



# Clinical Indications for Thorne Research Products

By Michael Lebowitz, DC



**Michael Lebowitz D.C.**

Dear Colleagues,

Most of you know I have been involved with applied kinesiological (AK) research for about 30 years. I have written two books and over 60 original research papers, I write a monthly newsletter, and I have produced many DVD's based on my research. Many of you are also aware that the majority of the dietary supplements I use in my practice are manufactured by Thorne Research of Dover, Idaho (800-228-1966). As far back as 1989 I conducted a double-blinded, in-office study and recorded the statistics from it. At the time, I was treating fairly sensitive/allergic patients, and I wanted to determine which brand of supplements they could tolerate best and which brand would perform best clinically. I took seven brands (the ones most physicians use, including ones that claim to be hypoallergenic). I lined up different products that were either identical or very similar in label content (for example, 7 different 30-mg zinc products) and, using muscle testing as an evaluation procedure, I blindly tested them on a given patient and collected statistics on how many times each product strengthened weak muscles.

I was surprised to find that many times before I started doing this I had previously concluded that a patient didn't need a given nutrient, when in actuality they did, but for some reason the brand I was testing had not tested positive. This in-office study involved over 100 patients. The data I collected showed that the supplements made by Thorne Research showed up positive (strengthening weak muscles) 30 percent more than other brands. Almost every time another brand was positive, the Thorne supplement was also, and many times Thorne was the only brand that tested positive.

As I started using more Thorne products, I found that clinically my results improved dramatically, and my patients felt better and responded faster. Over the years since, hundreds of DC's have agreed with my observations.

I was most interested in finding out why this was happening, which led me to study manufacturing procedures, sources of nutrients, fillers, binders, etc. I have personally concluded that Thorne has the "cleanest" vitamin, mineral, and botanical products on the market. With the onslaught of chemicals in our society, it only makes sense to use the purest supplements possible. Many of you would be amazed at what can legally be put in supplements and yet not be listed on the label. I have put together the following list of products I commonly use and where I find them effective. I hope you find this useful. If you have any questions, please feel free to contact me at any time either via telephone (970-257-0311) or e-mail (noach2343@aol.com).

In health,  
Michael Lebowitz, D.C.

## **AL'S FORMULA®**

This is a multi-nutrient formula geared to males over 40. It contains the ingredients of Basic Nutrients V plus saw palmetto, glycine, glutamic acid, and alanine for prostate support, and also hawthorn and fractionated pectin. I always test Basic Nutrients I-V on male patients as well. I choose whichever multi formula tests best (I use the "distance test" to determine this).

**Dosage: 4 capsules twice daily.**

## **ANTI-OXIDANT**

This is a broad-spectrum antioxidant that includes Dimethylglycine and Reduced Glutathione. Cellular tissue damage is common in states of chronically ill health, and much of this is due to oxidative stress known as free radical pathology. Antioxidants both in the form of enzymes such as glutathione peroxidase, as well as certain vitamins, minerals, and amino acids, are the body's protection against oxidative stress – a common problem in our urban/suburban, chemicalized, high-stress society. Many chemically-intolerant patients find this product to be very helpful.

**Dosage: 1 capsule three times daily**

## **ARABINEX®**

This product from the larch tree contains long, densely-branched, high-molecular-weight polysaccharides similar to those in Echinacea and therapeutic mushrooms. It is immune-stimulating and extremely useful in acute and chronic viral infections. A few patients claim it has made their warts fall off. It has also been reported to help congested lymph and thus, may be useful in chemically-sensitive patients and those with metal toxicity to promote efficient lymph flow and metal excretion. It is one of my favorite supplements during acute viral infections.

**Adult Dosage: 1 scoop three times daily**

**Child Dosage: 1/2 scoop three times daily**

## **AR-ENCAP®**

This is an all-encompassing joint support formula composed of Glucosamine Sulfate, Methyl Sulfonyl Methane, Devil's Claw, Curcumin Phytosome (Meriva), and Indian Frankincense Extract (Boswellia). It is both anti-inflammatory and joint restorative and can be used both preventatively and therapeutically. From an AK standpoint, AR-Encap often tests positive over symptomatic areas (joints, etc.).

**Dosage: 4 capsules one to two times daily.**

## **ARTECIN®**

Artecina is a broad-spectrum, anti-parasitic herb. Approximately 70 percent of my patients test positive at some point for a parasitic condition, and Artecina can be very effective in resolving it. It is occasionally useful for fungal and bacterial issues also. Artecina should be taken along on an overseas trip and used when necessary at symptom onset, to prevent a serious infestation.

**Dosage: 1 capsule three times daily**

## **ASCORBIC ACID**

This is the purest ascorbic acid on the market (see if any other brand can totally dissolve in water). I have found it useful in heavy metal toxicity (particularly mercury), as well as in immune deficiency, and in acute infectious processes (when taken to bowel tolerance), histamine reactions, etc. Vitamin C can also be useful in breaking down dental anesthetics, so it can be used post-dental procedure to lessen the time of "numbness."

**Dosage: 1 capsule three times daily**

## **BASIC B COMPLEX**

Due to the intake of processed foods, dysbiosis, internalized stress, hypoadrenia, etc., many patients are deficient in the B vitamins. In addition, factors such as genetics, environmental exposures, or insufficient dietary intake may cause certain B vitamins to be lower than others in a particular patient. Thorne Research has six different B complexes. Basic B is a balanced B mixture, while their B complexes 1,3,5,6, and 12 have higher amounts of one particular B (for example, B Complex #1 is higher in vitamin B1). I have found in many cases, that giving the appropriate B complex works better clinically than giving an isolated nutrient (although exceptions are P-5-P, Folic acid, Cobamamide, and R-5-P). For the most part with muscle testing, a patient will test for only one product due to its particular ratio of nutrients. I have gotten wonderful clinical results with these products and test each one on a G-2 muscle for strengthening. I have also found Basic B Complex very useful in women who appear to have too much estrogen because it helps in hormone degradation and hormone and neurotransmitter production.

**Dosage: 1-2 capsules daily**

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## **B-COMPLEX #1**

B-Complex #1 is a B combination with proportionally higher amounts of thiamin. It should be tested for when patients weaken on acetone. The following symptoms may suggest a deficiency: confusion, depression, fatigue, irritability, numbness, anorexia, or a history of alcohol abuse. Recent research has shown that high doses of vitamin B-1 can be very useful in MS-type syndromes.

**Dosage: 1-2 capsules daily**

## **B-COMPLEX #3**

This complex has higher amounts of niacin. B-Complex #3 is useful for prostaglandin imbalances, chlorine and other chemical sensitivities, fatigue, food sensitivity symptoms, depression, headaches, insomnia, memory impairment, dermatitis, halitosis, elevated cholesterol or triglycerides, and neurotransmitter production.

**Dosage: 1-2 capsules daily**

## **B-COMPLEX #5**

This combination contains more pantothenic acid. It is indicated for adrenal cases, recurrent emotional complaints, neurovascular symptoms, anterograde patterns, CW torque, patients sensitive to chlorine and vinegar, abdominal pain, eczema, depression, fatigue, nervousness, and alopecia.

**Dosage: 1-2 capsules daily**

## **B-COMPLEX #6**

B-Complex #6 has higher amounts of pyridoxal 5'-phosphate and pyridoxine. It is indicated for treatment of food sensitivities, prostaglandin imbalances, electro-magnetic field intolerance, neurotransmitter imbalances, and other conditions. See Pyridoxal 5'-Phosphate for more indications.

**Dosage: 1-2 capsules daily**

## **B-COMPLEX #12**

This B complex contains higher amounts of vitamin B12 and folate and is used to treat anemia, MSG sensitivity, achlorhydria, constipation, depression, dizziness, fatigue, headaches, numbness, and glossitis.

**Dosage: 1-2 capsules daily**

## **BASIC NUTRIENTS I and III**

Basic Nutrients I and III are used in geographic areas where people tend to be copper toxic, or for those who have enough body stores of iron and do not need iron supplementation. Copper excess is very common due to the use of copper in plumbing, in termite-treated lumber, in agricultural fungicides, and in algicides for ponds and hot tubs. These are the multivitamin/mineral formulas I use most often.

**Dosage: 3 capsules twice daily (with or after meals)**

## **BASIC NUTRIENTS IV**

I believe this formula (along with Basic Nutrients I, II, III, and V) is the best multivitamin-mineral formula available and almost everyone will test for it (or Basic Nutrient III) at some point in their treatment program. It should be tested for on all patients. Some patients may only need to take it for a month or two, while others will need indefinite supplementation for maintenance. Occasionally, a patient will not test for it on the first visit, but will instead test for isolated nutrients like zinc or selenium. Quite often within a few weeks, the patient's nutrient ratios will be better balanced and testing will then indicate its use.

**Dosage: 3 capsules twice daily (with or after meals)**

## **BASIC NUTRIENTS V**

This is another excellent product. It has copper but does not contain iron or iodine. Due to individual differences, many patients will only test on one of Thorne's multi's (although some will test on more or all of them). Being able to use AK to help prescribe the right one will help optimize patient results. Sometimes over time a patient will switch from one multi to another.

