

# A Pharmacist's Guide for Collection of Complementary Alternative Medication (CAM) and Dietary Supplement Information from Patients

## A. APPROACHING PATIENTS TO ASCERTAIN CAM/SUPPLEMENT USE *(50% of patients do not share info on CAM use with health care professionals)*

1. At time of filling/refilling of prescriptions
2. During other routine pharmacy visits
3. During purchase of CAM products by patient

## B. DOCUMENTING CAM USE *(ask below questions, document CAM use )*

### 1. VITAMINS/MINERALS/DIETARY SUPPLEMENTS

**“During the past month, have you used any VITAMINS or MINERALS or other DIETARY SUPPLEMENTS for your own health or treatment? This could be in the form of a pill or capsule, or liquid. This would NOT include any natural herbs that you might be taking.”**

*(if yes.... ) “Which did you use?” (Document or mark each supplement mentioned from the list below)*

-Vitamin A (retinol, carotenes) (7)	-Vitamin E	-Chondroitin (14)	-Fluorine	-L-Lysine	-Potassium
-Vitamin B (any; includes thiamine, riboflavin, niacin, pyridoxine, pantothenic acid, folic acid, cyanobalamin)	-Vitamin H/Biotin	-Chromium (16)	-Glucosamine (14)	-Magnesium	-Selenium
-Vitamin C/Ascorbic Acid—high dose (7)	-Vitamin K (Warfarin)	-Cobalt	-Glutathione	-Manganese	-Shark Cartilage
-Vitamin D	-Alpha linolenic acid	-Coenzyme Q10/CoQ10 (17, 24)	-Iodine	-Melatonin (12, 13, 17)	-Zinc
	-Antioxidant	-Copper	-Iron	-Multivitamin	
	-Calcium	-Fish Oil (12, 13 17)	-Lecithin	-N-acetylcysteine/cysteine	
	-Cesium		-Linoleic acid		

*(for each product ask) “How often did you take this during the last month?”*

### 2. HERBAL PRODUCTS

**“People use natural herbs for a variety of health reasons. Some people drink an herbal tea to remedy a flu or cold. Others take a daily herb pill to help with a health condition or just to stay healthy.**

**During the past month, have you used any NATURAL HERBS or other natural products for your own health or treatment?”**

*(if yes.... ) “Which did you use?” (Document or mark each supplement mentioned from the list below)*

-Alfalfa (23)	-Cod liver oil (12, 13, 17)	-Glucosamine (14)	-Mistletoe	-Soy supplements (8)
-Algae	-Cranberry	-Goldenseal	-Mother wort	-St John's Wort (3, 9, 10, 11, 19)
-Aloe (5, 12, 12)	-Comfrey	-Grapefruit juice	-Mushroom	-Thea sinensis
-Bee pollen	-DHEA	-Grape seed (12)	-Pau d'arco (12, 13)	-Valerian
-Bilberry (12)	-Dong quai/don gui tong kuei	-Green tea/extract	-Papaya (12)	-Wild yam root
-Bioflavonoids	-Echinacea	-Guarana	-Peppermint	-Wormwood
-Bittersweet	-Elderberry	-Guava juice	-Poke root	-Yohimbe
-Black cohosh	-Essiac	-Hawthorn	-Proanthocyanidin	
-Bladder wrack/kelp	-Evening primrose (12)	-Herbal teas	-Progesterone cream	
-Brewer's yeast	-False unicorn	-Kava	-Psyllium	
-Capsaicin (12)	-Feverfew	-Kelp (6, 12)	-Pycnogenol (12)	
-Cascara sagrada	-Flaxseed/flaxseed oil (12)	-Licorice (26)	-Ragweed/chamomile	
-Cayenne (12, 13)	-Garlic (1, 4, 9, 13, 15, 18, 25)	-Lutein	-Royal jelly	
-Chaparral	-Ginger (12)	-Lycopene	-SAM-e	
-Chasteberry/vitex	-Gingko (1, 13, 16, 20, 22)	-Ma huang (ephedra)	-Saw palmetto	
-Chlorophyll	-Ginseng (2, 12, 16, 21, 22)	-Mexican yam cream	-Senna	
-Cloves		-Milk thistle	-Sepia	

