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Nutrient depletions associated with common pharmaceuticals

The chart below primarily includes drug-nutrient depletions for which evidence from systematic reviews, meta-analyses, and randomized, double-blind, placebo-controlled, or randomized controlled human trials were available. The 21 pharmaceuticals included in this table are among the top-selling medications in the United States.

For an explanation of the classes of evidence, please see the Rating Scales at **fullscript.com/hcp/evidence-based-decision-support.**

Pharmaceutical	Class of drug	Nutrient depleted	Recommended dosage	Class of evidence
Acetaminophen/ hydrocodone Vicodin, Norco	Pain Narcotic, anti-Inflammatory	Glutathione	N-acetyl-cysteine: (FDA-approved protocol) Loading phase: 0.14 to 0.16 g/kg up to 17 doses as effervescent tablets Maintenance dose: 0.069 to 0.083 g/kg as effervescent tablets	В
Albuterol Ventolin, Proventil	Breathing Bronchodilator	No significant depletions confirmed.	n/a	n/a
Alprazolam Xanax, Niravam	Anxiety, panic Benzodiazepines	No significant depletions confirmed.	n/a	n/a
Amlodipine Norvasc	Blood pressure Calcium channel blocker	No significant depletions confirmed.	n/a	n/a
Amoxicillin Amoxil, Moxatag, Larotid	Antibiotic Penicillin-type	Microflora	Microflora: 5 Billion CFU b.i.d. as <i>B. bifidum</i> W23, <i>B. lactis</i> W18, <i>B. longum</i> W51, <i>E. faecium</i> W54, <i>L. acidophilus</i> W37 and W55, <i>L. paracasei</i> W72, <i>L. plantarum</i> W62, <i>L. rhamnosus</i> W71, and <i>L. salivarius</i> W24 for 2 weeks during and after 1 week of 500 mg b.i.d. of amoxicillin therapy. Separate antibiotic and probiotic administration by at least 2 hours	C

VEXA Fullscript Nutrient depletions associated with common pharmaceuticals

Pharmaceutical	Class of drug	Nutrient depleted	Recommended dosage	Class of evidence
Amoxicillin- clavulanate Augmentin, Amoclan	Antibiotic Penicillin-type/ beta-lactamase inhibitors	Microflora	Microflora: 5 Billion CFU q.d. as L. paracasei CRL-431, B. lactis BB-12, and <i>S.</i> <i>thermophilus</i> TH-4 for 1 month; or 20 billion CFU as B. BB-02, <i>B. lactis</i> Bl-04 and Bi-07, <i>L. acidophilus</i> NCFM, and <i>L.</i> <i>paracasei</i> LPC-37 for 3 weeks; or 25 billion CFU q.d. as <i>L. acidophilus</i> ATCC 700396 and <i>B. animalis</i> ssp. <i>lactis</i> ATCC SD5220 for 2 weeks; or 500 mg b.l.d. for 2 weeks as <i>S. boulardii</i> during and after 1 week of 1 g amoxicillin- clavulanate therapy	В
Atenolol Tenormin	Blood pressure, angina, migraine Beta-blockers	Zinc	Zinc: 20-30 mg (mild), 40-50 mg (moderate- severe) elemental zinc from zinc citrate or zinc gluconate q.d. for 6 months	A
		Melatonin	Melatonin: 2.5-5 mg q.d. one-hour before bed during ongoing 100 mg atenolol therapy	В
Atorvastatin Lipitor	Cholesterol Statin	Coenzyme Q10	CoQ10: 50–200 mg q.d. ongoing with 10 mg atorvastatin therapy	В
Citalopram Celexa	Antidepressant Selective-serotonin reuptake inhibitors (SSRI)	Sodium	Sodium: *Emerg.: 100 ml (oral) or 3% saline (i.v.)	А
		Melatonin	Melatonin: 2 mg q.d. one-hour before bed during ongoing 20-30 mg citalopram therapy	С
Fluticasone Flovent, Flonase	Asthma, rhinitis, allergy Glucocorticoids	No significant depletions confirmed.	n/a	n/a
Furosemide Lasix, Furocot	Blood pressure, edema Loop diuretics	Calcium	Calcium: 500-1000 mg of elemental Ca t.i.d. from Ca carbonate or Ca citrate and up to 2000 mg t.i.d. as needed *Emerg.: 100-200 mg (i.v.)	с

