

Clinical Experiences with New Prostate Support Formula Mitchell A. Fleisher, M.D.

ProstaPhase® is a unique, potent, TCM botanical formulation based on the ancient “essence tonic” tradition of Traditional Chinese Medicine. Essence tonics are formulas comprised of medicinal herbs in various combinations specifically designed to preserve physiological systems, and to maintain and support healthy, balanced functioning throughout the aging process.

I have found this TCM formulation to be remarkably effective for the support and relief of genitourinary problems in men associated with the prostate gland. Such problems can include feelings of urgency, increased frequency of urination, nocturia (waking at night to urinate), hesitancy (delayed urinary flow), weakened urinary stream and post-void dribbling. These issues are all related to benign prostatic hypertrophy, or hyperplasia (BPH), a condition that occurs when swelling and/or

inflammation of the male prostate gland causes it to compress the bladder while squeezing down and constricting the urethra as passes through the prostate gland, thereby impeding and reducing urinary flow.

“After taking the formula for eight weeks my PSA level had dropped to 0.7 – a very significant 71 percent reduction!”

Case 1

My first observation of this unique formula arises from my own, very personal experience with prostate issues. At about the age of 55 I was having to get up two to three times every night to urinate. I also noticed some hesitancy in initiating the

urinary stream in the early morning hours, and it was taking longer to empty my bladder. In addition, I was occasionally experiencing some burning and irritation during urination. But, by far, the most annoying symptom was the post-urination dribbling.

I began taking 4 capsules daily, and maintained a careful clinical record of my progress, which I recorded carefully. After five weeks of taking the formula I observed the following improvements: the prolonged emptying of my bladder had diminished by 50%, my nocturia had dropped by 56%, hesitancy by 67%, post-urination dribbling by 22%, and the irritation during urination was completely gone. By the eighth week my post-urination dribbling had reduced by about 70%, which was quite tolerable, and the improvement in the other areas of prostate function were steadily maintained.

Most significantly, from my perspective, was the noted improvement I recorded in my PSA levels. PSA (*Prostatic Specific Antigen*) is a protein produced by the cells of the prostate gland that is present in small quantities in the blood serum of men with healthy prostates, but often

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Preventing Drug-Induced Nutrient Depletion Hyla Cass, M.D.

A little known, but potentially life-saving fact is that common medications deplete your body of a host of vital nutrients essential to your health. In this practical guide I’ll show you how to avoid drug-induced nutrient depletion and discuss options for replacing nutrient-robbing medications with natural supplements.

Americans have been called a pill-popping society, and the statistics bear this out. Nearly 50 percent of all American adults regularly take at least one prescription drug, and 20 percent take three or more.¹ Our increasing reliance on prescription medications has contributed to the growing problem with nutrient depletion. The truth is that every medication, including over-the-counter drugs, depletes your body of specific, vital nutrients. This is especially concerning when you consider that most Americans are already suffering from nutrient depletion. Additionally, many of the

conditions physicians see in their everyday practice may actually be related to nutrient depletion. The good news is that, armed with information and the right supplements, you can avoid the side effects of nutrient depletion, and even better, you may be able to control and prevent chronic diseases, such as diabetes, cardiovascular disease and osteoporosis.

A Common Scenario

I have seen case after case of patients who have experienced nutrient loss from taking prescribed medications. Too often, neither the patients nor their doctors are aware that the medications are the real cause of their symptoms.

For example, Kathy, a 57-year-old retired schoolteacher, was being treated by her internist with three medications: the thiazide diuretic, *Diuril*, for high blood

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Prostate Support

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elevated in the presence of prostate issues. Prior to beginning the evaluation program, my PSA level was 2.4, and after taking the formula for eight weeks my PSA level had dropped to 0.7 – a very significant 71% reduction! I was duly impressed with this significant, subjective and objective, clinical response, and am continuing to take the formula as a part of my daily, health-promoting regimen.

