

While pharmaceuticals have lifesaving benefits, many of these medications can have serious side effects, ranging from cardiac arrest to suicide.

Many suffer from an almost completely ignored epidemic of drug-induced nutrient depletion that can cause grave health problems. A large number of pharmaceutical side effects are the direct result of these drug-induced nutrient deficiencies. In other words, a pharmaceutical medicine "robs" you of one or more nutrients or other helpful substances, and this lack of nutrients causes additional side effects. In a sense, the medicine acts as an "anti-vitamin pill," taking away the substances you need for good health. Thus, nutrient depletion caused by the medicines, rather than the medicines themselves, is often directly responsible for many of the side effects associated with pharmaceuticals.

Among the most common medicines linked to nutrient depletion are oral contraceptives, cholesterol-lowering statins, and antibiotics. These and many other over-the-counter and prescription medications can interfere with your body's ability to digest, absorb, synthesise, or make use of certain nutrients, leading to nutrient deficiency-related "side effects."

The only solution to averting pharmaceutical-induced nutritional deficiencies is to replace the depleted nutrients through nutritional supplements, dietary sources, or both. This chart summarises some commonly prescribed medicines, along with the vitamins, minerals, and other nutraceuticals they are most likely to deplete, as well as which Solal products should be used at the same time as pharmaceutical medicines, to prevent these depletions.

### Why Use Solal products to correct nutrient depletions?

### Corrective dosages, not RDA amounts:

- ▶ To correct passive deficiencies caused by lack of dietary intake, merely taking RDA (recommended dietary allowance) amounts may be adequate. HOWEVER, in active deficiencies, where a medicine actively and continuously flushes nutrients from the body, higher-than-RDA-doses are required to correct deficiencies of nutrients being actively flushed from the body. SOLAL products supply optimal higher-than-RDA, scientifically researched doses of vitamins, minerals and nutraceuticals.
- ▶ SOLAL does not compromise on doses of expensive ingredients, eg Co-enzyme Q10. The doses in SOLAL products match the doses shown to be effective in scientific studies.

### Safest forms:

- ▶ At low doses, the form of a vitamin or mineral is unlikely to make a difference. However at higher doses the form makes a significant difference.
- ▶ An example is Vitamin B12. There are 2 forms, cyanocobalamin and methylcobalamin. At 1-2ug RDA doses the cyanocobalamin form can be used. However the optimal corrective amount of 1000-2000ug of cyanocobalamin metabolises to cobalamin and cyanide, which blocks enzymatic functions. The methylcobalamin forms cobalamin with no cyanide, and donates a methyl group which is useful for healthy liver function. Therefore SOLAL uses methylcobalamin instead of cyanocobalamin.
- ▶ There are many other examples such as that SOLAL only uses chelated amino acid forms of minerals, which are not only more effective, but do not cause the safety risks (such as slightly elevated cancer risk) associated with inorganic mineral salt forms of minerals.

### Most researched and effective forms and doses:

- ▶ SOLAL products contain doses, extracts and forms proven effective in studies.