Pharmaceutical	Class of drug	Nutrient depleted	Recommended dosage	Class of evidence
Furosemide Lasix, Furocot (cont.)	Blood pressure, edema Loop diuretics	Magnesium	Magnesium: 300 mg q.d. as Mg citrate during > 80 mg furosemide therapy	с
		Pyridoxine (B6)	Pyridoxine (B6): 25-50 mg q.d. as pyridoxine hydrochloride	с
		Sodium	Sodium: *Emerg.: 100 ml (oral) or 3% saline (i.v.)	с
		Thiamin (B1)	Thiamin (B1): 100 mg b.i.d. (i.v.) for 2 days, orally for 1 week and 200 mg long term during 80–230 mg furosemide treatment	с
		Vitamin C	Vitamin C: 200-500 mg q.d.	с
		Zinc	Zinc: 20-30 mg (mild), 40-50 mg (moder- ate-severe) elemental zinc from zinc citrate or zinc gluconate q.d. for 6 months	с
Gabapentin Neurontin, Neuraptine	Neuropathy, pain	Folic acid	Folic acid: 400 mcg q.d. (RDA)*	В
Hydro- chlorothiazide Apo-Hydro	Blood pressure, edema Thiazide diuretics	Potassium	Potassium: ~780-1560 mg (20-40 mmol) q.d. as potassium chloride or potassium magnesium citrate during 50 mg hydrochlorothiazide treatment	A
		Sodium	Sodium: *Emerg.: 100 ml (oral) or 3% saline (i.v.)	A
		Zinc	Zinc: 20–30 mg (mild), 40–50 mg (moder- ate-severe) elemental zinc from zinc citrate or zinc gluconate q.d. for 6 months	А
		Magnesium	Magnesium: 500–600 mg q.d. as magnesium citrate during 25–50 mg hydrochlorothiazide therapy	В
		Chloride	Chloride: *Emerg.: 0.9% saline (i.v.)	С
		Folate	Folate: 1–5 mg q.d. as folic acid	с

Vertical Nutrient depletions associated with common pharmaceuticals

Pharmaceutical	Class of drug	Nutrient depleted	Recommended dosage	Class of evidence
Insulin glargine injection Lantus Solostar	Diabetes Insulin analogue	Magnesium	Magnesium: 336 mg elemental magnesium from Mg-l-lactate q.d. for 3 months during insulin therapy	В
Levothyroxine Levothroid, Synthroid	Thyroid Synthetic thyroxine	No significant depletions confirmed.	n/a	n/a
Lisinopril Prinivil, Zestril	Blood pressure ACE inhibitor	Zinc	Zinc: 11 mg q.d. for men and 8 mg q.d. for women (RDA)*	A
Cozaar Ang	Blood pressure Angiotensin receptor blockers	Zinc	Zinc: 20-30 mg (mild), 40-50 mg (moder- ate-severe) elemental zinc from zinc citrate or zinc gluconate q.d. for 6 months	A
		Calcium	Calcium: 500-1000 mg of elemental Ca t.i.d. from Ca carbonate or Ca citrate and up to 2000 mg t.i.d. as needed *Emerg.: 100-200 mg (i.v.)	С
		Chloride	Chloride: *Emerg.: 0.9% saline (i.v.)	с
		Magnesium	Magnesium: 300-600 mg q.d. as Mag citrate	с
		Sodium	Sodium: *Emerg.: 100ml, 3% saline (i.v.)	С
Metformin Glucophage XL, Gluformin	Diabetes (biguanide) Hepatic glucose reducer	Folate	Folate: 5 mg q.d. for 8 weeks during metformin therapy	В
		Vitamin B12	Vitamin B12: 1000 mcg q.d. as sublingual methylcobal- amin during metformin therapy	В
Metoprolol Lopressor, Toprol-XL	Blood pressure Beta-blocker	No significant depletions confirmed. See white paper for details.	n/a	n/a

Solution Fullscript Nutrient depletions associated with common pharmaceuticals

Pharmaceutical	Class of drug	Nutrient depleted	Recommended dosage	Class of evidence
Omeprazole Prilosec, Zegerid	Acid reflux Proton pump inhibitor	Magnesium	Magnesium: 250-300 mg q.d. as Mag citrate	А
	Innibitor	Vitamin B12	Vitamin B12: 1000–2000 mcg q.d. as sublingual methylcobalamin	с
		Calcium	Calcium: 500–1000 mg elemental calcium t.i.d. from Ca carbonate or Ca citrate and up to 2000 mg t.i.d. as needed	с
		Iron	Iron: 105–210 mg elemental iron q.d. from ferrous sulfate, fumarate, or gluconate	С
Rosuvastatin Crestor	Cholesterol Statin	Coenzyme Q10	CoQ10: 50-200 mg q.d. ongoing with statin therapy	A
Sertraline Zoloft	Antidepressant Selective-serotonin reuptake inhibitors (SSRI)	Sodium	Sodium: *Emerg.: 100 ml (oral) or 3% saline (i.v.)	A
Simvastatin Zocor	Cholesterol Statin	Coenzyme Q10	Coenzyme Q10: 100–150 mg q.d as ubiquinol during 20 mg simvastatin treatment	A
		β -carotene	β -carotene: 30 mg q.d for 5 weeks	В
		Vitamin E	Vitamin E: 670mg (1000 IU) q.d as d-alpha tocopherol during 10-40 mg simvastatin	В
		Glutathione	Glutathione: 500-1000 mg liposomal GSH, or 150 mg t.i.d as sublingual GSH for 2-3 weeks	с

Note: The information provided in this chart is based on a review of literature available at the time of publication. While the content is considered to be accurate at the time of publication, new or updated research released after the publication date may impact the accuracy of the information. Please use your discretion when using this resource.
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