Case 2

My second case, W.W., is a 63-year-old merchant marine engineer who came to me complaining of marked weakening of his urinary stream, accompanied by prolonged and incomplete bladder emptying, frequent need to urinate, excessive urine production (polyuria), nocturia (waking up at night to urinate), painful urination (dysuria) and major post-urination dribbling, all clear-cut symptoms of BPH. I prescribed the TCM formula, two capsules twice daily, and instructed him to keep a careful record of his symptoms.

Since his business involved prolonged trips overseas, he did not return for follow-up care for about six months. When he came in for his next appointment, W. informed me that he was so pleased with the benefits he had experienced that he had, on his own initiative, continued to participate in the formula evaluation program.

After W. had taken the TCM formula for eight months, I ordered a blood test to measure his percent-free PSA ratio. The percent-free PSA ratio test measures how much PSA is circulating by itself (unbound) in the blood and how much is bound together with other blood proteins.

This test, which estimates the risk of developing severe prostatic problems, revealed that W.'s percent-free PSA ratio had improved by 8%, which is clinically significant. Finally, at his recent follow-up visit, W. related to me that his weak urinary stream had improved by over 70%, and all his other prostate complaints had totally resolved. When asked how he felt about his progress and prostate health, he remarked, "I think this formula is great!"

Case 3

RG is a 45-year-old equestrian trainer who spends a lot of his time horseback-riding. He came to my clinic complaining of chronic pain and a sensation of uncomfortable fullness in his perineum, along with intermittent urgency, increased frequency, nocturia, hesitancy and bladder heaviness that became notably worse after a day on horseback. RG was very worried that his days in the saddle were numbered.

His urologist diagnosed BPH, non-bacterial prostatitis and prostatic dysuria (pain in the prostate gland). Several courses of antibiotics and NSAIDs (non-steroidal anti-

inflammatory drugs) were of no benefit. His initial PSA was 3.2, suspicious for his age, and his percent-free PSA ratio was 21 percent, placing him in a higher risk category. I put RG on a course taking 3 capsules twice daily, as well as *QB-Zyme Pro* (a protease enzyme-bioflavonoid complex), 3 capsules twice daily.

After four weeks RG reported that his chronic pain and the uncomfortable sensation of fullness in his perineum had diminished by half, so we continued with the regimen. By the next follow-up visit, about two months later, RG reported that the chronic pain and sensation of uncomfortable fullness in his perineum, as well as his intermittent urgency, urinary frequency, nocturia, hesitancy and bladder heaviness were all at least 85 percent better to his amazement. He also noted that the *QB-Zyme Pro* greatly helped him with the chronic inflammation, aches and stiffness in his lower back, hips, knees and ankles caused by repetitive horseback-riding injuries.

Repeat laboratory testing revealed that his PSA level had dropped to 1.7, an improvement of 47 percent, and the per-

Case 4

cent-free PSA ratio was now 26 percent, representing a 20 percent reduction in his risk for more serious prostate problems. He was indeed a very happy horseback-rider, and he stated that he was convinced that the TCM formula and *QB-Zyme Pro* had "successfully resurrected his career as an equestrian trainer." They are now a part of his daily self-care regimen.

After eight weeks of taking the TCM formula, two capsules twice daily, he reported significant improvement in all his symptoms, including a greater than 50% reduction in the prolonged and incomplete bladder emptying and post-urination drib-

bling, as well as a 37% improvement in his urinary stream. His other BPH symptoms were also reduced by about 20 to 40%. JJ was pleased with his progress and has continued taking the TCM formula with continued benefit. Interestingly, his cardiovascular disease has improved without any change in the conventional, allopathic medications prescribed by his cardiologist.

In summary, I am continually researching and seeking out new, cutting edge, clinically effective, scientifically sound, nutraceutical agents (pharmaceutical-grade nutritional supplements) for the restoration, enhancement and maintenance of optimum health and well being. It is my professional opinion that this unique TCM formula represents a major advance in the natural, safe, non-toxic and cost-effective support of prostate health. My patients and I are all happy with the benefits we have and continue to experience.

