

Drug and Nutrient Interaction

Drugs and nutrients (both in food and in supplements) can interact with each other. It is always important to read the documentation that comes with each prescription. The table below addresses some of the drug-nutrient interactions possible but it does not address if you are taking more than one drug nor does it cover all possible interactions. This is just a short list for your health prevention.

If you see in the list below a drug you are currently taking and it lists a nutrient deficiency may be caused by taking this drug then it would be advised to consult your physician or nutritionists about the advantages to adding a supplement or the correct foods to make-up for this deficiency.

*The information contained here is for educational purposes only and is not intended to replace professional medical care or advice. Consult your physician before making any changes.

For further reading see these articles on the DesignedHealthyLiving.com website:

Safe Supplementing

A guide to understand the function and use of certain vitamins and minerals along with a list of toxicity and adverse effects.

Savoring the Senior Years, Enjoying the Life You Dreamed About

Start each day preparing for a future of pleasure. This guide will give you the basics and advanced plan for supplementing in the senior years.

<i>Specified Drug</i>	<i>Nutrient</i>	<i>Interaction</i>
5-Fluorouracil	Niacin Thiamin Iron	Long-term therapy has resulted in niacin def. Decreases thiamin. May decrease iron absorption.
Adriamycin	Riboflavin	May inhibit riboflavin.
Alcohol	Vitamin A B6	Chronic consumption of alcohol increases risk of vit. A induced toxicity. Reduces B6.
Allopurinol	Iron	May increase iron storage in the liver. Should not be used in combination with iron supplements.
Aspirin	Vitamins C, K and E	High doses of aspirin increases

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		loss of vitamin C. May decrease vit. K. High doses of vitamin E may increase the effectiveness of antiplatelet effects.
Calcitrol	Phosphorus	High doses of calcitrol and some vit. D may cause hyperphosphatemia
Chloramphenicol	B 12	May decrease the absorption of food-bound B12
Cholestyramine and colestipol	Most vitamins and minerals	May decrease vit/min absorption when taken together.
Anti-inflammatory Corticosteroids: prednisone, decadron, medrol	Calcium, D, Potassium, selenium	These drugs reduce levels of D and decrease absorption of Calcium resulting in bone loss and skeletal problems.
Gout medication: Colchicine, Benemid	Beta-carotene, folic acid, B2, D, potassium, sodium, B12	Inhibits absorbing of all these nutrients. Causes GI problems, plus weakness and peripheral neuritis.
NSAIDS Indomethacin, indocin	C, folic acid, amino acids, iron	Decreases absorption, causes iron loss due to blood loss.
Non-selective NSAIDS Ibuprofen, Naprosyn, clinoril	Folic acid	Long term use could lead to anemia, increased incidence of birth defects, cervical dysplasia, and high homocysteine. May decrease the absorption of food-bound B12.
Cycloserine	B6	May cause functional vit. B6 def.
Anti-arrhythmia	Calcium	High doses of calcium may increase the risk of arrhythmia
Digoxin	Magnesium	Taken with magnesium may decrease the absorption of digoxin.
Beta-blockers	CoQ10	Decreases activity of CoQ10 enzymes which leads to heart, blood pressure and immune system related problems.
DTPA	Zinc	Treatment with DTPA has resulted in severe zinc def.
Isoniazid	Niacin Vitamin B6 Vitamin E Vitamin K	Niacin supplementation is recommended during long-term treatment. May cause functional vit. B6 def. May decrease absorption Vit. E.

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Anti-fungal Ketoconazole	Vitamin D	May increase risk of vit. K def. May decrease blood levels of vit. D.
Levodopa	Vitamin B6 Iron	May cause functional B6 def. High doses of B6 may decrease the efficacy of lecodopa. Taken with iron may decrease efficacy of levodopa.
Lithium	Iodine	Taking iron supplements at the same time may decrease the effectiveness.
Anti-diabetic drugs Metformin	CoQ10 B12 B2	Leads to CoQ10 def. Decreases B12 absorption. Need to take B12 with milk or calcium.
Methotrexate	Folic acid	Requires folic acid supplementation.
Methyldopa	Iron	Taken with iron reduces effectiveness.
Neomycin	B12	Decreases food-bound B12 but not supplemental. Need to supplement.
Nitrous oxide	B12	Results in B12 def.
Olestra	Fat-soluble vitamins	Inhibits absorption of A, D, E, and K.
Weight Loss drugs Orlistat – Xenical Meridia	A, D, E, K Tyrosine, Tryptophan	Decreases absorption take supplements 2 hours away from eating. Inhibition of serotonin, norepinephrine and dopamine.
Pyrimethamine	Folic acid	Increase need for folic acid.
Quinocrine	Riboflavin	Inhibits riboflavin action.
Rifampin	K	Increases risk of K def.
Sucralfdate	E	Decreases vit. E absorption.
Anti-rheumatic Sulfasalazine	Folic acid K	Increases need for folic acid. Decreases vita K.
Anti-rheumatic Penicillamine	B6 Copper Iron Magnesium Zinc	Causes B6 def. Causes urinary excretion of copper. Taken with iron at same time decrease drug effectiveness. Treatment causes severe zinc def.
Anti-clotting Coumadin Warfarin	C E K	High doses vit. C may decrease anticoagulant effectiveness in a few cases.

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	Iodine Magnesium	High doses of vit. E may increase effects. High intake of dietary or supplemental K may decrease effects. Not to be taken when pregnant due to harm to the baby. Pharmacologic doses of potassium iodide may decrease effectiveness of warfarin. Magnesium-containing antacids may decrease the anticoagulation effectiveness of warfarin.
Anti-asthmatic Theophylline	B6	Causes B6 depletion.
Chemotherapy Anti-proliferative	Most nutrients	Many chemo therapy drugs cause nausea, vomiting and significant damage to gastric and intestinal mucosa. This leads to nutrient depletions.
Anti-bone resorptive Didronel Aredia Fosamax Actonel Skelid	Zinc	When taken together both have reduced absorption.
Laxatives Mineral oil Agoral, haley's MO Feen-A-Mint Correctol Dulcolax	Vitamins A, D, E, K, Beta Carotene Potassium	Inhibits absorption of fat-soluble vitamins. Decreases absorption of potassium.
Psychiatric Medications	Co Q 10 B2 B6	Inhibit necessary enzymes for production of CoQ10. Def. leads to cardiovascular problems. Def. in B2 and 6 leads to skin, neurological and energy problems.
Antacids Prilosec Prevacid Aciphex Tagemet Pepcid Axid Zantac	B12, Calcium, folic acid, D, iron, zinc, protein,	By altering gastric pH these drugs may cause mal-absorption of these nutrients.
		Chronic use can lead to skeletal

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Tums, Maalox, Gaviscon, Mylanta, Roalids, Alka Seltzer		problems due to nutrient depletion.
Anti-biotics – Anti-bacterial Broad-spectrum Tetracycline Clycloserin, Ethionamide, Isoniazid Cephalosporins Fluoroquinolones Bactrim	All B vitamins, Biotin, C, K	The antibiotics kill beneficial bacterial which produces B vitamins. This in turn impairs the immune system. Tetracycline causes mineral depletion. And interferes with B vitamins absorption. Inhibits liver function that can result in vitamin K def. Taking zinc with fluoro. Decreases absorption of both.

Information compiled from:

Laboratory Evaluations for Integrative and Functional Medicine, 2nd Edition, Richard Lord and J. Alexander Bralley, editors. 2008 Metametrix Institute.