



Supplement Overview

By: Michael P. Ciell, R.Ph. - Clinic Director

The three supplements that are required as part of the Ideal Protein Weight Loss Method have been formulated specifically to ensure that the dieter receives the *minimum* daily recommended amounts of essential nutrients based on RDA guidelines for a typically healthy person age 19 to 50. As with the amount of protein in our protocol, it must be stressed that these are the *minimum* amounts required by the body daily and that there is not any amount of nutrient (macro or micro) that would be considered a "high -dose" or hyper amount. Occasionally a dieter may need additional supplementation (due to age or particular medical condition) and that would be addressed under the guidance of his or her medical professional. These supplements are given merely to make up any short coming the dieter may experience while *temporarily* omitting certain food groups (i.e. fruits, dairy products, grains, root vegetables and legumes) from their daily meals while on the weight loss portions of the Ideal Protein Weight-loss Method.

CALCIUM

884 mgs. of elemental calcium is supplied by the daily servings of our three supplements.

600 mgs. in the form of calcium citrate comes from the "**CAL-MAG**".

200 mgs. as calcium carbonate, is supplied by the "**POTASSIUM CALCIUM**".

84 mgs. as calcium citrate is supplied in the "**MULTI - VITA**".

The use of different forms of calcium (or "salts") is a common practice in pharmacy and is usually indicative of a 'higher quality' supplement. Calcium citrate contains less elemental calcium (21% by weight) compared to calcium carbonate (about 40%) but is generally viewed as being more absorbable (bio-available). Calcium carbonate on the other hand is more alkaline than the citrate salt and helps support the body's acid / base balance.

If a person were to have three servings of a high calcium food per day they would be receiving about 900 mgs of elemental calcium. Eight ounces of whole milk provide about 291 mgs, skim milk about 302 and 2% and 1%, 297 and 300 mgs respectively.

An eight ounce glass of calcium fortified orange juice contains roughly the same (about 300 mgs). Cheeses average about 175 mgs per serving (mozzarella, 147, cheddar roughly 200). Eight ounces of yogurt yields about 300 mgs and a cup of ice cream supplies around 160 mgs¹. People on the IDEAL PROTEIN WEIGHT LOSS METHOD will not be eating these foods (while on the weight loss phase) so you see our supplements are merely supplying them with the nutrients they would be getting from these commonly consumed foods.

¹ Drugs.com (an online pharmacy information service). www.drugs.com

IDEAL PROTIEN DIETERS are *required* to eat 4 cups of vegetables, two green salads and one serving of a whole protein food (meat, fish or fowl) per day. These foods will amply supply the remaining calcium and ensure our program adheres to the US and Canadian RDA guidelines.

POTASSIUM

332 mgs. of elemental potassium is supplied in the daily servings of two of our products.

312 mgs. are supplied by the 800 mgs. of potassium bicarbonate in the "**POTASSIUM – CALCIUM**" tablets.

20 mgs. in the form of potassium citrate comes from the "**MULTI-VITA**".

Potassium is an extremely important element or electrolyte in human physiology. It is involved with maintaining proper fluid and mineral balance, cardiac function and nerve transmission. Our bodies exquisitely regulate the amount of potassium in our blood stream and when these controls become compromised (as in disease states like renal failure) the patient generally requires constant medical supervision. A healthy adult usually loses about 2,000mgs of potassium per day (via urine, perspiration and feces) and generally accepted guidelines recommend replacing that amount daily through our foods. These folks could easily take in twice that amount with no ill effects and athletes or people involved in strenuous activity will normally supplement to avoid *becoming hypokalemic* due to increase potassium loss through excessive perspiration.

Again, the Ideal Protein Weight-loss Method focuses on the minimum daily requirements and, because we are not consuming some food groups which are common sources of the daily potassium requirement, we must supplement while on the weight loss phase of the program. For example, a small banana contains 467 mgs of potassium, a third of a cup of raisins 363, one-half of a medium potato (with skin) about 422 mgs, one small orange roughly 240 mgs and one cup of 2% milk 377 mgs. We use our supplements only to replace what we are missing while temporarily giving up some of our common sources of potassium. Remember our dieters are *required* to consume 4 cups of vegetables, two green salads and a portion of whole protein per day. One-half cup of cooked mushrooms contains 277 mgs. of potassium, one cup of cooked asparagus (277), one cup of cooked zucchini or summer squash (346) and one cup of iceberg lettuce (87). Two examples of whole proteins would be: three ounces of baked or broiled salmon contain (319 mgs) while three ounces of roasted turkey (dark meat) have (259 mgs). When we "do the math" we can easily see that our dietary protocol comes in right about "dead-on" to the 2,000 mgs / day (between diet and supplements) that is recommended.

Now the question that always comes up is this: "Yes, but my doctor has already given me a prescription potassium supplement, why do I need to take yours too?" To this I reply: "Your doctor has your serum potassium levels *titrated* to the proper amount. If your "previous" daily diet usually includes a glass of orange juice, a glass of milk, a potato or a banana or many other fruits and dairy products, the answer is *yes, otherwise you will be getting less potassium than your doctor expects and your next blood work-up will likely show a deficiency in this important element!*"

MAGNESIUM

320 mgs. of elemental magnesium are in the daily servings of two of our products.