**Dosage: 3 capsules twice daily (with or after meals)**

## **BASIC PRENATAL**

This product is designed to meet the needs of pregnant women; it includes 500 mcg of 5-MTHF. This is an excellent, easy to take multi. With AK testing I find about 50 percent of pregnant women test for this formula while the other 50 percent test for one of the other Basic Nutrients. During a patient's pregnancy, I also often find the need for Cal-Mag Citramate, DHA, and UltraChrome.

**Dosage: 1 capsule three times daily**

## **BERBERCAP®**

Berbercap contains an extract of the herb *Berberis aristata*. *Berberis* exhibits antimicrobial activity against bacteria (gram positive and negative), fungi, and protozoa, *Streptococcus pyogenes*, most *Candida* species, *Entamoeba histolytica*, *Giardia lamblia*, *Klebsiella*, etc. It is a very effective antibacterial when indicated.

**Dosage:** *1 capsule three times daily.\**

**\*I will often double the dose with an acute bacterial infection.**

## **BETAINE HCL & PEPSIN**

This product is helpful in acidifying the stomach for patients with digestive disorders, especially those with difficulty breaking down proteins. It contains no lactose, which is frequently used to dilute pepsin yet is rarely, if ever, listed on the label. I find it helpful on occasion in restoring proper gastric pH in patients with dysbiosis; I believe it renders the gastrointestinal tract less desirable for dysbiotic organisms.

**Dosage:** *1-2 capsules with meals*

## **BIO-GEST®**

Bio-Gest is a broad-spectrum digestive aid; it contains Betaine and Glutamic Acid HCl to increase gastric acidity, Pepsin for proteolytic activity in the stomach, Pancreatin, providing enzymatic action to break down protein, starches, and fats, and Ox Bile for enhanced fatty acid absorption.

**Dosage:** *1-2 capsules with meals*

## **BIOMINS® and BIOMINS II®**

Biomins is a broad-spectrum mineral supplement I use quite often in patients that do not test for Basic Nutrients. Biomins frequently tests positive for these patients because they are low in minerals but have a hard time tolerating vitamin supplementation. Biomins works well on general mineral deficiency symptoms such as splitting nails, bleeding gums, etc. Upon screening, most patients will show a test preference for Biomins II (without copper or iron). I use both products quite often, especially in patients who do not need Basic Nutrients.

**Dosage:** *2 capsules twice daily*

## **BLACK CURRANT OIL**

Black Currant Oil is a vegetable oil that is high in Omega 6 fatty acids. I find it useful in some cases of prostaglandin imbalances, PMS, and eczema. But Thorne's Super EPA and Omega Plus should also be tested in cases you suspect fatty acid problems.

**Dosage:** *1 capsule three times daily*

## **BORON PICOLINATE**

This is most frequently considered for treating and preventing osteoporosis, although it shows in quite a variety of clinical conditions, including hormone imbalances.

**Dosage:** *1 capsule three times daily*

## **M.F. BROMELAIN®**

While I have used this product for a long time, recently I have been using it more in treating the toxic, allergic patient. It has many pharmacological effects: (1) it acts as a substitute for trypsin and pepsin in cases of decreased pancreatic function and is active over a wide pH range; (2) it acts as a powerful anti-inflammatory agent by activating plasmins and decreasing kinin levels; (3) it inhibits platelet aggregation, thus helping angina patients; (4) it has antibiotic properties; (5) it is a strong mucolytic, useful in respiratory disease; (6) it is useful in both acute and chronic thrombophlebitis; and (6) it is a smooth muscle relaxer that can be used to treat dysmenorrhea. Its main use has been post-athletic injury and post-surgery to reduce edema and bruising and speed healing time. It is also quite useful in breaking down immune complexes in the arthritic patient.

**Dosage:** *1 capsule three times daily between meals\**

**\*The dose can be doubled in acute injury cases**

## **BUFFERED C POWDER**

Buffered C Powder is an excellent ascorbic acid for sensitive patients. In some cases it can abort sensitivity reactions due to food and/or chemical sensitivities. Sensitive patients can keep some on-hand to use as needed. It has been used for many years by clinical ecologists to decrease time and duration of sensitivity reactions and is also useful during fungus and/or parasite die off to decrease reaction severity.

**Dosage:** *1 heaping teaspoon in water every 2-3 hours*

## **CAL-MAG CITRATE EFFERVESCENT POWDER**

This product is very useful in patients who are low in both calcium and magnesium. It often tests positive when the individual nutrients – calcium and magnesium – tested separately do not. It tests positive for many musculoskeletal cases and hypertension.

**Dosage:** *1 scoop in water one to three times daily*

## **CALCIUM CITRAMATE**

This product has the same indications as Thorne's Calcium Citrate but higher absorbability. In my experience the Citramate form tests better when musculoskeletal complaints are primary.

**Dosage:** *1 capsule three times daily*



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## **CALCIUM CITRATE**

Calcium Citrate is useful in musculoskeletal cases, for insomnia, for people who hold in their emotions, and in treating hypertension. Other signs of deficiency include agitation, depression, eczema, hyperactivity, palpitations, and periodontal disease.

**Dosage:** *1 capsule three times daily*

## **CALCIUM-MAGNESIUM CITRAMATE**

This is a very absorbable form that is perfect for the patient with osteoporosis and muscle pains/cramps. Many athletes test for this formula due to their increased muscle activity. I have also found it tests positive in many patients with osteoporosis. This is the calcium-magnesium product I prescribe most.

**Dosage:** *3-6 capsules daily*

## **CAPTOMER®**

This is meso-2,3-dimercaptosuccinic acid (DMSA). DMSA has been used for years as a chelator of mercury, lead, arsenic, and copper. Clinically with AK it appears to chelate out other toxic minerals as well. It has been a lifesaver for many of my patients (including myself) who have metal toxic symptoms including extreme memory loss, mood swings, numbness, cervical lymphatic swelling, and strange neurological symptoms. Studies say it crosses the blood-brain barrier, which makes it very effective. Pharmaceutical doses are approximately 2-3x/daily for the average adult, although I prefer 1-2x/daily.\* On occasion, symptoms occur as metals are taken from bodily storage sites to be excreted. Brain fog due to the excreting metals can be a temporary side effect as can gum or tooth pain, visual changes, and burning urine. I was an incredibly irritable mess with virtually no memory after amalgam removal in the early '90s and DMSA restored my memory and calmed my disposition. I still test for it occasionally. It is important to test for a patient's need for DMSA every visit as sometimes it is better to do a few weeks on and then a few weeks off. It is the treatment of choice in children with lead toxicity. After using it you might find more metals test on a patient than tested initially as some are pulled out of storage. It can also bind zinc so monitor zinc levels also. It sometimes tests in combination with zinc and sometimes separately. When it tests separately it is best to have the patient take it separate from other supplements. On occasion I dissolve it in olive oil and use it topically over areas that toxic metals test positive. I have seen some chronic musculoskeletal problems resolve this way.

**Dosage:** *See above\**

## **L-CARNITINE**

Test for L-Carnitine on all patients with cardiac problems, liver problems, chronic musculoskeletal problems, and chemical sensitivities. It has the following clinical uses and properties: (1) it transports fat into the mitochondria of muscle cells; (2) it has shown to be an effective anti-angina agent; (3) it improves muscle building; (4) it can be used to help and/or correct congestive heart failure, idiopathic mitral valve prolapse, and various cardiac myopathies; (5) it can be helpful in many kidney and liver diseases; (6) it has triglyceride- and cholesterol-lowering properties. L-Carnitine tests positive on many vegetarians and most professional athletes as it can help counteract muscle breakdown from excessive exercise.

**Dosage:** *1 capsule three times daily*

## **CARNITYL®**

Acetyl-L-Carnitine is a naturally occurring amino acid similar to acetylcholine. It is a strong antioxidant, stabilizes membranes, and enhances cholinergic transmissions. It is considered neuroprotective. It has been used in treating Alzheimer's, senile dementia, Down's syndrome, and depression. Often it blocks positive muscle tests of most metals (including mercury) and toxic chemicals. It is possible that it actually helps pull metals and chemicals out of the brain (it readily crosses the blood-brain barrier).

**Dosage:** *1 capsule two or three times daily*

## **CHROMIUM PICOLINATE**

This mineral is an essential trace element. It increases glucose tolerance in diabetics and hypoglycemics and reduces serum cholesterol. I often find its supplementation is indicated in athletes and pregnant women (especially with a tendency toward gestational diabetes).

**Dosage:** *1 capsule two times daily*

## **CITRAMINS® and CITRAMINS II®**

Citramins is similar to Biamins, except the minerals are in citrate form rather than in picolinate form. It is a great all-encompassing mineral supplement. I find that some people do better on picolines while others do better on citrates. Citramins should be tested on all patients that do not need Basic Nutrients.

