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Dr. Pelton is a pharmacist, consultant, health educator, Certified Clinical Nutritionist and Ph.D. in Psychology and Holistic Health. Dr. Pelton has educated extensively on drug-induced nutrient depletion to both health professionals and consumers. Dr. Pelton conducts lectures, seminars and health programs to individuals and businesses through his Ashland, Oregon-based company Healthy Longevity Coaching and Consulting.

To learn more about drug-induced nutrient depletion, read *The Nutritional Cost Of Drugs: A Guide To Maintaining Good Nutrition While Using Prescription And Over-The-Counter Drugs* (Morton Publishing Co., 2004) – written by Dr. Pelton and James B. LaValle, R.Ph., ND, CCN.

Drugs' Healthy Counterpart

Prescription drug-induced nutrient depletion may be one of the most significant side effects that Americans aren't aware of. But the solution may be surprisingly simple: take nutritional supplements to replenish what prescription drugs might be taking away.

By Patrick Dougherty

According to a 2008 study by Medco Health Solutions Inc., over half of all Americans are taking at least one prescription drug. Another recent report reveals that of the 960+ million doctor visits made annually, over 70 percent concluded with a doctor writing out a prescription. Perhaps most striking, in over 40 percent of visits, between two and seven drugs were prescribed.

Clearly, prescription drugs are America's treatment of choice – accelerating recovery, easing symptoms and offering hope to the unwell. While patients equate drugs with their positive role in treatment, they are also increasingly aware of drugs' occasional side effects. But even the most vigilant patient may not feel a silent side effect that some drugs may promote – as they deplete the nutrients the body needs for peak health and vitality.

SIMPLE SOLUTION

Experts believe that even as they help us feel better, drugs can interfere with the absorption and metabolism of nutrients, block nutrients' receptor sites and even interfere with the body's ability to synthesize its own nutrients. Despite these actions, drug-induced nutrient depletion is still an under-the-radar phenomenon – partly because its influence is so subtle. While common drug side effects like nausea or dizziness are immediately obvious, nutrient depletion-related complications could take months or even years to manifest.



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In this day and age, a vast number of people are undernourished. We exist in a culture where many people rely on processed junk foods. Meanwhile, factory farming has done horrible things to the nutritional content of our food supply. Everybody's lives are stressful, and additionally the environment is more polluted than it has ever been [stress and toxins deplete nutrients].

When a drug, or multiple drugs, create nutritional deficiencies on top of this existing nutrient inadequacy, it's an additive effect . . . I feel that the nutrient depletion issue related to drugs is a contributing factor to increased health problems.

I think the most important thing is to try to educate health professionals and the general public about this topic so that they can take appropriate actions to replenish the nutrients that are possibly depleted by the drugs they are taking. With this knowledge, people can improve their own health outcome.

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cases, taking nutritional supplements will prevent the depletion problem.” With that, patients will understand that if their next prescription comes with a side of nutritional supplements, it is for a very good reason – as well as being a very good reflection of their doctor's dedication to promoting health. Rx

“Consider a woman who's been on birth control pills for seven years with no problems,” explains Pharmacist and Certified Clinical Nutritionist Dr. Ross Pelton. “Gradually over the last six months or so, she has less energy until she can hardly get out of bed. She's not likely to realize that over time, oral contraceptives can create folic acid, coenzyme Q10, iron and vitamin B12 deficiencies . . . all of which can lead to tiredness and weakness.”

Because of its gradual onset, nutrient depletion can be difficult to diagnose and may trigger symptoms that are commonly treated with more pharmaceutical drugs. “Oral contraceptives also deplete vitamin B6 and tyrosine,” continues Pelton. “These deficiencies interfere with serotonin

pathways, which can lead to depression and sleep problems.” In this scenario, a sleep-deprived woman who feels tired and depressed might consult her doctor, who in turn might prescribe an antidepressant and sleep aid to help her – even though these types of drugs may also bring nutrient-depleting interactions.

Drugs remain a steady core in Western medicine – doctors will continue to prescribe them, just as patients continue to request them. So what can patients do about the drug-induced nutrient depletion dilemma? While dietary changes will help, another answer is so obvious, it may come as a surprise: “Supplements are absolutely the solution,” Pelton emphatically states. “In most



