulcer agents	Possible antagonism of anti-ulcer effects	
Ginger	Anticoagulants (warfarin, phenprocoumon)	Theoretical potentiation of anticoagulant effect, when high doses ginger taken, though little clinical evidence	79
	Antiplatelet agents (eg aspirin, dipyridamole)	Theoretical potentiation of antiplatelet effect, when high doses ginger taken, though little clinical evidence and no effect in healthy volunteers	79
	Cyclosporin	Large doses ginger may reduce bioavailability of oral cyclosporin	80
	Diclofenac	Reduced plasma levels seen in rabbits from a combined ginger & pepper preparation	81
Ginkgo	Anticoagulants & antiplatelet agents	Theoretical potentiation of anticoagulant or antiplatelet effects, though no effect in healthy volunteers	76,79,82
	Cilostazol	Enhanced anti-atherogenic effect suggested in mice	219
	Doxorubicin	Reduction in cardiotoxicity in animal studies	83
	Gentamycin	Protection against ototoxicity reported in guinea pigs and mice	84
	Haloperidol	Improved efficacy of haloperidol & less adverse effects reported	85,86
	Metformin	Some potentiation of hypoglycaemic action suggested	87,88
	Midazolam	Possible enhancement in drug availability	89
	Simvastatin	Reduced oral simvastatin but not simvastatin acid PK bioavailability reported in healthy	220
	Tolbutamide	Slight attenuation of hypoglycaemic effect possible	89
Ginseng (*Panax ginseng)*	Albendazole	Increased excretion from GIT reported following IV ginseng	90
	Caffeine	Increased stimulant effects possible	91
	Digoxin	Interference with certain laboratory plasma measurements reported	92,93
	Hypoglycaemic drugs	Theoretical potentiation of hypoglycaemic effects, & improvement of insulin resistance	94,82
	MAOI antidepressants	Possible potentiation of MAOI effects, causing headache, mania.	
Globe Artichoke	Cholesterol-lowering drugs	Theoretically additive effects with large doses	70

Goji (*Lycium barbarum)*	Warfarin	3 case reports of potentiated anticoagulant effects	95,96,221
Golden Seal	Debrisoquine	Increased drug levels possible	97
Gotu Kola	Adriamycin	Possible protection against cardiac toxicity	98
Grapefruit juice	Terfenadine	Increased plasma levels reported	99
	Calcium channel blockers	Increased plasma concentration and thus cardiovascular effects I	100
	Chloroquine	Increased plasma concentrations	101
	Fexofenadine	Reduced oral biovailability reported	102
	Immunosuppressant s (eg cyclosporin, tacrolimus, sirolimus)	Increased plasma concentrations	100
	Many other drugs	Possible increased plasma concentration and thus effects	103
	Statins	Increased plasma levels reported	104
Green Tea	Bortezomib	Reduced anticancer effects of bortezomib reported in vitro	105
Guar gum (and other bulking	Antibiotics	Absorption of phenoxymethypenicillin reduced	106
Gymnema sylvestre	Hypoglycaemic drugs, including insulin	Possible potentiation of hypoglycaemic effects	107
Hawthorn	Digoxin & other cardiac glycosides	Increased inotropic and other cardiovascular activity, possibly requiring dosage reduction.	108
	Hypotensive drugs	Increased hypotensive effect possible, with large doses of hawthorn.	108
Hemidesmus indicus	Gentamicin	Protection against nephrotoxicity shown in animal studies	109
Honey	Carbamazepine	Reduced plasma levels of carbamazepine reported following large doses honey in rabbits	110
	Diltiazem	Reduced plasma levels diltiazem reported following large doses honey to rabbits	111
	Phenytoin	Increased plasma levels of phenytoin reported in rabbits	112
Hops	Benzodiazepines, Hypnotics, Opioid analgesics, Tricyclic antidepressants	Potentiation of sedative effects	113
Horsechestnut	Anticoagulants & antiplatelet agents such as warfarin and aspirin	Potentiation of anticoagulant effects reported.	114
	5 – Flourouracil	In vitro potentiation of activity against hepatocellular carcinoma reported for β-aescin	115
Horseradish	Propylthiouracil, methimazole & other anti-thyroid agents.	Increased thyrotoxic activity possible with large doses	116
	Thyroxine	Possible antagonism of thyroxine activity, with large doses	116
Karela (*Momordica charantia)*	Insulin, sulphonylureas, biguanides	Potentiation of hypoglycaemic effects possible	117