**Dosage:** *1 capsule three times daily*

## CO-10®

Most of you are familiar with this nutrient already. Coenzyme Q10 is a substance essential to the health of all human tissue because of its importance in electron transport, cellular respiration, and enzyme production. Although humans do synthesize it, many people do not synthesize it in sufficient quantities to meet all their needs. Coenzyme Q10 appears to promote better functioning of cardiac tissue; it has thus been shown useful in reducing angina episodes, reducing infarct size, and treatment of congestive heart failure, cardiomyopathy, and mitral valve prolapse. It is also useful in reducing the toxicity of beta-blockers, adriamycin (a chemotherapy drug), and some psychotropic drugs. Published studies have shown Coenzyme Q10 supplementation to be useful in treatment of diabetes mellitus, periodontal disease, gastric ulcers, obesity, and immunosuppression. It is useful in treating allergies because it inhibits histamine release and also serves as an antioxidant. I test it on many patients to see if it strengthens a weak G-2.

**Dosage: 1-2 capsules daily**

## COLLAG-EN

This is a great formula that helps to stabilize ligaments and tendons. I find it also tests positive in disc cases and helps lessen recurrent subluxations. It should be given post any chiropractic manipulation.

**Dosage: 2 capsules twice daily**

## COPTIS

Coptis is a Chinese herb otherwise known as Huang Lian. It has many pharmacological effects: (1) strong, broad spectrum antifungal properties; (2) antiprotozoal action – it kills leptospira, trichomonas, and amoeba in vitro and in vivo; (3) antiviral effect – it has shown antiviral effects against influenza and Newcastle virus; (4) antimicrobial effects – as a broad-spectrum antimicrobial it has shown inhibition of streptococcus, staphylococcus, shigella, mycobacterium, and hemophilus pertussis; and (5) studies have shown Coptis useful in treating bacillary dysentery, typhoid fever, scarlet fever, diphtheria, inflammatory bowel disease, suppurative otitis media, type II diabetes, and acute tonsillitis. My main use for Coptis is that it is an effective, broad-spectrum antifungal in the tincture form. I use it for children with fungal problems who are not capable of swallowing capsules. It does have a rather nasty taste, so I dilute it with a little water when we use it. Coptis, like

Berbercap, has berberine in it but this particular plant seems to have a much stronger antifungal effect, whereas we find Berbercap extremely useful as an antibacterial. This illustrates the fact that a plant is more than its primary so-called active ingredient.

**Adult Dosage: 10-20 drops three times daily**

**Child Dosage: titrate appropriately based on the child's weight**

## COPPER PICOLINATE

Therapeutic uses of copper include: (1) a component of superoxide dismutase – an enzyme that converts toxic superoxide ions to hydrogen peroxide; (2) as an antiviral; (3) a component of an enzyme needed to produce elastin, a major protein of connective tissue, and copper is also needed in collagen production; (4) used in the conversion of dopamine to noradrenalin and the breakdown of serotonin (copper metalloenzyme tyrosinase catalyzes tyrosine to dopa and melanin); and (5) used in the enzyme transport system. Copper deficiency can affect the circulatory system by inducing abnormalities in the heart and blood vessels, as well as causing increased cholesterol. Clinical studies have shown copper deficiencies to be associated with alopecia, anemia, depression, dermatoses, diarrhea, fatigue, fragile bones, respiration impairment, and weakness. Copper deficiencies are often created by over-supplementation with zinc and/or vitamin C. Copper deficiency seems to be somewhat geographical in nature and somewhat dependent on whether a patient's residence has copper plumbing or not.

**Dosage: 1 capsule three times daily**

## CORTINE®

As an adrenal support Cortine is useful when a patient is under high stress. It is also useful for normalizing low blood sugar.

**Dosage: 1 capsule three times daily**

## CORTREX®

Cortex is adrenal support with synergistic herbs and nutrients. I find it useful for patients with mid-afternoon energy slumps, postural hypotension, light sensitivity, and hypoglycemia. Of the Thorne supplements that address adrenal issues, I use Cortex the most.

**Dosage: 1 capsule three times daily  
D-1,000 and D-10,000**

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We are all aware of how necessary vitamin D is for immune and endocrine support and bone density. Most of us don't spend enough time outdoors, or we live in climates with inadequate sunshine or use skin lotions that block UV absorption. D-1,000 is a great maintenance product, while D-10,000 is for restoring deficiencies of this essential nutrient.

**Dosage: 1 capsule daily**

### DHA

DHA is an Omega-3 essential fatty acid involved in proper neuronal and retinal function. It has been found useful in ADHD and has anti-inflammatory properties. I find it to be needed most frequently in pregnant mothers and young children.

**Dosage: 1 capsule three times daily**

### DIPAN-9®

Test Dipan-9 on patients who have a need for digestive enzymes. It is a pure, very effective form of pancreatic enzymes. It is derived from pork. I find it preferable to fungal-derived enzymes. It can also be given away from food to break up immune complexes in various inflammatory diseases.

**Dosage: 1 capsule three times daily**

### E-500

This product is useful in treating chemical sensitivities, weak gluteus medius, and prostaglandin imbalances. Vitamin E is a potent free-radical scavenger. It can be helpful for arthritis, malabsorption, intermittent claudication, fibrocystic breasts, gait disturbances, infertility, and diminished proprioception.

**Dosage: 1 capsule daily**

### FOLACAL®

This product has 800 mcg of folinic acid, the active form of folic acid. It is absorbed more readily than folic acid and corrects deficiency states more readily. It takes five steps for the body to convert folic acid to folinic acid. Adequate liver function, small intestine function, as well as vitamins B3 and B6 are needed for proper conversion. Folinic acid has a bioavailability of 92-98 percent. It is very valuable in correcting anemias, preventing neural tube defects, hyoid imbalance, and is necessary in norepinephrine synthesis. It can reverse the toxic effects to normal cells of the chemotherapeutic drug methotrexate. At higher doses (3 caps 3x daily), Folacal is useful in uterine cervical dysplasia (abnormal pap smears), hot flashes, and gout.

**Dosage: 1 capsule three times daily**

### FOLIC ACID LIQUID

Folic Acid is a well-tolerated, easy to take liquid form of this nutrient. It can aid in preventing postmenopausal symptoms, switching and hyoid problems, and to treat cervical dysplasia. It makes a great mouthwash (4 drops in water) in cases of gingivitis and other gum diseases. I have had wonderful feedback from patients with these issues.

**Dosage: 4 drops daily**

### FORMULA SF722

This is a broad-spectrum antifungal. I have found clinically, in addition to *Candida albicans*, many other fungi are routinely found in individuals that can cause hypersensitivity reactions with resultant fatigue, irritability, brain fog, and recurrent musculoskeletal problems. When treating these, besides an alleviation of the above symptoms, I routinely see weight loss in overweight patients and the disappearance of chronic athlete's foot. Once the fungal problem is resolved, and the patient stays on Formula SF722, brain fog and fatigue may be likely, so if these symptoms occur while on Formula SF722 have them come in immediately to determine if it is time to stop the supplementation. It is also often advisable to have the patient's sexual partner take Formula SF722 simultaneously as fungal problems are often sexually transmitted. Pets too can be a source or infection, as can a moldy house.

**Dosage: 3 capsules three times daily**

### FORMULA SF734

A correlation exists between peptic and duodenal ulcers and colonization with *Helicobacter pylori*. The ingredients in Formula SF734 are formulated to both inhibit the growth of this species and to accelerate the healing of ulcerous tissue. Test the substance over the stomach or duodenum. Chicken and/or eggs can be a source of *Helicobacter* contamination, which Formula SF734 can be useful in treating. Warn patients that while taking this product their stool may temporarily turn black due to the bismuth in it.

**Dosage: 1 capsule four times daily**

### GB24

This herb is used for patients with chronic fatigue. It has been shown to increase cerebral blood flow and is useful for older patients with peripheral circulatory problems. It is also helpful for people who will be visiting higher elevation locations.

**Dosage: 1 capsule three times daily**

### GLUCOSAMINE & CHONDROITIN



You can read about glucosamine sulfate under the product below. It is a very popular and effective chondro-protective supplement that should be considered in any degenerative joint disease or in injury repair. Because Thorne's combination is free of stearic acid (which almost all other brands are not) it should have superior absorption and assimilation.

**Dosage: 1 capsule three times daily**

## GLUCOSAMINE SULFATE

Glucosamine sulfate is found in many body tissues. It is the primary substrate for the biosynthesis of proteoglycans, which provide the framework for collagen and give tissue its flexibility and resilience. It also plays a role in the formation of articular surfaces, tendons, ligaments, synovial fluid, skin, bone, nails, and heart valves. It is very well absorbed when taken orally. In contrast to N-Acetyl Glucosamine that is currently marketed, it appears Glucosamine Sulfate is better absorbed, not altered in the intestine, and preferentially utilized by the body. It is especially useful in cases of arthritis.