300 mgs. in the form of magnesium citrate come from the "**CAL – MAG**".

20 mgs. in the same form come from our "**MULTI – VITA**" vitamin.

Magnesium is another extremely important element in our diet. A deficiency in magnesium can increase *aldosterone* (hormone) secretion leading excessive potassium loss. Magnesium is also an alkaline element (as are calcium, potassium and sodium) and plays a role in the body's acid / base balancing. Magnesium is vital to more than 300 biochemical reactions in the body. The ratio of calcium to magnesium is very important, as they physiologically oppose each other in some respects. Calcium can increase muscle tone (i.e. "tighten" muscles) while magnesium "relaxes" them. This is why we often prescribe 'calcium channel blockers' for hypertension – preventing calcium's effects on the muscles of the vascular system relaxes *or dilates* them and the blood pressure (or *peripheral resistance*) goes down. In the bowel, magnesium relaxes the smooth muscles of the digestive tract, allowing for normal peristalsis or "good bowel habits". Too much calcium in relation to magnesium can lead to constipation. This is why it is added to antacids like "**Maalox**" (literally magnesium, aluminum oxide)...aluminum and calcium tend to constipate, and supplying enough magnesium tends to offset this effect. Magnesium is hugely important not only in the body's ability to produce insulin, but also on the sensitivity of the cells' insulin receptors. Type II diabetes and pre-diabetes (a.k.a. *Syndrome X*) are characterized by a lack of sensitivity of the body's insulin receptors, so the pancreas is forced to produce more insulin in an "attempt to slam the receptors" into working. Now here's where it gets doubly bad: insulin tells the body to store magnesium, when the cells "don't listen to insulin" anymore (i.e. are *insulin resistant*) insulin is lost in the urine and the problem gets much worse. There are many studies showing the benefits of adding magnesium supplements to those suffering from TYPE II diabetes as well as "*Syndrome X*".

U.S. guidelines recommend adult women to receive 320 mgs. daily (more if pregnant) and men to receive 420 mgs.² Most common dietary sources of magnesium are nuts, legumes, cereals and grains, dairy products and dark green leafy vegetables. With the exception of the last, these foods will not be consumed during our weight loss phase, hence the need for supplementation. Once again, THE IDEAL DIET ensures our dieters get the adequate amounts of necessary nutrients.....never too much.

² National Institute of Health, Office of Dietary Supplements.
<http://dietarysupplements.info.nih.gov/factsheet/magnesium.asp>

NATURA CAL-MAG 120 tablets

Serving Size: 4 tablets daily
Serving Per Container: 30

Vitamin D (as cholecalciferol)	260IU	65%
Calcium (as calcium citrate)	600mg	60%
Magnesium (as magnesium citrate)	300mg	75%
Zinc (as zinc)	20mg	133%

Other Ingredients:

Microcrystalline cellulose, sodium croscarmellose, magnesium stearate, carboxymethylcellulose, hydroxypropyl methylcellulose, stearic acid, polyethylene glycol, carnauba wax.

NATURA POTASSIUM CALCIUM 100 tablets

Serving Size: 1 tablet
Servings Per Container: 100

Potassium (potassium bicarbonate)	800mg	22%
Calcium (as calcium carbonate)	200mg	20%

Other ingredients:

Microcrystalline cellulose, povidone, titanium dioxide, polyethylene glycol, colloidal silicon dioxide, magnesium stearate, polysorbate 80, hypromellose.

NATURA MULTI-VITA 60 tablets

Serving Size: 2 tablets
Serving Per Container: 30

Vitamin A (as beta-carotene)	3 320 IU	66%
Vitamin C (as ascorbic acid)	200mg	333%
Vitamin D (as cholecalciferol)	150 IU	44%
Vitamin E (as d-gamma, d-delta, d-alpha, d-beta tocopherols)	140 IU	466%
Thiamine (as thiamine mononitrate)	30mg	2 666%
Riboflavin (as riboflavin %-phosphate)	6mg	411%
Niacine (as niacinamide and niacin)	30mg	200%
Vitamin B6 (as pyridoxine hydrochloride)	30mg	1 900%
Folate (as folic acid)	260ug	65%
Vitamin B12 (cyanocobalamine)	164ug	2 566%
Biotine	260ug	83%
Pantothenic acid (as calcium pantothenate)	150mg	1 500%
Calcium (as calcium citrate)	84mg	11%
Iodine (as potassium iodide)	76ug	50%
Magnesium (as magnesium citrate)	42mg	10%
Zinc (as zinc citrate)	5mg	33%
Selenium (as selenium citrate)	100ug	142%
Manganese (as manganese citrate)	5mg	250%
Chromium (as chromium citrate)	90ug	75%
Molybdenum (as molybdenum citrate)	100ug	133%
Potassium (as potassium citrate)	20mg	1%
Vanadium (as vanadium citrate)	100ug	
Choline (as choline citrate)	20mg	

Other Ingredients:

Microcrystalline cellulose, magnesium stearate, silica gel