Pharmaceutical Medicine	Deficiency caused	Solal product to correct deficiency
<b>ACE inhibitors</b> (eg Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Erbumine, Quinapril, Ramipril, Spirapril, Trandolapril)	Zinc	Multi-mineral or ACES-Plus Anti-oxidant
<b>Alendronate (including all bisphosphonates)</b>	Calcium	Calcium Glycinate with vitamin D3
<b>Antacids</b> (Aluminium salts)	Copper & Zinc Magnesium & Calcium Iron	Multi Mineral Bio-Calmag Iron-Plus (take iron and calcium 3 or more hours apart)
<b>Antacids</b> (Calcium salts)	Copper & Zinc Magnesium Iron	Multi Mineral Magnesium Glycinate Iron-Plus (take iron and calcium 3 or more hours apart)
<b>Antacids</b> (Magnesium salts)	Copper & Zinc Calcium Iron	Multi Mineral Calcium Glycinate with vitamin D3 Iron-Plus (take iron and calcium 3 or more hours apart)
<b>Antibiotics: AMINOGLYCOSIDES</b> (eg Gentamicin, Neomycin, Tobramycin)	Calcium & Magnesium Iron Lactobacillus (Probiotics) Vitamin K Vitamin A & B12	Bio-Calmag Iron-Plus (take iron and calcium 3 or more hours apart) Enzyme Prebiotic Probiotic Vitamin K1 Plus 3-Per-Day
<b>Antibiotics: CEPHALOSPORINS</b> (eg Cefaclor, Cefprozil, Cefuroxime, Loracarbef) -also <b>MACROLIDES</b> (Erythromycin, Azithromycin, Clarithromycin) -also <b>PENICILLINS</b> (eg Amoxicillin, Ampicillin, Flucloxacillin, Pivampicillin) -also <b>QUINOLONES</b> (eg Ciprofloxacin, Gatifloxacin, Levofloxacin, Lomefloxacin, Moxifloxacin, Nalidixic acid, Norfloxacin, Ofloxacin, Sparfloxacin, Trovafloxacin) -also <b>SULFA DRUGS</b> (eg Co-trimoxazole, Sulfamethoxazole, Trimethoprim) -also <b>TETRACYCLINES</b> (Tetracycline, Doxycycline, Minocycline)	Lactobacillus (Probiotics)	Enzyme Prebiotic Probiotic
<b>Antibiotic: ISONIAZID</b> (anti-TB medication)	Vitamin B2, B12, folic acid, biotin	Super Mega-B
<b>Anti-inflammatories: NSAIDs</b> (eg diclofenac, etodolac, fenoprofen, ibuprofen, indomethacin, ketoprofen, mefenamic acid, melofenamate, nabumetone, naproxen, oxaprozin, piroxicam, sulindac, tolmetin)	Iron & folic acid Zinc Melatonin	Iron-Plus Multi Mineral Melatonin or Melatonin Slow Release
<b>Anti-retrovirals: REVERSE TRANSCRIPTASE INHIBITORS</b> [eg Lamivudine (3TC), Didanosine (ddI), Zalcitabine (ddC), Stavudine (d4T), Ribavirin, Zidovudine (AZT), Abacavir (ABC), Emtricitabine (FTC), Tenofovir, Adefovir, Efavirenz, Nevirapine, Delavirdine]	Copper & Zinc	Multi Mineral
<b>Aspirin</b>	Iron, folic acid & vitamin C	Iron-Plus
<b>Barbiturates</b> (eg Phenobarbital)	Calcium & Vitamin D Folic acid & Vitamin B12	Calcium Glycinate with vitamin D3 Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Betablockers</b> (eg Acebutolol, Atenolol, Betaxolol, Bisoprolol, Carteolol, Celiprolol, Esmolol, Labetalol, Levobetaxolol, Levobunolol, Metipranolol, Metoprolol, Nadolol, Penbutolol, Pindolol, Propranolol, Sotalol, Timolol)	Melatonin	Melatonin or Melatonin Slow Release
<b>Birth control pill</b> (estrogen/progestin combination) -mono/bi & triphasic (eg Ethinyl estradiol, Desogestrel, Levonorgestrel, Norethindrone, Norgestimate)	Magnesium Zinc Vitamin B2, B6, B12, C & folic acid	Magnesium Glycinate Multi Mineral or ACES-Plus 3-Per-Day
<b>Carbamazepine</b>	Folic acid	Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Cholestyramine &amp; Colestipol</b> (bile sequestrants)	Vitamin A, D, E, B12 & folic acid & betacarotene Vitamin K	3-Per-Day Vitamin K1 Plus
<b>Clonidine</b>	Co-enzyme Q10	Co-enzyme Q10
<b>Corticosteroids</b> (eg prednisone, prednisolone, hydrocortisone, beclometasone, dexamethasone, triamcinolone)	Calcium & Magnesium DHEA Protein Vitamin C, D, B6, B12, folic acid, selenium & zinc Melatonin	Bio-Calmag DHEA (on prescription) Pure Whey Protein Isolate or Whey/Soy 50/50 Protein 3-Per-Day Melatonin or Melatonin Slow Release
<b>Digoxin</b>	Magnesium Vitamin B1	Magnesium Glycinate Super Mega-B or 3-Per-Day