**Dosage: 1 capsule three times daily**

## L-GLUTAMINE

This is the most abundant amino acid in the body. During times of infection, surgery, and injury, there is a greatly increased demand for L-Glutamine (and deficiencies are likely to exist during these times). With dysbiosis, food sensitivities, and ingestion of intestine-damaging NSAIDS so prevalent, damage to the intestinal mucosa as well as increased gastrointestinal permeability is quite common. Adequate L-Glutamine levels can greatly facilitate intestinal healing. L-Glutamine supplementation can increase small bowel mucosal thickness, villous height, preserve intestinal mucosal integrity, and enhance gut immune function. I test it on every patient with dysbiosis and food sensitivities. Sometimes it only tests positive after dysbiosis is corrected. I buy it in the powdered form.

**Dosage: 1 scoop three times daily**

## GLUTATHIONE-SR

I find this product useful in chemical and metal sensitivities/toxicities. Many people need it although they do not test deficient in cysteine, glycine, or glutamic acid (its components). I believe some patients, despite having the components, cannot synthesize it in adequate amounts. Perhaps a fogged-out patient is also fogged out internally (most likely they are) and is having a rough time synthesizing glutathione until you've cleared out other factors. Glutathione is a tri-peptide with free thiol (-SH) groups. This property makes it a very powerful antioxidant, anti-

carcinogen, and binder of xenobiotics (toxic chemicals) and toxic metals (especially mercury, gold, cadmium, and copper). Selenium works synergistically with GSH as does vitamin E and zinc. When there is an increased need for antioxidant activity it is theorized that most cells will require GSH from the plasma (which gets it from the liver) as opposed to making it. When the liver's synthesis capability is diminished (as it easily can be from chronic chemical and metal exposure), the body's GSH requirement must be met by diet and supplementation. Dietarily, raw fruits and vegetables (especially spinach and parsley) can raise plasma GSH levels, although it is wise to also supplement, at least temporarily. Interestingly enough, animal studies have shown supplementing with glycine and glutamic acid had no effect on plasma and tissue GSH. After GSH binds chemicals and metals it is important to excrete them as soon as possible, and a diet high in fruits, vegetables, and whole grains, as well as healthy fats (flax oil, possibly eggs from healthy chickens) can facilitate this process. When I test patients on chemicals or metals and they weaken a strong indicator muscle, I check to see whether the weakness is negated by glutathione, and if so, I supplement with it. GSH has proven to be a very useful product. It is appropriate to start taking it three days prior to any dental work, along with ascorbic acid (1 teaspoon three times daily), although ascorbic acid should not be taken just before an appointment because it may render the anesthetic ineffective.

**Dosage: 1 capsule twice daily**

## GREEN TEA PHYTOSOME

This product contains decaffeinated green tea extract complexed with phosphatidylcholine for better absorption. The catechin polyphenols in green tea are very strong antioxidants and protect against fat rancidity. Green tea appears to decrease the incidence of stroke and certain types of cancer. It also stimulates the production of glutathione peroxidase and catalase, and inhibits cyclooxygenase and lipoxygenase, thus proving useful in treating chemical and metal toxicity as well as inflammatory problems. It also has antibacterial properties.

**Dosage: 1 capsule three times daily**

## HMC HESPERIDIN

This product is effective in treating pollen and mold sensitivities, as well as mold inhalant allergy conditions. It can be useful for many food allergies, gout, and varicose veins. HMC has also been used successfully to stop hot flashes and for the prevention of miscarriages.

**Dosage: 1 capsule three times daily**

# Michael Lebowitz D.C.

## 5-HYDROXYTRYPTOPHAN

This product contains 50 mg of 5-HTP along with 5 mg of P-5-P, which is necessary in its conversion to serotonin and melatonin. The 5-HTP is extracted from the seed of *Griffonia simplicifolia*. 5-HTP increases the levels of serotonin, melatonin, endorphins, dopamine, and norepinephrine. Symptoms of deficiency can include depression, sleep disorders, anxiety disorders, obesity, carbohydrate craving, headaches, fibromyalgia, epilepsy, and Parkinson's disease. The depression type it is the most effective with is the type where the patient wants to be around others and tell them all their problems as opposed to the person who wants to be isolated (they typically respond to L-Tyrosine). Sometimes 5-HTP tests better than L-Tryptophan and sometimes L-Tryptophan tests better. From an AK standpoint, if you suspect the patient needs L-Tryptophan or 5-HTP and they do not test, have the patient close their eyes and retest and you will often find the deficiency will show in this manner.

**Dosage: 1-3 caps daily in the evening, separate from food**

## HYPER-EX®

Hyper-EX is a 300-mg standardized extract of *hypericum perforatum*, commonly known as St. John's Wort. *Hypericum* has a multitude of uses. The best studied are its antidepressant and antiviral activity. Certain components of *hypericum* can inhibit both type A and B monoamine oxidase. Studies have shown improvement in symptoms of insomnia, anxiety, apathy, anorexia, and depression with no side effects. Studies at New York University and the Weizmann Institute of Science in Israel show hypericin (the main active constituent in *hypericum*) to have anti-retrovirus activity. Strong antiviral activity against Herpes simplex, influenza, Epstein-Barr, and vesicular stomatitis has been shown. *Hypericum* has also shown antibacterial activity against both gram-positive and gram-negative bacteria, including *Staphylococcus*, *Streptococcus*, *Proteus*, and *Pseudomonas*. Patients taking *hypericum* may want to avoid foods and medications that negatively interact with MAO inhibitors. Tyramine-containing foods (cheese, beer, wine, fermented foods), L-dopa, and 5-hydroxytryptophan should be avoided. *Hypericum* should be taken with meals.

**Dosage: 1 capsule three times daily**

## IM-ENCAP

IM-ENCAP is an extremely effective immune system product combining herbal and glandular substances. It contains the following herbs: *Echinacea* – known to activate the immune system and to have direct antiviral and antibacterial properties; *Baptisia tinctoria* (Wild Indigo) – a traditional herbal synergist with *Echinacea*; *Sambucus nigra* (Black El-

der) – used for the common cold and influenza; *Eupatorium perfoliatum* (Boneset) – a traditional botanical for influenza with deep muscle aches and respiratory congestion; *Paeonia suffruticosa* (Tree Peony) – antibacterial herb effective against Staph., Strep., E. Coli; and *Tabebuia impetiginosa* (Pau D'Arco) – strong antiviral properties. IM-ENCAP is especially useful against acute colds, flu, and chronic viral conditions, and in conjunction with Thorne's Arabinex are my two favorite "anti-virals."

**Dosage: 2-4 capsules three to four times daily**

## INDOLE-3-CARBINOL

This is a natural constituent of the cabbage family. It has potential anti-cancer activity according to studies, especially estrogen-related cancers. I have found to date that it has tested positive on all of my patients who previously suffered from cancer. I also found that Glutathione tests positive in these type cases. It may also be useful in toxic metal cases – as the cabbage family usually is.

**Dosage: 1 capsule three times daily**

## IODINE & TYROSINE

Screen all patients suffering from fatigue, allergies, immune disorders, or addictions for Iodine-Tyrosine. It has both major components of thyroid hormone and should be checked for use on patients with hypothyroid symptoms. Usually these patients do not have a positive TL to the thyroid NL. I believe this is often because the thyroid has the ability to function correctly but lacks the raw materials to make an adequate amount of hormones. Most women test for this product or L-Tyrosine at one time in their treatment program. L-Tyrosine tests more often but sometimes this product does when L-Tyrosine does not.

**Dosage: 1 capsule three times daily**

## IPRIFLAVONE

This soy derivative has been shown in double-blinded, placebo-controlled studies to halt bone loss in peri- and postmenopausal women. Given in conjunction with calcium – as opposed to calcium with a placebo – it also caused increased bone density. Ipriflavone seems to work by inhibiting bone resorption and stimulating calcitonin secretion. It also increases formation of new bone. I have found with AK tests that this supplement tests positive on patients showing osteoporosis in bone scans.

**Dosage: 1 capsule three times daily**

## IRON PICOLINATE

This product is useful in iron deficiency cases, as well as in patients with retrograde pattern, sensitivity to aldehydes, ammonia handling problems, and electromagnetic imbalance. Deficiency symptoms can also include confusion, depression, dysphagia, headaches, anemia, and irritability.

**Dosage: 1 capsule daily**

## ISATIS

Isatis root, both from a kinesiological standpoint, as well as patient response, performs wonderfully as an antibacterial and antiviral. It is supposedly the most widely used antibiotic in China, having broad-spectrum antibacterial activity. It also has been shown to kill leptospirosis (common in Hawaii and other tropical areas in fresh water) and has been used successfully to treat measles, mumps, encephalitis, influenza, and hepatitis. Isatis is antipyretic, anti-inflammatory, and enhances phagocytosis.

