

## How common are supplement/drug interactions?

### Study Finds Low Risk of Dietary Supplement and Prescription Drug Interactions

A recent study published in the March edition of the *American Journal of Medicine* has found very little actual risk of harm from dietary supplement and prescription drug interactions.<sup>1</sup>

The authors of the study based their results on responses to an 85-question survey administered to 1818 patients from 6 specialty clinics of the Mayo Clinic from September 2002 through July 2003. Of the 1795 patients who responded to the survey, 710 (or 39.6%) reported that they used dietary supplements. Survey respondents provided medical records with information on their prescription medications, and respondents indicated in the survey whether they concurrently used dietary supplements by choosing from a list of 52 dietary supplements or entering the names of unlisted supplements. Prescription medications included physician-prescribed pharmaceuticals, as well as aspirin. For the purposes of this survey, the term “dietary supplements” was defined as products containing herbs or other botanical components, amino acids, enzymes, organ tissues, glandular extracts, or metabolites but excluded vitamins and minerals. [Editor’s note: The Dietary Supplement Health and Education Act of 1994 includes vitamins and minerals in the legal definition of dietary supplements.]

The authors of the study compiled a master list of potential medication interactions based upon potential herb-drug interactions noted in the MEDLINE database, the Natural Medicines Comprehensive Database, and the textbook *Herb Contraindications and Drug Interactions: With Extensive Appendices Addressing Specific Conditions, Herb Effects, Critical Medications, and Nutritional Supplements, 3rd ed* (Eclectic Medical Publications, 2001). Based on the survey data, the authors identified 369 potential interactions among 236 patients, and 107 of these interactions were considered to have potential clinical significance.

The 5 most commonly used dietary supplements with a potential for interaction (garlic [*Allium sativum*], valerian [*Valeriana officinalis*], kava [*Piper methysticum*], ginkgo [*Ginkgo biloba*], and St. John’s wort [*Hypericum perforatum*]) accounted for 68% of all possible interactions, and the 4 most common prescription medication classes with a potential for interaction (antithrombotic medications, sedatives, antidepressants, and antidiabetic agents) accounted for 94% of all possible interactions. However, no patient who participated in the survey experienced serious harm from a possible interaction during the study period, as determined by the patients’ medical records. “Serious harm” was defined as hospitalization for an aggravated underlying medical condition or for a new medical problem caused by an interaction.

According to the researchers, the study showed that only a small number of prescription medications and dietary supplements accounted for most potential herb-drug interactions. Moreover, the fact that no actual interactions were noted during the survey period demonstrated that the real potential for harm was low. The authors added that some interactions included in the study may be considered speculative; nevertheless, the high prevalence and long duration of use and multiple active constituents of botanicals and other dietary supplements may warrant a cautious approach.

Reference <sup>1</sup>Sood A, Sood R, Brinker FJ, Mann R, Loehrer LL, Wahner-Roedler DL. Potential for interactions between dietary supplements and prescription medications. *American Journal of Medicine*. 2008; 121(3):207-211.