

New Book Provides Definitive Guide to Supplement-Drug Interactions

The recent release of the landmark textbook *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies* provides the most detailed, complete source of information available on how commonly used herbs and nutrients interact with medications. Using these therapies together can support or interfere with a drug's action, or lead to adverse effects.

The book is co-authored by a team of practicing health care professionals with special expertise in integrative medicine: Dr. Mitchell Stargrove, a naturopathic physician, Jonathan Treasure, an authority on medical herbalism, and Dr. Dwight L. McKee, a diplomat of the boards of Internal Medicine, Medical Oncology, and Hematology. Over 60 of the most commonly used herbs and nutrients are covered in depth.

This collaborative effort goes beyond previous books on herb-drug-nutrient interactions in that it analyzes the source, strength, and relevance of the scientific studies, and clearly presents the information in a clinically relevant format. Special consideration is also given to how nutrients are depleted from the body by specific medications.

For instance, the book discusses 26 different classes of drugs that may interact with the essential B vitamin, folic acid. The common antidiabetic drug metformin (Glucophage®), for example, reportedly depletes folic acid by affecting its absorption. This may partially explain why higher homocysteine levels are seen with long-term metformin use. Folic acid and other B vitamins help keep homocysteine levels down. Since both diabetes and high homocysteine levels are associated with increased cardiovascular risk, folic acid supplementation appears to be especially crucial for metformin users.

Folic acid may also benefit individuals who use the cardiovascular drug nitroglycerin by preventing drug tolerance (decreased efficacy with use). Nitroglycerin becomes less effective at over time by interfering with the enzymes that make nitric oxide (NO), which is needed for healthy arterial function and blood flow. Co-administering folic acid with nitroglycerin may help enhance the drug's therapeutic effects.

Folic acid may also play an important role for those taking lithium or selective serotonin-reuptake inhibitor (SSRI) medications such as fluoxetine (Prozac®) for depression. Clinical studies have shown that folic acid supplementation enhances the antidepressant action of these pharmaceuticals, likely due to its role as a cofactor in the production of neurotransmitters, which control mood.

Drug therapy may be detrimental to vitamin K levels, which can be depleted by several classes of medications. Oral corticosteroids such as prednisone, for example, can cause increased urinary loss of vitamin K. Vitamin K deficiency contributes to vascular calcification as well as bone loss.

Coenzyme Q10 (CoQ10) is another important nutrient depleted by numerous common medicines, including sulfonylureas and related oral hypoglycemic agents for diabetes, tricyclic antidepressants, cholesterol-lowering statins, and the chemotherapy agent doxorubicin (Adriamycin®). Individuals using these drugs may thus benefit from CoQ10 supplementation.

The authors examine the possible interaction of CoQ10 with the anti-coagulant warfarin and find that it lacks clear scientific support. While four case reports have documented that CoQ10 interfered with the action of warfarin, existing studies are merely suggestive and fragmentary. Still, individuals who use warfarin should have their international normalized ratio (INR) levels closely monitored if they choose to supplement with CoQ10.

Access to accurate, clinically relevant information on herb-drug and nutrient-drug interactions is vital to anyone combining these therapies. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies* provides consumers with the ability to work with their doctors to confidently design safe and effective integrative treatment plans.

—Michael J. Hall, ND

- Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies*. St. Louis, MO: Mosby Elsevier; 2008.