**Dosage: 1 capsule three times daily in mild cases. Up to five capsules three times daily in acute cases.**

## ISO-PHOS®

Phosphatidylserine Isolate has the beneficial effects of PhosSerine in a less expensive form. This is the major acidic phospholipid in the human brain. It is theorized that it influences the fluidity of cell membranes, thus enhancing cellular metabolism and communication. Oral supplementation of phosphatidylserine (PS) has been shown to affect these, as well as neurotransmitter release. PS has been shown to possibly protect nerve cells from free radical damage (including damage caused by acetaldehyde – which is high in alcoholics and people with fungal/yeast problems), increase nutrition to the brain, and it readily crosses the blood-brain barrier. Some supplement companies have a calcium/magnesium chelate of serine that they falsely claim is phosphatidylserine. PS has also been shown to decrease SGPT and uric acid levels. It has helped patients with senile dementia, mild cognitive decline, memory impairment, and depressive disorders. I check for strengthening of a weak G-2 muscle or blocking of positive challenges to chemicals and metals, especially in cases of senile dementia, but also in cases of chemical sensitivity and endocrine imbalance (due to pituitary, pineal, or hypothalamus).

**Dosage: 1 capsule twice daily**

## LACTOBACILLUS SPOROGENES

Lactobacillus sporogenes, also known as Bacillus coagulans, is a spore-forming probiotic that has been used in Japan for over 20 years. Lactobacillus sporogenes has the following advantages over Lactobacillus acidophilus: (1) it survives manufacturing, shipping, and storage with no loss of viable organisms and does not require refrigeration; (2) it survives stomach acid and reaches the small intestine with no loss of viable organisms; and (3) it produces L(+) lactic acid which is fully metabolized to glycogen; whereas, Lactobacillus acidophilus produces L(-) lactic acid which is metabolized slowly and has the potential to lead to metabolic acidosis. I prefer to test this product on a weak G-2 muscle a few weeks after placing the patient on antimicrobials to correct dysbiosis (Formula SF722, Berbercap, Artecín), supplementing as long as indicated by testing on follow-up visits. During and after antibiotic use it may be useful as a preventative (along with Formula SF722).

**Dosage: 1 capsule three times daily**

## L-LYSINE

Lysine is an essential amino acid. Deficiencies have been associated with decreased immune response and decreased thymus growth. Lysine is also a precursor of both carnitine and citrulline. Adequate pyridoxal 5'-phosphate, iron, and vitamin C are needed for optimum absorption and metabolism of lysine. Arginine can act as an antagonist to lysine since they have a common transport system. Lysine supplementation results in the accelerated recovery from herpes simplex infection and suppression of recurrence. Unchecked herpes simplex can lead to other diseases, such as trigeminal neuralgia, Bell's palsy, and cervical and oral cancers. Copper toxicity can produce a lysine deficiency by leading to an overproduction of lysine oxidase. Stress can also produce a lysine deficiency. Lysine decreases calcium loss in the urine and may be helpful in preventing osteoporosis. It can also be useful in lead toxicity. I test L-lysine on all patients with herpes, osteoporosis tendencies, and lead toxicity.

**Dosage: 1 capsule three times daily**

## LIPOTREPEIN®

This is an excellent liver/gall bladder support, and it is also useful in allergy patients, endotoxemia, and free-radical problems. Lipotrepein improves lipid metabolism and increases bile flow.

**Dosage: 1 capsule three times daily**



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## MAGNESIUM CITRAMATE

Magnesium and zinc are by far the most common mineral deficiencies that I see in my practice. Their indications are listed under Magnesium Citrate, below. In general, I find the citramate form shows more often when musculoskeletal conditions or hypertension are primary, and the citrate form shows more when constipation is primary. Most of my professional athletes test for this product and it seems to decrease the frequency of pulled or tight muscles. When muscles do not turn off with spindle cell approximation, this supplement most often corrects that condition.

**Dosage: 1 capsule three times daily**

## MAGNESIUM CITRATE

Magnesium Citrate is useful in treating chronic musculoskeletal problems, spasms of smooth or skeletal muscles, hypertension, PMS, anxiety, confusion, depression, hyperactivity, seizures, and tachycardia. Magnesium Citrate is also extremely effective in patients suffering from constipation. It also helps insomnia when taken at bedtime.

**Dosage: 1 capsule three times daily. In severe constipation the dosage can be increased.**

## MANGANESE PICOLINATE

Screen for Manganese Picolinate on all musculoskeletal problems with suspected ligamentous involvement. It is necessary for carbohydrate metabolism, urea production (via the manganese-containing enzyme arginase), metabolism of acetylcholine, release of neurotransmitters by brain cells, pancreatic enzyme and saliva release, synthesis of immunoglobulins and pituitary hormones, and removal of toxic free radicals via superoxide dismutase. Excessive calcium intake (via dairy products or supplementation) and excessive phosphate (high meat and soft drink intake) reduces manganese availability and decreases absorption.

**Dosage: 1 capsule three times daily**

## MEDICLEAR®

This is Thorne's version of a non-dairy based meal replacement, hypoallergenic diet formula, detoxification, and fast-ing drink. As many of you know, I treat some extremely sensitive/allergy patients. MediClear appears to be well tolerated by many of these patients (including myself). I personally use it as a breakfast drink and all-round nutrient supplement. My family will add it to smoothies for extra supplementation. It tastes good, mixes well, and is

reasonably priced. It has no rice syrup solids. Just like Thorne's other products the minerals are in the highly available forms you don't see in similar products (picolinate, citrate-malate, UltraChrome, etc.). Vitamins include activated forms of vitamin B (R-5-P, P-5-P) and methylcobalamin. There are some amino acids, antioxidants, and EFA's. Read the label for yourself. On most patients doing sauna therapy or Bikkrum yoga, this is a great nutrient replacement therapy. It is also very effective post-gym workout as an excellent well-rounded protein supplement and more. Protocol varies over a 3-week period.

**Dosage: As recommended in the MediClear Patient Guide.**

## MEDICLEAR PLUS®

MediClear Plus has all the benefits of MediClear with extra flavonoids from curcumin, grape seed, and green tea in highly absorbable forms. In my practice I find the highly sensitive patient often does better on plain MediClear while the not very sensitive patient benefits more from MediClear Plus. It is unflavored and can be mixed in water, juice, or milk (cow, soy, rice, almond). Protocol varies over a 3-week period.

**Dosage: As recommended in MediClear Plus Patient Guide.**

## MEMORACTIV

As you can tell from the name of the product it is formulated to enhance brain function, especially our memory as we age. These structural and degenerative changes can be due to nutrient deficiencies, free-radical damage, environmental toxins, recreational and pharmaceutical drugs, emotional stress, junk food, alcohol, and tobacco. Over time these have a cumulative effect and memory and concentration start to decline. Memoractiv is designed as a protective agent, although along with I certainly recommend ceasing bad lifestyle choices. Memoractiv contains: (1) Phosphatidylserine isolate – this nutrient helps optimize cognitive function in the aging brain and has a positive influence on the hypothalamic-pituitary axis; (2) Gingko – a well-known herb to enhance memory, reaction time, and cognition, probably due to its antioxidant effects; (3) Acetyl-L-Carnitine – prevents oxidative damage and enhances cholinergic neurotransmission. ALC readily crosses the blood-brain barrier, and it also acts as an adrenal adaptogen; (4) Bacopa monniera extract – an Ayurvedic antioxidant that improves learning and enhances memory; (5) Vinpocetine – enhances cerebral circulation and oxygen utilization. It also enhances cognitive performance by allowing the brain to function in situations of low oxygen tension.

**Dosage: 2 capsules two to three times daily**

## **MERIVA-SR®**

One of my favorite more recent additions to the Thorne line, Meriva-SR is a patented time-released form of Curcumin. It has strong anti-inflammatory effects and is hepatoprotective. I have found many people with chronic spinal pain see the pain disappear while on Meriva when nothing else works.

**Dosage: 2 capsules two to three times daily**

## **META-BALANCE**

I find its primary use for hot flashes and other post-menopausal symptoms. I find it incredibly difficult to correct fungal problems in patients on prescription estrogen, but some patients due to symptoms need to take something safe to control hot flashes. Meta-Balance can fill that purpose. It contains Black Cohosh – a very effective phytoestrogen; HMC, which improves vasomotor stability – a problem often seen in menopause; Vitex agnus-castus – which normalizes pituitary secretion; Angelica sinensis (Dong Quai extract) – to support female hormone balance; Dioscorea villosa – for phytoprogestones; and Hypericum perforatum – for its mood-elevating effects.

**Dosage: 2 capsules two to three times daily**

## **META-FEM**

This is a multi-nutrient formula for women over forty. It has the ingredients of Basic Nutrients V with extra Calcium, Magnesium, and Pyridoxal 5'-Phosphate. It also has Dioscorea, Dong Quai, and HMC for optimal hormonal support and osteoporosis prevention.

**Dosage: 4 capsules twice daily**

## **METAPLEX®**

Metaplex is a free-form multi-amino acid supplement. Screen for Metaplex on all chronic patients. It is useful in cases involving toxic metals. I also find it strengthens weak G-2 muscles on most patients who are serious athletes. Metaplex is often part of my regimen on autistic patients.

**Dosage: 5 capsules daily**

## **METHYLCOBALAMIN**

This is another form of vitamin B12. I recently conducted a blinded study comparing methylcobalamin to other available forms of vitamin B12, and from an AK standpoint it greatly outperformed all other forms. It has now been added to most Thorne products that contain vitamin B12.

