

Drug and Supplement Interactions

With the billion-dollar supplement industry today and the ever-changing world of prescription medications, it is essential to be up-to-date with potentially harmful interactions between certain drugs and vitamin or mineral supplements. There are some combinations of drugs and vitamin/mineral supplements that can alter the absorption or utilization of either drug or supplement or may even negate the function of the drug or the nutrient altogether. It is always important to consult with a Registered Dietitian, prescribing physician and pharmacist when beginning on new medications or when thinking about adding any kind of vitamin or mineral supplement on a regular basis. A qualified health care professional can offer sound advice about potential interactions.

Keeping an updated list of all the medications and supplements taken regularly - and on an occasional basis - can be helpful when visiting a health care provider. The information is useful to the physician, registered dietitian and pharmacist in becoming even more familiar with a patient's overall health picture and in designing a health plan that is best suited to the patient.

Below are a few of the common medications by drug name or type with a brief explanation of potential harmful interactions with certain vitamin and mineral supplements. This list here is by no means exhaustive and since there are so many new drugs released each year, it is essential to always check first. The information below allows you to quickly view some of the most common negative interactions between drugs and supplements and prepares you to ask appropriate questions to your health care professional and Registered Dietitian.

Whenever unsure about potential interactions, do not begin a new supplement before consulting with a qualified health care provider. To read more and receive the most up-to-date information on *specific* drugs and supplements, please refer to American Specialty Health Network's PDR Micromedex database (www.healthyroads.com) or a trusted health care provider with expertise in this area.

Drug	Vitamin/Mineral	Potential Interaction(s)
Alcohol (chronic use/abuse)	Thiamin, riboflavin, niacin, pyridoxine (B ₆), folic acid, calcium, iron, zinc, magnesium, selenium, B ₁₂ , C, A, D	Alcohol diminishes stores and interferes with the absorption of these.
	Biotin	Alcohol impairs body ability to absorb biotin.
Antacids with aluminum	Calcium in bone	If used regularly,

Antacids with aluminum or magnesium	Vitamin C	aluminum-containing antacids may interfere with calcium status of the bone. Vitamin C increases the body's ability to absorb aluminum which is toxic to the body. Therefore, one should not take Vitamin C supplements at same time as any aluminum-containing medications.
	Phosphorus	Antacids containing magnesium or aluminum can interfere with ability to absorb phosphorus.
Antibiotics	Biotin	Antibiotics increase the need for Biotin by killing intestinal bacteria that normally produce biotin for the body.
Penicillin, Neomycin	Calcium	Penicillin and neomycin may enhance intestinal absorption of Calcium.
Anti-convulsants	Calcium	Anti-convulsants may decrease the intestinal absorption of calcium.
Aspirin and other NSAIDs	Vitamin C	Vitamin C may increase bleeding and intestinal irritation associated with aspirin.
	Vitamin C, folic acid and iron	Aspirin may interfere with absorption of these.
Blood thinners/Anti-coagulants (Coumadin)	Vitamin K	Vitamin K is a coagulant and therefore would counteract the drug. Care in maintaining regular Vitamin K intake.

	Vitamin E	Vitamin E increases bleeding even more than drug alone. Alters balance effect of drug dose.
Caffeine	Potassium, calcium.	Caffeine may cause kidneys to excrete more potassium, magnesium and calcium than normal.
Cholesterol-lowering drugs		
Questran	Vitamins A, B ₁₂ , D, E, K, folic acid and calcium	Questran may interfere with normal level of these vitamins and minerals.
Clofibrate (Atromid-S)	Vitamin B ₁₂ and iron	Clofibrate may interfere with normal levels of these.
Colestipol (Colestid)	Vitamins A, D, E, K, folic acid and calcium	Colestipol may interfere with the levels of these.
Cortisol (Cortisones and its relatives)	Calcium	These drugs may decrease the intestinal absorption of calcium.
Diuretics (non potassium-sparing)	Potassium	Monitoring by physician and supplementation of potassium according to direction.
Hydrochlorothiazide and Furosemide (Lasix)	Potassium, magnesium, and zinc.	These drugs may interfere with vitamin/mineral status of these and lead to deficiencies.
Fiber (Metamucil, bulk laxatives to lower cholesterol, to improve blood sugar control and for weight loss.)	Zinc, iron, manganese, copper, beta-carotene, Riboflavin (B2)	Long term use of bulk fiber supplements may negatively affect the normal levels of these vitamins and minerals.
Insulin	Vitamin E	Insulin requirements may

		decrease during supplementation with Vitamin E succinate. Diabetics must monitor blood sugar closely to regulate insulin dose according to a planned reduction schedule according to their physician's recommendation.
Laxatives (see Fiber)		
Oral Contraceptives (pill)	Folic acid	Pill may lead to intestinal malabsorption of this vitamin. Person taking the pill may become deficient over time.
	Vitamin E	Pill may interfere with Vitamin E activity. General recommendation is that they should be taken separately by several hours.
	Pyridoxine (B ₆)	Pill may interfere with vitamin status.
Parkinson's Disease drug: Levodopa	Pyridoxine (B ₆)	Vitamin B ₆ reduces the therapeutic effect of this drug by inactivating the drug. Supplemental B ₆ is not advised when on this drug.
Potassium-sparing Blood pressure/heart medications (Dyazide, Maxzide, ACE inhibitors like Zestril, Capoten and Vasotec)	Potassium	Certain diuretic and heart/blood pressure drugs are designed to "spare" the loss of potassium normally seen with their use. Therefore, it is important NOT to take extra potassium or may develop toxic symptoms. (Dyazide, Maxzide, ACE inhibitors like Zestril, Capoten and Vasotec)

Seizure Medications Phenytoin (Dilantin)	Folic Acid	Seizure medications compete with folic acid for absorption into the body. Each tries to prevent your intestine from properly absorbing the other. The two also compete to enter the brain cells, which can alter the amount of Dilantin that gets to the site of action.
Steroids	Calcium	Chronic use of cortisone-type steroids can lead to breakdown of protein in bone and subsequent osteoporosis-type problems. Supplemental calcium may be desirable, consult qualified health care provider.
Sunscreens	Vitamin D	Sunscreens with SPF 8 block the absorption of Vitamin D from the sun completely. With increased use of sunscreen (an important and good practice), attention should be paid to Vitamin D status. Consideration is especially important in elderly individuals with very limited exposure to sun and deficient diets.
Thyroid Hormones	Calcium	Thyroid hormones may decrease the intestinal absorption of calcium.

Remember, it is always important to consult a qualified health care provider whenever making changes to the dose and timing of any drugs and vitamin or mineral supplements.

References:

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