<b>Diuretics [loop]</b> (eg Bumetanide, Ethacrynic acid, Furosemide, Torsemide)	Calcium & Magnesium (however, if this type of diuretic is COMBINED with a potassium sparing diuretic, then a magnesium deficiency will NOT occur. A calcium deficiency IS still likely though). Potassium (however, if this type of diuretic is or COMBINED with a potassium sparing diuretic, then a potassium deficiency will NOT occur). Vitamin B1, B6 & C	Bio-CalMag [Calcium & Magnesium] (however, if this type is combined with a potassium sparing diuretic, then DO NOT supplement with Magnesium: Rather use Calcium Glycinate instead of Bio-CalMag). [SOLAL does not have a potassium supplement - use Plenish-K Slow-K]. However, if this type of diuretic is combined with a potassium sparing diuretic, then DO NOT supplement with Potassium.
<b>Diuretics [Potassium sparing]</b> (eg Amiloride, Triamterene, Spironolactone)	Calcium Folic acid	Calcium Glycinate with vitamin D3 Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Diuretics [Thiazide type]</b> (eg Chlorothiazide, Hydrochlorothiazide, Indapamide, Methyclothiazide, Metolazone)	Co-enzyme Q10 Potassium (however, if this type of diuretic is COMBINED with a potassium sparing diuretic, or an ACE inhibitor, then a potassium deficiency will NOT occur). Magnesium (however, if this type of diuretic is COMBINED with a potassium sparing diuretic, then a magnesium deficiency will NOT occur). Zinc (however, if this type of diuretic is COMBINED with a potassium sparing diuretic, then a zinc deficiency will NOT occur).	Co-enzyme Q10 [SOLAL does not have a potassium supplement - use Plenish-K or Slow-K]. However, if this type of diuretic is combined with a potassium sparing diuretic, or an ACE inhibitor, then DO NOT supplement with Potassium. Magnesium Glycinate (however, if this type of diuretic is combined with a potassium sparing diuretic, then DO NOT supplement with Magnesium supplements).
<b>Fibrate type cholesterol reducing medications</b> (eg Bezafibrate, Ciprofibrate, Clofibrate, Gemfibrozil, Fenofibrate)	Co-enzyme Q10 Vitamin E	Co-enzyme Q10 Vitamin E full spectrum or 3-Per-Day
<b>Histamine H2 blockers</b> (eg Cimetidine, Ranitidine, Famotidine, Nizatidine)	Calcium & Vitamin D Iron, Vitamin B12 & Folic acid Zinc	Calcium Glycinate with vitamin D3 Iron-Plus Multi Mineral
<b>Hydralazine</b>	Co-enzyme Q10 Magnesium Vitamin B6	Co-enzyme Q10 Magnesium Glycinate Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Metformin</b>	Folic acid & Vitamin B12	Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Paracetamol</b>	Glutathione Selenium	N-Acetyl-Cysteine ACES-Plus Anti-oxidant
<b>Phenytoin</b>	Calcium & Vitamin D Vitamin B1, folic acid & biotin	Calcium Glycinate with vitamin D3 Super Mega-B
<b>Proton pump inhibitors</b> (eg Lansoprazole, Omeprazole)	Vitamin B12	Methylcobalamin
<b>Psychotropics: PHENOTHIAZINES</b> (eg Chlorpromazine, Fluphenazine, Mesoridazine, Perphenazine, Prochlorperazine, Thioridazine, Trifluoperazine) -also <b>THIOXANTHINES</b> (eg Chlorprothixene, Flupenthixol, Thiothixene, Zuclopenthixol)	Co-enzyme Q10	Co-enzyme Q10
<b>Sodium bicarbonate</b>	Magnesium Folic acid	Magnesium Glycinate Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Sulfasalazine</b>	Folic acid	Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>SSRI antidepressants</b> (eg Fluoxetine, Sertraline, Paroxetine, Citalopram, Escitalopram, Fluvoxamine)	Melatonin Protein	Melatonin or Melatonin Slow Release Pure Whey Protein Isolate or Whey/Soy 50/50 Protein
<b>Statins (HMG-CoA reductase inhibitors)</b> (eg Atorvastatin, Fluvastatin, Lovastatin, Pravastatin, Simvastatin, Rosuvastatin)	Co-enzyme Q10	Co-enzyme Q10
<b>Sulfonylureas antidiabetic medication</b> (eg Acetohexamide, Chlorpropamide, Gliclazide, Glipizide, Glybenclamide, Glyburide, Tolazamide, Tolbutamide)	Co-enzyme Q10	Co-enzyme Q10
<b>Theophylline &amp; derivatives</b> (eg Theophylline, Aminophylline)	Vitamin B6	Homocysteine Lowering Formula or Super Mega B or 3-Per-Day
<b>Tricyclic antidepressants</b> (eg Amitriptyline, Amoxapine, Clomipramine, Desipramine, Doxepin, Imipramine, Nortriptyline, Protriptyline, Trimipramine)	Co-enzyme Q10 Vitamin B2	Co-enzyme Q10 Super Mega-B or 3-Per-Day
<b>Valproic acid &amp; derivatives</b>	L-Carnitine Copper, Zinc & Selenium Folic acid	L-Carnitine or Acetyl-L-Carnitine Multi Mineral Homocysteine Lowering Formula or Super Mega B or 3-Per-Day