

# Drugs that steal

Is there a thief hiding in your medicine cabinet? If you are currently taking a prescription medication, the answer to that question would be "yes." Prescription medications deplete the body of essential nutrients. The ways that drugs negatively affect the status of nutrients in the body include inhibition of absorption, synthesis, transportation, storage and metabolism or excretion of individual nutrients. Older adults especially are in the high risk group of developing nutrient deficiencies due to the multiple prescription drugs they are taking in addition to consuming inadequate diets, thus compounding the problem of nutrient deficiency. In 1991, older Americans filled 650 million prescriptions for drugs. The latest survey data indicate that 86 percent of Medicare beneficiaries are taking prescription medication.

Many commonly prescribed medications may in some cases actually deplete your body of essential nutrients needed to treat the condition you are taking the medication to address. For example, beta blockers used to treat hypertension, angina and arrhythmia deplete the body of coenzyme Q10, which according to numerous scientific research (most recently in the March 1999 *Journal of Human Hypertension*) is actually part of the protocol to treat such conditions.

Let's take a look at some classes of commonly prescribed medications and the nutrients they deplete.

**Antiarrhythmic agents:** Digoxin depletes calcium, magnesium, phosphorus and B1. Phenytoin, which is used for ventricular arrhythmia as well as grand mal, simple partial and complex partial seizures, depletes the body of biotin, calcium, folic acid, thiamine, B12, vitamin D and vitamin K.

**Antihypertensives:** Beta blockers (used for hypertension, angina and arrhythmia) deplete coenzyme Q10. ACE inhibitors

(benazepril, captopril, enalapril, fosinopril, lisinopril) collectively deplete the body of zinc. Hydrochlorothiazide and triamterene deplete the body of B6, folic acid and calcium.

**Antilipemic agents:** Cholestyramine resin and colestipol deplete the body of beta-carotene, folic acid, vitamin A, B12, vitamin D, vitamin E, vitamin K, calcium, iron, magnesium, phosphorus and zinc. Statin drugs (atorvastatin, cerivastatin, fluvastatin, lovastatin, simvastatin) deplete the body of coenzyme Q10.

**Antidiabetic agents:** Metformin (Glucophage), acetohexamide (Dymelor), glyburide (DiaBeta, Glynase PresTab, Micronase), tolazamide (Tolinase), tolbutamide (Orinase) as a group deplete coenzyme Q10, with desipramine also depleting the body of B12. Because diabetes is a cardiovascular disease risk factor, the depletion of these nutrients places the individual at increased risk because of the fact that coenzyme Q10 and B12 contribute to proper cardiovascular health.

**Antibiotics:** Besides destroying beneficial gut bacteria that aid digestion, protect against infection and synthesize certain nutrients, tetracyclines (achromycin, Sumycin, tetracap, panmycin), penicillins, cephalosporins, fluoroquinolones and sulfonamides deplete the body of B1, B2, B3, B6, B12, biotin, inositol, vitamin K, iron and magnesium.

**Antidepressants:** Amoxapine (Asendin), desipramine (Norpramin), nortriptyline (Aventyl Hydrochloride), protriptyline (Vivactil), amitriptyline (Elavil), clomipramine (Anafranil), doxepin (Adapin) and imipramine (Tofranil) deplete the body of coenzyme Q10 and B2.

**Anti-inflammatory agents:** The nonsteroidal anti-inflammatory drugs diclofenac, diflunisal, etodolac, fenoprofen, ibuprofen, ketoprofen, mefenamic acid, nabumetone, naproxen and piroxicam all deplete the body of folic acid.

**Estrogens (conjugated and esterified):** Premarin, estratab and

menest deplete the body of B6, magnesium and zinc.

What can be done? First, make sure the prescribed medication is absolutely necessary by seeking advice from a nutritionally oriented physician. If no alternatives are available, discuss the need for replacing the depleted nutrients with your primary care physician in addition to working with a nutritionist to help you design a healthy diet. By obtaining information from health professionals and working closely with your doctor, you can avoid being a victim of drugs that steal.

### **References:**

"Best Pills Worst Pills II," Sidney M. Wolfe, M.D.; Rose-Ellen Hope, R.Ph, Public Citizen's Health Research Group, Washington D.C., 1993.

*Drug-Induced Nutrient Depletion Handbook*, Ross Pelton, R.Ph, Ph.D., CCN; James B. LaValle, R.Ph, DHM, NMD, CCN; Ernest B. Hawkins, R.Ph, MS; Daniel L. Drinsky, R.Ph, MS, Lexicomp Clinical Reference Library, 1999.

*Heart Drugs*, Martin Goldman, M.D., Henry Holt Publishing, Inc., New York, 1992.

"Effect of hydrosoluble coenzyme Q10 on blood pressures and insulin resistance in hypertensive patients with coronary artery disease," Singh RB; Niaz MA; Rastogi SS; Shukla PK; Thakur AS, J Hum Hypertens 1999 Mar;13(3):203-8.