

CONSUMER Health ALERT!



NUTRITIONAL FRONTIERS

BLOOD PRESSURE MEDICATION & MINERAL DEPLETION

Pharmaceutical Treatment of Hypertension

Blood pressure medications, also called anti-hypertensive medications, are prescribed by some doctors to lower blood pressure in people whose blood pressure is elevated, a condition called "hypertension." Antihypertensives work in several different ways.

- Diuretics work to increase urination and flush excess water by acting on the kidneys. Thiazide diuretics include chlorothiazide and hydrochlorothiazide. Potassium-sparing diuretics include spironolactone (Aldactone), eplerenone (Inspra), and triamterine (Dyrenium).
- ACE inhibitors prevent a hormone called Angiotensin II from performing its normal job which is to constrict blood vessels. This allows for more relaxed vessels and a decrease in blood pressure. Examples include captopril (Capoten), lisinopril (Prinivil, Zestril) and ramipril (Altace).
- ARB's or angiotensin antagonist medications, also target Angiotensin II. Examples include losartan (Cozaar), olmesartan (Benicar) and valsartan (Diovan).
- Beta blockers cause the heart to work less hard, reduce heart rate, and reduce heart contractility, thereby reducing blood pressure. Examples include metoprolol (Lopressor, Toprol XL), carvedilol (Coreg), atenolol (Tenormin), propranolol (Inderal), etc.
- Calcium Channel Blockers relax blood vessels and reduce blood pressure by preventing calcium from entering some cells in the heart and vessels. Examples include amlodipine (Norvasc), diltiazem (Cardizem, Dilacor XR) and nifedipine (Adalat, Procardia).
- Renin inhibitors interfere with production of rennin, which is a substance produced by the kidneys that sets off a cascade of steps to increase blood pressure.

Nutrient Depletion

Blood pressure medications can cause depletion of important minerals in the body. The different classes of antihypertensive medications cause different nutrient depletions depending on their mechanism of action. Loop diuretics like furosemide (Lasix) and other potassium-wasting diuretics like bumetanide (Bumex) may deplete calcium, magnesium, phosphorus, potassium, and vitamins B1 B6, and C. ACE inhibitors may deplete zinc. Angiotensin II Receptor Antagonists may deplete calcium, magnesium, zinc, phosphorus, and CoQ10. Thiazide diuretics may deplete some potassium, zinc, and magnesium.

Please note: potassium-sparing diuretics (amiloride, triamterine, spironolactone, eplerenone) can cause an excess of potassium, leading to toxicity.



Frontier Minerals by Nutritional Frontiers provides a balanced multi-mineral formula that contains 9 key minerals in easily assimilate forms



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