Kava	Dopamine antagonists (eg antipsychotics, metoclopramide)	Increased risk of Parkinsonian side effects theoretically possible.	118
	Drugs with a risk of hepatotoxicity	Possible increased risk of hepatotoxicity	119
	Ethanol	Additive C.N.S. depressant effects possible, especially with large doses.	120
	Levo-dopa & other dopaminergic agents	Possible reduction of efficacy of l-dopa in Parkinson's disease.	118
	Sedative drugs (hypnotics, benzodiazepines, opiates, some analgesics)	Additive C.N.S. depressant effects possible, especially with large doses.	121
Kelp	Antithyroid agents (carbimazole, propylthiouracil etc)	Possible interference with antithyroid activity	19,20
	Thyroxine	Possible potentiation of thyroid hormone activity	19,20
Kyushin (Japanese preparation)	Digoxin	Possible interference with digoxin plasma assay	
Laxative (anthraquinone-containing) herbs	Antiarrhythmic drugs	Possible interference with drug activity if hypokalaemia following long term laxative abuse	4,5
	Digoxin	Possible digoxin toxicity due to hypokalaemia if long term laxative abuse	4,5
Lemon	Chloroquine	Possible reduction in bioavailability & thus antimalarial effects	122
Liquorice	Antihypertensives	Interference with hypotensive effects, with prolonged use of large doses	123
	Azathioprine	Lowered risk of hepatotoxicity possible	124
	Corticosteroids	Theoretical potentiation of steroidal effects	
	Digoxin	Hypokalaemia leading to adverse cardiovascular effects, if large doses taken.	123
	Lignocaine	Enhanced drug clearance in rats reported for *Glycyrrhiza uralensis* (Chinese liquorice)	125
	Thiazide and loop Diuretics	Hypokalaemia with adverse effects especially likely when combined with digoxin as above	126
Milk Thistle (St Mary's Thistle)	Doxorubicin	Protection against myocardial adverse effects shown in rats	127
	Glibenclamide, metformin	Improved diabetic control possible	128
	Metronidazole	Reduced antibiotic effects possible; Silymarin shown to increase clearance of metronidazole	129
	Rispiridone	Increased oral drug bioavailability reported in rats	223
Myrrh	Warfarin	Case report of reduced anticoagulant effects	130
Nigella sativa	Amoxycillin	Enhanced parenteral and oral bioavailability reported in rats	218

Ocimum gratissimum (African basil)	Ampicillin	Enhanced activity against E Coli & Proteus mirabilis suggested	131
	Cotrimoxazole	Enhanced activity against E Coli suggested	131
	Ketoconazole	Enhanced anti-Candida activity suggested	131
	Nystatin	Enhaced ant-Candida activity suggested	131
Orange Juice	Atenolol, Celiprolol & possibly other beta- blockers	Reduced bioavailability following 200ml orange juice three times daily.	132
Paeony	Sodium picosulphate & other stimulant laxatives; amoxicillin & metronidazole	Reduced plasma levels of paeony active metabolite possible.	133-134
Passionflower	Benzodiazepines, hypnotics, opioid analgesics, tricyclic antidepressants	Theoretical potentiation of sedative effects	7
Pepper (*Piper nigrum* (black); *Piper longum* (long).	Amoxycillin, cefotaxime & other beta lactam antibiotics	Increased plasma levels possible	135
	Diclofenac & other NSAID drugs	Reduced plasma levels shown from combined pepper & ginger preparation in rabbits	136
	Phenytoin, Rifampicin	Increased bioavailability shown with piperine	136
Pomelo Juice *(Citrus maxima)*	Cyclosporin	Increased bioavailability reported in healthy volunteers	137
	Tacrolimus	Case report of increased plasma levels	138
Psyllium seed	Digoxin, warfarin, lithium, carbamazepine & possibly other drugs	Decreased absorption from GIT possible, with simultaneously administered drugs, though controversial	139,140
Reishi mushroom *(Ganoderma lucidum)*	Benzodiazeprines & other sedatives	Potentiated hypnotic effects shown in rats	141
Rhodiola rosea	Losartan	Increased oral drug bioavailability reported in rabbits	224
Rhubarb *(Rheum palmatum)*	Digoxin and other cardiac glycosides	Potassium loss and thus increased risk of cardiovascular toxicity, with prolonged use or abuse	4,5
Rosemary	Azathioprine	Protection against azathioprine- induced liver toxicity	142
	Chemotherapy drugs	Enhanced intracellularaccumulation of doxorubicin and vinblastine reported *in-vitro*	143
Sage	Azathioprine	Protection against azathioprine- induced liver toxicity	144
Salboku-to (Asian herbal mixture; contains same herbs as 'Sho-saiko-to', plus xiao chai hu tang, *Poria cocos, Magnolia officinalis, Perillae frutescens)*	Prednisolone or prednisone	Increased steroidal effects possible	145