Nutrient Replenishment Guide



[DRUG TYPE]	[GENERIC EXAMPLES]
ACE Inhibitors¹⁻⁴	Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolapril
Antibiotics⁵⁻¹⁰	Aminoglycosides, Carbapenems, Cephalosporins, Fluoroquinolones, Glycylcycline, Monobactam, Penicillins, Polypeptides, Sulfonamides, Tetracyclines
Anticonvulsants¹¹⁻¹⁷	Primidone, Phenytoin, Carbamazepine, Valproic Acid
Antidepressants: Selective Serotonin reuptake Inhibitors (SSRIs)¹⁸⁻²²	Fluoxetine, Sertraline, Paroxetine
Anti-Hyperglycemic²³⁻²⁸	Biguanides, Sulfonylureas, Meglitinides, Thiazolidinediones, Alpha-glucosidase inhibitors, Dipeptidyl peptidase-4 inhibitors, Glucagon-like peptide agonists
Benzodiazepines²⁹	Alprazolam, Chlordiazepoxide, Clonazepam, Clorazepate, Diazepam, Lorazepam, Oxazepam
Beta-Blockers³⁰⁻³²	Acebutolol, Atenolol, Betaxolol, Bisoprolol, Carteolol, Metoprolol, Nadolol, Penbutolol, Pindolol, Propranolol, Timolol
Bisphosphonate^{33, 34}	Alendronate, Risedronate, Ibandronate, Zoledronic Acid
Bronchodilators³⁵⁻³⁷	Theophylline, Albuterol, Levalbuterol, Pirbuterol, Formoterol, Salmeterol
Calcium Channel Blockers²⁹	Amlodipine, Felodipine, Isradipine, Nifedipine, Nisoldipine, Verapamil
Corticosteroids³⁸⁻⁴³	Prednisone, Dexamethasone, Triamcinolone, Betamethasone, Beclomethasone, Flunisolide, Fluticasone
Diuretics⁴⁴⁻⁵¹	Bumetanide, Ethacrynic Acid, Furosemide, Torsemide, Amiloride, Eplerenone, Spironolactone, Triamterene
Non Steroidal Anti-Inflammatories (NSAIDs), including Cox-2 Inhibitors⁵²⁻⁵⁶	Naproxen, Ibuprofen, Ketoprofen, Celecoxib, Aspirin
Oral Contraceptives⁵⁷⁻⁶⁷	Ortho Tri-cyclen
Proton Pump Inhibitors & H-2 Blockers (Over the Counter)⁶⁸⁻⁷¹	Lansoprazole, Omeprazole, Pantoprazole, Rabeprazole, Esomeprazole, Cimetidine, Famotidine, Nizatidine, Ranitidine
Statins (HMG-CoA Reductase Inhibitors)⁷²⁻⁷⁵	Atorvastatin, Fluvastatin, Lovastatin, Pravastatin, Rosuvastatin, Simvastatin

[¹⁻⁷⁵For a list of all references used in creating this chart, please visit www.vibrantlifepublishing.com or call 1-877-778-5178.]

Before you can replenish what nutrients may be depleted by prescription drugs, it helps to take a quick inventory of which medications you use. Check this handy *Rx Complement* pull-out reference chart to get an idea of possible nutritional interactions that may be associated with some of America's most commonly prescribed drugs.

[PRESCRIBED FOR]	[POTENTIAL NUTRIENT DEPLETIONS]
High Blood Pressure, Coronary Artery Disease, Diabetes, Heart Attacks, Heart Failure, Migraines, Scleroderma, Some Kidney Diseases	Sodium, Zinc
Bacterial Infections	Calcium, Magnesium, Potassium, Vitamin K, Folic Acid, B Vitamins, Inositol, Friendly Intestinal Flora
Seizures, Neuropathic Pain, Migraines, Bipolarism, Mood Disorders	Biotin, Folic Acid, Riboflavin, Vitamin A, Thiamin, Vitamin B12, Vitamin B6, Vitamin C, Vitamin D
Depression	Melatonin, Folic Acid, Sodium
Pre-Diabetes, Diabetes	Folic Acid, Vitamin B12, Coenzyme Q10
Anxiety, Panic Disorders, Phobic Disorders	Melatonin
High Blood Pressure, Heart Failure, Angina, Heart Attacks, Arrhythmia	Coenzyme Q10, Chromium, Melatonin
Osteoporosis	Calcium, Phosphorous, Magnesium
Asthma, Bronchitis (chronic), Emphysema	Potassium
High Blood Pressure, Heart Disease, Arrhythmia	Potassium
Autoimmune Conditions, Rheumatic Conditions, Asthma, Dermatologic Problems, Allergic Conditions	Calcium, Folic Acid, Magnesium, Potassium, Selenium, Vitamin C, Vitamin D, Zinc
High Blood Pressure	Magnesium, Iron, Vitamin C, Potassium, Zinc, Thiamine, Vitamin B6, Folic Acid
Pain, Inflammation, Arthritic Conditions	Folic Acid, Iron, Potassium, Vitamin C, Sodium
Birth Control	B Vitamins, Vitamin C, Zinc, Folic Acid, Selenium, Trace Minerals
Ulcers, GERD, Acid Reflux	Vitamin B1, Vitamin B12, Vitamin D, Calcium, Iron, Zinc, Folic Acid
High Cholesterol, Heart Disease	Coenzyme Q10

PLEASE NOTE: This chart represents only possible drug-induced nutrient depletions that have been suggested by ongoing clinical studies. As such, this chart should be used as a very basic general starting point for patients who wish to gain an idea of how their prescription medications might be interacting with their nutrient levels. Only generic drugs are mentioned in this chart; these names are used to provide an idea of which types of drugs may be implicated in potential nutrient depletion. Patients should always consult their qualified healthcare practitioner with questions about drug interactions with nutrients.

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