**Dosage: 1 capsule daily**

## **METHYL-GUARD®**

Methyl-Guard was created to decrease homocysteine levels in the body, which is a risk factor for atherosclerotic heart disease. Methyl-Guard may also enhance carnitine, CoQ10, taurine, and pantethine levels as well as SAM levels (possibly helping myelin formation). Methionine is de-methylated in the body into homocysteine by two interconnected pathways. Methionine then must be re-methylated to produce S-adenosylmethionine (SAM) which is the body's "universal methyl donor." SAM is necessary in re-myelination and the formation of carnitine and CoQ10. If homocysteine is not re-methylated it can damage endothelial cells, interrupt collagen synthesis and cross-linking, and cause heavy oxidant formation. The breakdown of homocysteine is also necessary to produce taurine and cysteine (see Taurine and Cysteine for uses), which are essential for proper body function. Methyl-Guard provides the essential cofactors necessary in the re-methylation and trans-sulfation pathways of methionine so that homocysteine levels are decreased and SAM levels are increased. It contains Betaine, Methylcobalamin, Folinic Acid, and Pyridoxal 5'-Phosphate.

**Dosage: 2 capsules three times daily**

## **5-MTHF (5-METHYLTETRAHYDROFOLATE)**

Many people have difficulty or an inability to convert inactive folic acid to its bioactive form. 5-MTHF is the most bioactive form. It acts as a methyl donor and is involved in neurotransmitter synthesis and nitric oxide production. From an AK standpoint, I test this as well as Folic Acid Liquid and let my test results decide which supplement to prescribe.

**Dosage: 1 capsule three times daily**

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## **MOLYBDENUM PICOLINATE**

Molybdenum is an essential trace element that can help many patients. It is necessary for the production of at least three important enzymes: (1) Xanthine Oxidase – which catalyzes xanthane to produce uric acid and hydrogen peroxide. (2) Aldehyde Oxidase (also needs riboflavin and iron) – breaking down aldehydes for urinary excretion is more and more important these days because exposure can occur from a variety of sources, such as formaldehyde and many other aldehydes in new clothes, furniture, chipboard, carpets, glues, perfumes, etc. These aldehydes are inhaled and need to be eliminated; in addition, bacteria, parasites, fungi, and yeast can also produce aldehydes internally. When aldehydes aren't adequately eliminated, brain fog, fatigue, toxicity, organ damage, and chemical sensitivities can result. Alcohol, both ingested and produced internally, is broken down in the body to acetaldehyde which then enters this pathway. (3) Sulfite Oxidase converts sulfites to sulfate which is excreted in the urine. This is implicated in some cases of asthma. I check for molybdenum to strengthen a weak G-2 muscle and/or to block weaknesses caused by aldehyde-containing substances and alcohol.

***Dosage: 1 capsule three times daily***

## **NIASAFE-600®**

Niasafe-600 has cholesterol-lowering and triglyceride-lowering effects. It has been found to be effective in intermittent claudication and Raynaud's Disease. Niacin in high doses often causes a flushing reaction, which can be rather unpleasant; to avoid this, time-released niacin is often used. Recently, however, the literature has reported quite a few cases of severe liver damage due to time-released niacin. An alternative form of time-release niacin, the niacin ester Inositol Hexaniacinate (which is composed of six molecules of niacin surrounding one molecule of inositol), releases niacin slowly while having the same hypocholesterimic activity as niacin (perhaps even stronger), but does not cause any apparent liver toxicity or flushing. It tests positive in most cases I get with hypercholesteremia.

***Dosage: 1 capsule three times daily***

## **NUTRI-FEM**

This is a multi-nutrient formula geared toward women under 40. It has all the ingredients of Basic NutrientsV with extra Pyridoxal 5'-Phosphate, Folate (as Calcium Folate and 5-MTHF), and Calcium. It also has Dioscorea for optimal hormonal balancing.

***Dosage: 4 capsules twice daily***

## **OCU-CLEAR**

This comprehensive formula is a preventative and is also for potential treatment of cataracts and/or macular degeneration.

***Dosage: 2 capsules twice daily***

## **OLIVE LEAF EXTRACT**

I have been aware of Olive Leaf Extract for quite some time and have been testing it for years with sporadic results. This product, however, has consistent quality. It has very broad-spectrum antimicrobial properties and should be tested in cases of fungus, parasites, bacteria, and virus. I often use it in conjunction with a second antimicrobial (whatever tests) for optimal results.

***Dosage: 1 capsule three times daily (the dose can be doubled in acute cases)***

## **OMEGA-3 w/COQ10**

This product is an excellent supplement for cardiac and neurological support. I find this product tests positive in a high percentage of patients with a family or personal history of cardiac problems. There are two simple in-office tests I perform that in my opinion suggest a tendency toward cardiac or circulatory issues. In one test I have the patient rotate the head fully to one side, and I immediately test an indicator muscle. If it remains strong I wait 10 seconds and retest. If the muscle now weakens it is a positive test. I do this test bilaterally. If the patient ingests either Omega3 w/ CoQ10 or Perfusia, the positive test is often negated and after taking the product for a few weeks the patient in many cases no longer shows a positive test. The other test is to test the subscapularis muscle in the standing position (test both sides). Then have the patient do 10 in-place jumps and redo the test. If the subscapularis weakens it is a positive test. This test is also often negated by Omega3 w/CoQ10 or Perfusia or possibly L-Carnitine and should be supplemented accordingly. In cases with strong family cardiac history this product often needs to be given indefinitely.

***Dosage: 1 capsule three times daily***

## **OMEGA PLUS**

Omega Plus is useful for a variety of conditions, including inflammatory problems, musculoskeletal cases, leukotriene excess, prostaglandin imbalances, and general fatty acid deficiency. It is a rich source of Omega-3 and Omega-6 fatty acids. If it tests negative, check Super EPA and Black Currant Oil separately. On athletes I often test a muscle many times in a row fairly quickly (anaerobic muscle testing), and if this causes muscle weakness after six tests or less, Omega Plus or Super EPA often corrects it. I find it is often needed in professional athletes.

***Dosage: 1 capsule three times daily***



## **O.P.C.-30**

This product is a bioflavonoid with strong antioxidant properties. As a free-radical scavenger, it is 50 times more powerful than vitamin E and 20 times more powerful than vitamin C. It is water-soluble and extremely bioavailable (it is an extract of grape seed). It lowers the permeability of blood vessel walls and decreases capillary fragility, and has thus been successfully used to treat varicose veins, retinal degeneration, bruising, diabetic retinopathy, pyorrheas, and other conditions. It also inhibits histidine decarboxylase, thus aiding in ulcers and allergy symptoms. It is useful in chemical sensitivities, fungal problems, and dysbiosis.

**Dosage: 2-4 capsules daily, depending on severity**

## **OSCAP**

Oscap is composed of a combination of vitamins and minerals specific for restoring bone in conditions such as osteoporosis and for healing following fractures. I always test this on older patients suffering from musculoskeletal conditions.

**Dosage: 2 capsules three times daily**

## **OSCAP PLUS**

This product, for osteoporosis and fractures, has all of the bone-building components of Oscap, plus it contains Ipriflavone, for total bone support, which I have also written about. It tests positive in many post-menopausal women.

**Dosage: 2 capsules three times daily**

## **PANTETHINE**

Pantethine is the stable disulfate form of pantetheine, the active form of pantothenic acid. It converts easier to co-enzyme A, essential for energy metabolism. It has been shown to decrease serum triglycerides and cholesterol and increase HDL cholesterol levels. It accelerates beta-oxidation of fatty acids and can reduce lipid deposition in arterial walls. It is also anti-arrhythmic. Deficiencies of pantothenic acid can lead to malaise, abdominal distress, burning cramps, leg cramps, heel tenderness, insomnia, and fatigue.

**Dosage: 1 capsule twice daily**

## **PERFUSIA®**

Perfusia is a sustained-released L-Arginine product. L-Arginine is converted into nitric oxide in the body and is critical to vascular endothelial health and elasticity. It is also very useful in erectile dysfunction and as a pre-workout supplement to increase performance. Like Omega 3 w/CoQ10 it tests positive in many cases with a family history of cardiac/circulatory problems. There are two simple in-office tests I perform that in my opinion suggest a tendency toward

cardiac or circulatory issues. In one test I have the patient rotate the head fully to one side, and I immediately test an indicator muscle. If it remains strong I wait 10 seconds and retest. If the muscle now weakens it is a positive test. I do this test bilaterally. If the patient ingests either Omega3 w/ CoQ10 or Perfusia, the positive test is often negated and after taking the product for a few weeks the patient in many cases no longer shows a positive test. The other test is to test the subscapularis muscle in the standing position (test both sides). Then have the patient do 10 in-place jumps and redo the test. If the subscapularis weakens it is a positive test. This test is also often negated by Omega3 w/CoQ10 or Perfusia or possibly L-Carnitine and should be supplemented accordingly. In cases with strong family cardiac history this product often needs to be given indefinitely.