Schisandra *(Schisandra chinensis & sphenanthera)*	Cyclosporin A	Enhanced oral drug bioavailability reported for low but not high drug dosage in rats	225
	Cytotoxics	Possible enhanced cytotoxic effects by large doses due to reversal of multidrug resistance by gomisin A and schisandrol A	146,147,148
	Paclitaxel	Enhanced oral bioavailability of paclitaxel in rats	149
	Rapamycin	Enhanced oral drug bioavailability reported in healthy volunteers	
	Tacrolimus	Enhanced oral bioavailability shown in healthy volunteers	150
Sedatives (eg Valerian, Hops, Kava, Passionflower)	Sedative drugs (eg benzodiazepines, clonidine, opioid analgesics, phenobarbitone)	Potentiation of sedative effects	7,121
Senna (*Cassia spp)*	Cardiac glycosides & antiarrhythmics (eg quinidine)	Hypokalaemia leading to increased risk of cardiac toxicity.	4,5
Senega (*Polygala senega*)	Hypoglycaemic drugs	Possible enhancement of hypoglycaemic effects	151
Shankhapushpi (Ayurvedic preparation)	Phenytoin	Decreased phenytoin concentrations, loss of seizure control	152
"Sho-saiko-to" (Minor Bupleurum)	Carbamazepine	Reduced plasma levels measured in rats after large doses	153
Siberian Ginseng (*Eleutherococcus senticosus)*	Digoxin	Interference with certain laboratory serum digoxin measurements reported	154
Slippery Elm	Various drugs	Theoretical reduction in absorption & thus clinical effects	
Sophora flavescens (Kushen)	Various drugs	Theoretical enhancement of effects through inhibition of CYP450 3A4	155
St John's Wort	Amitriptyline & nortriptyline	Possible reduction in plasma levels and thus antidepressant effects	156
	Atorvastatin	Rduced hypocholesterolaemic effect possible	157
	Carbamazepine	Theoretical reduction in plasma levels, though no effects in a volunteer study.	158
	Cisplatin	Possible protection against cisplatin nephrotoxicity by pre- treatment with large doses.	159
	Cyclosporin, tacrolimus & other immunosuppressants	Possible reduction in plasma immuno-suppressant levels, & thus compromised treatment/ transplant rejection.	160
	Daunorubicin	Possible reduction in plasma levels & thus failure of cytotoxic effect.	161
	Digoxin	Possible reduction in plasma digoxin levels, and thus therapeutic failure	162
	Docetaxel	Possible reduced plasma levels & thus failure of cytotoxic effect.	163
	Fexofenadine	Reduction of plasma levels & thus antihistaminic effects	164
	Gliclazide	Reduced plasma levels possible	165
	Imatinib mesylate	Possible reduced plasma levels & thus failure of cytotoxic effects	166
	Indinavir, saquinavir, ritonavir & other protease inhibitor antivirals	Possible reduction in plasma levels, & thus failure of antiviral effect.	167