### C. SCREENING FOR CAM DRUG INTERACTIONS

1. Review list of CAM products generated from (B) above
2. Consult screening table (below) for known significant and potential drug interactions/ADRs (numbers listed after CAM products in product table correspond to numbered interactions in screening table)
3. Estimate event risk using all available information, and establish recommendation for patient or patient's physician. PLEASE NOTE that this is not a comprehensive list of interactions, only some that appear to be somewhat common. CHECK FOR OTHER INTERACTIONS AND HERB DISEASE INTERACTIONS.
4. Further information on dietary supplements, adverse effects, and drug interactions can be found on Medline Plus. <http://www.nlm.nih.gov/medlineplus/druginformation.html>.
5. Serious adverse events potentially related to dietary supplement use can be reported to the FDA's Medwatch system. <http://www.fda.gov/safety/MedWatch/>

CAM/ Supplement	Interacting Drug(s)	Event	Event Risk	Mechanism*	Recommendation
1. Garlic, Ginkgo	Aspirin, warfarin, antiplatelet adhesion drugs	Bleeding	Significant	Additive	Discourage
2. Ginseng	Warfarin	Bleeding	Significant	Induction	Discourage
3. St. John's wort	Digoxin, felodipine	Decreased drug benefit	Significant	Induction	Discourage/ monitor digoxin levels
4. Garlic	Tamoxifen	Decreased drug benefit	Significant	Induction	Discourage
5. Aloe	Furosemide	Hypokalemia	Significant	PD Interaction	Monitor/ Discourage
6. Kelp	Thyroid	Hyperthyroidism	Significant	PD Interaction	Monitor/ Discourage
7. Vit A (high dose, retinol); Vit C (high dose)	Chemotherapeutic agents	Reduced drug effect	Significant	PD Interaction	Discourage
8. Soy	Chemo/breast cancer	Cancer progression	Possible	Estrogenic	Discourage
9. St. John's Wort, garlic	Chemotherapeutic agents	Reduced drug effect	Significant	Induction	Discourage
10. St. John's Wort	SSRIs, serotonergic drugs	Increased effect, serotonin syndrome	Significant	Synergy	Discourage
11. St. John's Wort	Oral Contraceptives	Decreased drug effect	Significant	Induction	Discourage
12. Aloe, bilberry, capsaicin, cayenne, cod liver oil, fish oil, flaxseed oil, ginger, ginseng, grape seed, kelp, melatonin, papaya, Pau d'arco, evening primrose oil, pycnogenol	Aspirin	Bleeding	Possible		Monitor
13. Aloe, cayenne, cod liver oil, fish oil, garlic, ginkgo, melatonin, Pau d'arco	NSAIDs	Bleeding	Possible		Monitor
14. Glucosamine, Chondroitin	Warfarin	Bleeding	Possible		Monitor
15. Garlic	Gemfibrozil	Bleeding	Possible		Monitor
16. Chromium, ginkgo, ginseng	Oral hypoglycemics	Hypoglycemia	Possible	PD Interaction	Monitor
17. Cod liver oil, CoQ10, fish oil, melatonin	Antihypertensives	Hypotension	Possible	PD Interaction	Monitor
18. Garlic	(CYP3A4 substrates only) Antihypertensives, statins, diazepam, erythromycin, carbamazepine, alprazolam, quinine	Decreased drug benefit	Possible	Induction	Monitor
19. St John's Wort	Antihypertensives	Decreased drug benefit	Possible	Induction	Monitor
20. Ginkgo	Omeprazole, amitriptyline, propranolol, diazepam	Decreased drug benefit	Possible	Induction	Monitor
21. Ginseng	Furosemide, opioids	Decreased drug benefit	Possible	Unknown	Monitor
22. Ginkgo, ginseng	Nifedipine	Increased drug effect	Possible	Induction	Monitor
23. Alfalfa	Conjugated estrogens	Estrogen overload	Possible		Monitor
24. CoQ10	Digoxin	Digoxin toxicity	Possible	P-glycoprotein inhibition	Monitor
25. Garlic	Methotrexate	Unclear, some evidence that garlic protects from methotrexate toxicity	Possible		Monitor
26. Licorice	Furosemide	Hypokalemia	Possible		Monitor

\*PD = Pharmacodynamic, Induction = Enzyme Induction, Inhibition = Enzyme Inhibition, Additive = Additive Effects

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