**Dosage: 2 capsules twice daily**

## **PHARMAGABA-100 and PHARMAGABA-250**

This highly absorbable form of GABA is available only from Thorne. I find it tests and performs much better than other forms (despite the higher amounts in many other forms). It tests positive in most cases of insomnia and high anxiety and produces physical relaxation without sacrificing mental acuity. In many cases it overlaps the symptom picture of patients needing L-Tryptophan or 5HTP, and your AK testing will show which of these products (either one or a combination) is needed.

**Dosage: 100 mg twice daily for a week (if needed, dosage can be increased to 500 mg daily)**

## **DL-PHENYLALANINE**

This essential amino acid is a precursor to catecholamines. It has been shown useful in many cases of depression, can be an effective pain reliever, and may be useful in treating PMS. Because DL-phenylalanine can tie up enkephalinase, thus prolonging the life of enkephalins, it can be very useful in treating addictions. Addictive foods, tobacco, caffeine, and drugs show up different ways in muscle testing. Some weaken a strong indicator muscle, while others will strengthen a weak G-2 due to the substances temporary stimulating properties. Others will only weaken while the patient TL's the adrenal NL's. With any addictive food or substance, it is advisable to check for DL-Phenylalanine to negate the weakness (or strength as in the second example). Supplement if positive. Of course, I also neurologically desensitize the patient.

**Dosage: 1-3 capsules twice daily**

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## PHOSPHATIDYL CHOLINE

Phosphatidyl Choline is a very useful product in my practice. It is lipotropic; i.e., it removes triglycerides from the liver, thus preventing fatty liver. Research shows a possible use in hypothyroid patients; it acts as a source of methyl groups in the synthesis of methionine; it helps dispose of LDL cholesterol; and it can improve both memory and cognition (presumably because it increases brain levels of acetylcholine). I test it on all patients for strengthening of a weak G-2 muscle. About 30 percent of my patients undergoing some type of emotional recall treatment (psychotherapy, NET, etc.) benefit from Phosphatidyl Choline, although it may only show in testing when the patient is stressed by thinking of the event or viewing the proper frequency.

**Dosage: 1 capsule three times daily**

## PHYTISONE®

This supplement is formulated to help the adrenals respond to stress. In AK, hypoadrenia has been talked about for many years. The adrenals are bombarded daily due to emotional stress, refined foods, caffeine, pollutants, micro-organisms, allergens, etc., and the result is common symptoms such as headaches, craving sweets, fatigue, postural hypotension, light sensitivity, chronic low-back pain, etc. Phytisone has Eleutherococcus, Panax ginseng, and Ashwagandha, which all enhance the response of the adrenals to physical and chemical stress; Glycyrrhiza, which has a harmonizing effect on glucocorticoid activity; and Astragalus, Zingiber, Ascorbic acid, Pantethine, P-5-P, and Zinc for supporting optimal adrenal function. This is a great non-glandular supplement to support the adrenals.

**Dosage: 2 capsules two times daily**

## PHYTOPROFEN®

Phytoprofen is a great herbal anti-inflammatory blend of Bromelain, Boswellia, Curcumin (Meriva), and Picrorhiza. It can be used in both acute and chronic cases, as well as post-injury and post-surgical intervention.

**Dosage: 2 capsules three times daily (acute); 1 capsule three times daily (chronic)**

## PIC-MINS®

This product is very similar to Trace Minerals except the minerals are in picolinate form (except for chromium, which is in the same form as UltraChrome). Pic-Mins is very useful for patients with musculoskeletal injuries to help rebuild muscles and ligaments. It will also neutralize some positive AK tests for chemical and metal hypersensitivity. I test on all patients who test negative on Basic Nutrients, Biomin, Citramins, and Trace Minerals and supplement accordingly.

**Dosage: 1 capsule three times daily**

## POTASSIUM CITRATE

This is a useful supplement for many patients with hypertension, acne, cognitive impairment, edema, depression, high cholesterol, and muscle weakness.

**Dosage: 1 capsule three times daily**

## PYRIDOXAL 5'-PHOSPHATE

This will often test to negate food sensitivities, prostaglandin imbalances, fluid retention, recurrent musculoskeletal problems, weak gluteal muscles, retrograde patterns, CCW and/or CW torques, and weakness of the pineal NL (GV-20). It will often strengthen weak neck and low back muscles. A majority of women on oral contraception or estrogen replacement therapy will show a need, as will patients on prednisone. PMS, carpal tunnel syndrome, and electromagnetic field sensitivity can all benefit from supplementing with P-5-P. This is the isolated vitamin I use the most in my practice.

**Dosage: 1 capsule three times daily**

## RIBOFLAVIN 5'-PHOSPHATE

This product is an activated form of vitamin B2 that we check out in the following cases: hypoadrenia, chemical sensitivities, difficulty with aldehydes (sensitive to perfumes, shopping malls, Candida, etc.), cataracts, dermatitis, and photophobia.

**Dosage: 1 capsule three times daily**

## QC NASAL SPRAY

This is a homeopathic product I have had the privilege of using for many years. Its ingredients are Quercetin (soluble) 2x and Euphorbium 3x. It is for the temporary relief of allergic rhinitis, inhalant allergies, and their related symptoms. Quercetin blocks histamine release and inhibits cyclooxygenase and lipoxygenase. Personally, I find it has been a useful supplement, but emphasize that ideally it should be part of a comprehensive program. If you clear dysbiosis, treat food sensitivities, nutrient deficiencies, etc., as we advise, you will be correcting the underlying causes of these symptoms. I use the spray early on in severe cases to bring symptomatic relief while we treat the underlying causes and during those occasional flare-ups afterwards when there has been some recidivism in findings. For patients unwilling to go through a more comprehensive program it is a much safer alternative than most other preparations.

**Dosage: 1 spray in each nostril one to three times daily**

## **QUERCETONE®**

Quercetin is a bioflavonoid with many valuable properties. Until recently the quercetins available only had a 1-2 percent absorption rate with possible toxic side effects. Quercetin Chalcone, a patented Thorne product, appears to be much more bioavailable (perhaps a 50-percent absorption rate) and non-toxic compared to previously available quercetins. Quercetin is a potent inhibitor of mast cell and basophil degranulation, thus greatly decreasing histamine release and its resultant inflammatory and allergic symptoms. Quercetin's membrane-stabilizing effect decreases neutrophil liposomal enzyme secretion, preventing lipid peroxidation and leukotriene and prostaglandin release. It also has a sparing effect on vitamin C and epinephrine, improves pancreatic islet cell function, and can help prevent diabetic neuropathy and retinopathy. Quercetin also exhibits strong antiviral activity, and research suggests it is a suppresser of tumor formation and a useful item for cancer prevention. This is a product that can be useful in most allergy patients and patients with inflammatory conditions.

**Dosage: 1 capsule three times daily**

## **R-LIPOIC ACID**

This is the most bioactive and absorbable form of Alpha-Lipoic Acid. Taken orally it is rapidly converted to DHLA, which has strong antioxidant activity in both water and fat soluble domains. Besides neutralizing reactive oxygen species, it also regenerates reduced glutathione and vitamin C. It is also a good product for metal toxicity, especially cadmium, copper, and mercury. It can complement mercury chelators such as Metaplex, Captomer, and Glutathione-SR, as it increases mercury biliary excretion. It may also be indicated in hepatic disease, diabetic neuropathy, and liver, eye, and nerve health. From an AK standpoint, sometimes Thiocid outtests R-Lipoic Acid and sometimes the reverse is true; we supplement as per our test results.

**Dosage: 1 capsule one to two times daily**

## **S.A.T.®**

S.A.T. is a wonderful product for the liver. It is both hepatoprotective and hepatoregenerative and is composed of three herbs: (1) *Silybum marianum* (milk thistle) – milk thistle is an incredible herb that prevents glutathione depletion in the liver caused by alcohol, chemicals, etc., inhibits leukotriene and prostaglandin synthesis during inflammation, and prevents free-radical damage, as well as promoting the production of new liver cells to replace older damaged ones (I find milk thistle in this form to be more effective than in liquid tincture); (2) *Curcuma longa* (Turmeric) – Turmeric is a potent anti-inflammatory agent (as effective as cortisone in acute inflammation) that prevents increases in SGOT

and SGPT (AST, ALT) in inflammation and has hepatoprotective effects similar to milk thistle; (3) *Cynara scolymus* (Artichoke) – Artichoke is another hepatoprotective and hepatoregenerative herb that in some cases has cholesterol-lowering and triglyceride-lowering effects.

**Dosage: 1 capsule three times daily**

## **SELENIUM PICOLINATE**

Check this product if you find chemical and mold sensitivities and/or Candida.

**Dosage: 1 capsule three times daily**

## **SUPER EPA**

Super EPA is useful for chronic inflammatory conditions such as arthritis, recurrent subluxations, high triglycerides, cardiovascular problems, psoriasis, autoimmune diseases, and lupus. It is a rich source of omega-3 fatty acids. Most serious athletes or individuals who work out daily can benefit from omega-3's. It often tests positive on the anaerobic muscle test challenge (as described above, under Omega Plus).

