

# Skeehchoosh

Pequot for Grasses, Herbs, Medicines

PEQUOT PHARMACEUTICAL NETWORK • PHARMACY NEWSLETTER

## Drug Induced Nutrient Depletion

Nutrient depletions can occur from many pharmacologic treatments, and patients who take more medications may be more likely to have reduced levels of certain nutrients. Patients may require supplementation to avoid deficiencies. **CONSULT WITH YOUR DOCTOR to determine if you need additional supplementation.**

NUTRIENT	CAUSATIVE MEDICATION	
<b>CALCIUM</b> - Depletion can lead to problems with bone formation and increased fracture risk	- Anticonvulsants - Corticosteroids - Loop diuretics	Certain anticonvulsants make vitamin D inactive. This can slow calcium absorption from the gut. Long-term use of corticosteroids decreases absorption and increases excretion of calcium. Loop diuretics, especially in high doses, can increase calcium excretion.
<b>FOLIC ACID</b> - Role in DNA synthesis and cellular metabolism	- Anticonvulsants	Certain anticonvulsants might reduce absorption and increase excretion of folic acid. Folic acid, in high doses, can reduce levels of phenytoin and increase the risk of seizures.
<b>MAGNESIUM</b> - Important for normal bone structure and plays a role in many cellular reactions in the body	- H2 Blockers - Proton Pump Inhibitors (PPI) - Loop diuretics - Thiazide diuretics	Diuretics, especially loop diuretics, increase magnesium excretion in the urine. PPIs reduce absorption of magnesium, especially when used for longer than one year.
<b>POTASSIUM</b> - Important for muscle contraction, heart function and various enzymatic reactions	- Corticosteroids - Loop diuretics - Thiazide diuretics	Corticosteroids cause sodium retention and potassium depletion. Diuretics increase potassium excretion in the urine.
<b>THIAMINE (Vitamin B1)</b> - Role in energy metabolism, growth, development, and function of cells	- Loop diuretics - Thiazide diuretics	Diuretics, especially loop diuretics, increase thiamine excretion in the urine.
<b>COBALAMIN (Vitamin B12)</b> - Role in development and function of the central nervous system, blood cell formation, and DNA synthesis	- Metformin - H2 Blockers - Proton Pump Inhibitors (PPI)	Long term use and higher doses of metformin can reduce vitamin B12 absorption. H2-blockers and PPIs can reduce absorption of dietary vitamin B12. This is unlikely to be a problem unless H2-blockers and PPIs are used chronically (2 years or more) and in high doses.

### Examples of Causative Medications in above categories (List is not exhaustive)

**Anticonvulsants:** phenytoin, phenobarbital, carbamazepine

**Corticosteroids:** hydrocortisone, prednisone

**H2 Blockers:** cimetidine, famotidine

**Loop Diuretics:** bumetanide, furosemide, torsemide

**Proton Pump Inhibitors (PPI):** omeprazole, pantoprazole, lansoprazole

**Thiazide Diuretics:** chlorthalidone, hydrochlorothiazide

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<https://www.uspharmacist.com/article/drug-induced-nutrient-depletions-what-pharmacists-need-to-know>  
<https://naturalmedicines.therapeuticresearch.com/tools/charts/drug-induced-nutrient-depletions.aspx>

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