St John's Wort *continued…*	Irinotecan	Reduced plasma levels of active metabolite SN-38 in cancer patients reported.	168,169
	Ivabradine	Reduced plasma levels possible	170
	MAOI's	Theoretical possibility of serious serotonin syndrome, though no cases reported	
	Methadone	Case reports of reduced plasma levels in 2 methadone maintenance patients	171
	Midazolam	Reduced plasma levels in volunteer study	172
	Morphine	Potentiated antinociceptive effects reported in mice	173
	Nevirapine	Reduced plasma levels reported	174
	Nifedipine	Reduced plasma levels reported	175
	Omeprazole	Reduced plasma levels reported	176
	Oral contraceptives	Increased breakthrough bleeding possible; case reports of unwanted pregnancies though no evidence of reduced efficacy from 3 controlled studies	177,178,179
	Oxycodone	Possible reduction in plasma levels and thus analgesic effect	180
	Phenobarbitone	Theoretical reduction in plasma levels	181
	Phenprocoumon	Reduced plasma levels & thus anticoagulant effects	182
	Phenytoin	Theoretical reduction in plasma levels.	181
	Procainamide	Single dose of SJW increases procainamide plasma levels in mice	183
	Quazepam	Reduced plasma levels possible	184
	Simvastatin	Reduced plasma concentrations & thus hypocholesterolaemic effects	185
	SSRI antidepressants (eg fluoxetine, sertraline, paroxetine)	Theoretical possibility of serious serotonin syndrome, though few case reports to date	
	Talinolol	Reduced plasma levels possible	186
	Tacrolimus	Reduced plasma levels reported in renal transplant patients	187,188
	Tolbutamide	Increased incidence of hypoglycaemia	182
	Triptans (sumatriptan, naratriptan, rizatriptan, zolmitriptan)	Theoretical possibility of serotonin syndrome, though no case reports to date	
	Verapamil	Reduced bioavailability reported in healthy volunteers	189
	Warfarin	Possible reduction in anticoagulant effect	190,191
	Zolpidem	Reduced plasma drug levels reported	192

Sympathomimetics (e.g. ephedrine and pseudoephedrine from *Ephedra spp*)	ACE inhibitors	Severe hypertension	193
	Anaesthetics	Arrhythmia	194
	Antidepressants	Hypertensive crises with MAOIs; hypertension, arrhythmias with tricyclics	195,196
	Antihypertensives Antipsychotics Beta-blockers	Antagonism, hypertension (possibly severe)	197,193
	Bronchodilators	Potentiation	
	Diuretics	Increased risk of hypokalaemia	
	Dopaminergics	Increased risk of toxicity with bromocriptine	199
	Sympathomimetics Vasoconstrictor	Potentiation and hypertension Increased vasopressor effects	
Tamarind (*Tamarindus indica)*	Choroquine	Reduced chloroquine bioavailability shown in healthy volunteers	200
	Ibuprofen	Increased ibuprofen bioavailability shown in healthy volunteers	201
Tannin-rich agents	Iron, Zinc, Calcium & mineral preparations	Possible reduced mineral absorption from GIT	202
	Many drugs	Theoretical reduction in absorption from GIT, although virtually no evidence to date	
	Protein rich preparations	Possible reduced protein absorption from GIT	
Thyme	Tetracycline-based & possibly β-lactam-based antibiotics	Potentiation of antibiotic effects against MRSA possible with large doses	203
Trikatu (Ayurvedic preparation containing ginger, black pepper, and *Piper longum*)	Ibuprofen	Reduced bioavailability reported in rabbits	136
	Rifampicin	Rate but not extent of bioavailability reduced in rabbits	204
Turmeric	Platelet inhibitors (eg aspirin, dipyridamole) and Anticoagulants (warfarin)	Possible potentiation of antiplatelet effect with high doses of turmeric or curcumin	205
Uzara root (Ayurvedic preparation)	Digoxin	Interference with digoxin plasma assay	206
Valerian	Benzodiazepines, hypnotics, tricyclic antidepressants, opioid analgesics, anaesthetics	Potentiation of sedative effects & prolongation of anaesthesia	207
Vasoconstrictors (e.g. Broom)	Antihypertensives	Antagonism	21
	Sympathomimetics	Hypertension	
Vasodilators (eg Hawthorn)	Antihypertensives	Additive effects	
Vitamins	Anticoagulants	Vitamin K antagonizes	
	Anticonvulsants	Folic acid occasionally reduces plasma concentration; vitamin D requirements increased	208
	Diuretics	Hypercalcaemia with thiazides and vitamin D supplementation	209
	Dopaminergics	Levodopa antagonized with pyridoxine	211
Willow bark	Anticoagulants	Theoretical potentiation of anticoagulant effects with large doses	
Xanthine-rich remedies (e.g. Cola, Guarana, Mate)	Antidepressants, selective serotonin reuptake inhibitors (SSRIs)	Plasma concentration of xanthines increased	213
	Antihypertensives	Antagonism of hypotensive effect possible.	214
Yohimbe (*Pausinystalia yohimbe)*	Antihypertensives	Antagonism of hypotensive effect possible.	215

POTENTIAL INTERACTIONS BETWEEN DRUGS AND PHYTOMEDICINES

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