**Dosage: 1 capsule three to four times daily**

## **T.A.P.S.®**

This product has the same hepatic-supporting herbs as S.A.T. (as described above, under S.A.T.) with the addition of *Picrorhiza*. *Picrorhiza* has anti-inflammatory, antioxidant, choloretic, and liver regenerative effects.

**Dosage: 1 capsule three times daily**

## **TAURINE**

Taurine is an amino acid needed by many individuals. It is the second-most important inhibitory neurotransmitter in the brain. It has both anti-anxiety and anti-convulsive properties. It is useful in treating chemical sensitivities and should also be checked on patients when AK findings indicate involvement of chlorine. It can be helpful in depression, hypertension, gout, and obesity.

**Dosage: 1 capsule three times daily**



# Michael Lebowitz D.C.

## **THIOCID® AND THIOCID-300®**

Thiocid contains 100 mg of Alpha-Lipoic Acid; Thiocid-300 has 300 mg. Taken orally it is rapidly converted to DHLA, which has strong antioxidant activity in both water- and fat-soluble domains. Besides neutralizing reactive oxygen species, it also regenerates reduced glutathione and vitamin C. It is also a good product for metal toxicity, especially cadmium, copper, and mercury. It can complement mercury chelators such as Metaplex, Captomer, and Glutathione-SR, as it increases mercury biliary excretion. It may also be indicated in hepatic disease and diabetic neuropathy. In people with thiamin deficiencies (alcoholics, etc.), B-Complex #1 should be given simultaneously.

**Dosage: 2-4 capsules daily**

## **TRACE MINERALS**

This product is an excellent trace mineral formula. It tests often in musculoskeletal cases, especially with ligamentous involvement, and also for heel pain.

**Dosage: 2 capsules daily**

## **TRAUMOGEN®**

This is a great combination product to facilitate post-injury and post-surgery healing. It should also be taken pre-surgery to begin maximizing the levels of these critical nutrients for fast and efficient healing.

**Dosage: 4 capsules daily pre-surgery; up to 12 capsules daily post-surgery or with acute injuries**

## **L-TRYPTOPHAN**

L-Tryptophan increases levels of serotonin, melatonin, endorphins, dopamine, and norepinephrine. Symptoms of deficiency can include depression, sleep disorders, anxiety disorders, obesity, carbohydrate craving, headaches, fibromyalgia, epilepsy, and Parkinson's disease. The depression type it is the most effective with is the type where the person wants to be around others and tell them all their problems, as opposed to the person who wants to be isolated (who typically respond to L-Tyrosine). Sometimes 5HTP tests better than L-Tryptophan and sometimes L-Tryptophan tests better. From an AK standpoint, when you suspect the patient needs L-Tryptophan or 5-HTP and they do not test, have the patient close their eyes and retest and you will often find the deficiency.

**Dosage: 1-3 capsules daily in the evening, away from food**

## **L-TYROSINE**

I screen all patients suffering from fatigue, allergies or immune disorders, and addictions for L-Tyrosine. It is necessary for both norepinephrine and enkephalin synthesis. Because of this, many patients with food sensitivities, low energy, low pain threshold, depression, and addiction to foods, chemicals, drugs are low in L-tyrosine. Almost every environmentally ill patient tests for this or Iodine-Tyrosine at some point in his or her treatment program. Overweight patients benefit from it and approximately 60 percent of my female patients ages 30 and up test positive. It often brings dramatic clinical improvement. Most patients who suffer from the depression type where they want to be left alone and more or less hide, test positive on it. I give it without food typically on awakening and mid-morning. Patients undergoing psychotherapy or NET type treatments can also greatly benefit from this amino acid. L-Tyrosine is one of the most used supplements in my practice.

**Dosage: 1 capsule three times daily**

## **ULTIMATE-E®**

This is a product of mixed tocopherols. Personally, I have found that in AK testing many patients prefer mixed tocopherols to straight vitamin E. Studies suggest that mixed tocopherols can aid in arterial plaque reversal, lower cholesterol, inhibit cancer, and are a stronger antioxidant than just d-alpha tocopherol. I believe you will find many patients will test positive on this product.

**Dosage: 1-2 capsules daily**

## **ULTRACHROME-500®**

Until recently, chromium picolinate was the preferred form of chromium to use because, as a picolinate, it had increased absorption from the gastrointestinal tract compared to chromium in other forms. It had approximately the same insulin-potentiating effect as other chromium products, but because of the increased uptake it performs better. Ultra-Chrome appears to have increased absorption while at the same time its insulin-potentiating effect is 3 times that of the other chromiums, including picolinate. I find it tests positive in more cases than picolinate does, and I use it for the same type of patients I would use other forms of chromium for.

**Dosage: 1-2 capsules daily**

## UNDECYN

Undecyn is a potent antifungal composed of: (1) Calcium Undecylenate, the calcium salt of the fatty acid undecylenic acid, to support healthy vaginal and gastrointestinal flora; (2) time-release Betaine HCl for optimal pH effectiveness to help maintain its full potency throughout the gastrointestinal tract; and (3) Bentonite Clay to absorb endotoxins and mycotoxins.

**Dosage: 1 capsule three times daily; with higher doses in severe cases**

## VANOXYL 5® AND VANOXYL 25®

These two products contain vanadyl sulfate. Vanadium in this form has been shown to be capable of mimicking most of the effects of insulin, including lowering blood sugar levels. It also appears to stimulate the activity of bone mineralization-promoting osteoblasts. In some patients, vanadyl sulfate decreases the liver's synthesis of cholesterol. Deficiency of this mineral has been associated with depressed growth, abnormal bone development, heart disease, and cancer. I have tested vanadium on many patients and find a reasonable percentage of patients show a need for it, in the sense that a weak muscle will strengthen via muscle testing.

**Dosage: 1 capsule daily, depending on testing results**

## VENOCAP®

I have been using this product for a number of years and have had good clinical response in treating both hemorrhoids and varicose veins. Venocap contains extracts of the following herbs that have been shown to improve venous integrity: Gotu Kola, Horse Chestnut, Witch Hazel, and Butcher's Broom, as well as the flavonoid Diosmin and grape seed phytosome. Of course, in these cases we also check liver function, food sensitivities, and nutrient status and treat accordingly.

**Dosage: 2 capsules daily**

## VITAMIN A

For many years Thorne Research did not put Vitamin A in its products because there was not one available that tested free of all preservatives (BHA, BHT, etc.). Thorne takes the stance that if a pure source is not available, it is better not to sell it (although no one would know because you don't have to list a preservative on the label when the manufacturer, not the supplement company, adds it). Finally, however, a preservative-free vitamin A is now available. To quote Cornatzer: "Vitamin A is vital for promotion of general growth, differentiation of epithelial tissues, visual function, and reproduction. Vitamin A is necessary for the maintenance of spermatogenesis, bone growth (activity of osteoblast), the mucus secreting cells of epithelia, and prevention of kerati-

nization. . . . Retinoids are able to maintain a normal level of cellular differentiation in untransformed epithelial, but are also capable of preventing and reversing carcinogenesis in a number of tumors. . . . In the absence of Vitamin A the cells of the epithelial tissues atrophy and some of the basic cells proliferate. This produces a keratinized epithelium. This type of epithelium is susceptible to bacteria invasion." Signs of vitamin A deficiency include abnormal dryness of the skin, night blindness, periorbital encrustation, diarrhea, weight loss, decreased sperm count, and interference with maintenance of pregnancy.

**Dosage: 1 capsule daily**

## VITAMIN C WITH FLAVONOIDS

I prescribe Thorne's pure Buffered C Powder quite often, as well as their Buffered C Powder (especially in cases of acute reactions to foods and environmental contaminants). For those who believe that bioflavonoids should be included, this product contains 500 mg of pure Ascorbic Acid plus 75 mg of citrus bioflavonoids.

**Dosage: 1-3 capsules daily**

## VITAMIN D / K2 LIQUID

This is a preservative-free, highly absorbable combination that supplies 500 IU of vitamin D3 and 100 mcg of vitamin K2 per drop. This is a great product for bone and cardiac health. This product may also test positive in pregnant women and patients with indoor lifestyles who eat an abundance of refined foods.


**Dosage: 2 drops one to three times daily**

## DOUBLE-STRENGTH ZINC PICOLINATE

Check it in the following problems: kinin-mediated allergies, prostaglandin imbalances, recurrent cranial faults, thyroid and adrenal problems, leukotriene excess, and fatigue. A zinc deficiency is also associated with acne, anorexia, apathy, sterility, irritability, impotence, impaired wound healing, and eczema. Be certain when you give zinc to also monitor copper levels so you do not create a copper deficiency. Also check Zinc Citrate, since it often shows when Zinc Picolinate is negative. Zinc and magnesium are the two single minerals that I prescribe most.

**Dosage: 1 capsule daily**





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