Buyers Guide: *ProstaPhase* is available from Tango Advanced Nutrition, 866-778-2646. *QB-Zyme Pro* is available from Progressive Labs, 800-527-9512, order #7876.

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Nutrient Depletion

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pressure; *Fosamax* for osteoporosis; and the beta-blocker, *Tenormin*, for heart palpitations.

Kathy was referred to me because she suffered from fatigue, anxiety, depression and insomnia. I couldn't find an obvious psychological explanation for these symptoms, except perhaps for the stress of her physical illnesses. The likeliest cause of her symptoms was the drugs themselves. So, rather than adding an antidepressant, an anti-anxiety pill or sleeping agent, I investigated the known nutrient depletions associated with these medications.

Any one of her three medications could be depleting her potassium and magnesium levels, resulting in arrhythmias, hypertension, fatigue and depression. Additionally I discovered that the diuretic she was taking could be depleting her zinc levels. Follow-up lab tests confirmed that Kathy was deficient in three essential minerals: magnesium, potassium and zinc.

Based on the lab results, Kathy's internist agreed to oversee her medications while I supervised her nutritional regimen. Daily doses of magnesium, zinc and potassium, in addition to a high-potency multivitamin, resolved Kathy's "psychiatric" symptoms. Once her mineral levels were restored, Kathy's energy and mood were back to normal. Best of all, not only was she spared the burden of taking additional medications, she was able to lower the doses of the three she was already taking.

Drug-Induced Nutrient Depletion is Widespread

I see cases similar to Kathy's more frequently than I'd like. Physicians often tell their patients that symptoms arising from nutrient depletion are simply "part of the illness" or just signs that they're "getting older." To make matters worse, physicians frequently try to address the symptoms arising from drug-induced nutrient depletion by prescribing even more drugs, further compounding the problem.

To understand the role various medications play in causing nutrient depletion, we must first look at the variety of nutrient-depleting mechanisms in pharmacy.

Many drugs, such as the stimulants *Ritalin* (methylphenidate) and *Adderall*, are prescribed for attention deficit disorder. These can reduce appetite. This, in turn, decreases the intake of beneficial

nutrients. Some antidepressants also tend to have this appetite-reducing effect.

On the flip side, some drugs can deplete nutritional status by increasing the desire for unhealthy foods, such as refined carbohydrates. Many of the neuroleptics (anti-psychotic drugs) and some antidepressants cause insulin resistance or metabolic syndrome, with results in blood sugar swings. Patients then crave simple carbohydrates, such as sugar, bread and pasta. Steroid drugs, including those given by an inhaler, can create similar issues as well.

Certain medications reduce the absorption of specific nutrients in the gastrointestinal tract by binding to them before they're absorbed into the bloodstream. The antibiotic, tetracycline, for example, can block absorption by binding with minerals, such as calcium, magnesium, iron and zinc in the GI tract.²

Weight loss drugs and cholesterol-lowering medicines similarly bind to fats, preventing them from being absorbed. Drugs that treat acid reflux or heartburn raise the pH environment of the upper GI tract, which reduces absorption of needed vitamins and minerals. This is especially problematic among the elderly, who often are already low in stomach acid.

Nutrients are essential to the metabolic activities of every cell in the body. They're used up in the process and need to be replaced by new nutrients in food or supplements. Some drugs deplete nutrients by speeding up this metabolic rate. These drugs include antibiotics (including penicillin and gentamicin) and steroids, such as prednisone, and the gout medication, colchicine.

Other drugs block the nutrient's effects or production at the cellular level. In addition to the intended effect on enzymes or receptors, medications can influence enzymes or receptors that help process essential nutrients. For example, widely prescribed statin drugs block the activity of HMG-CoA, an enzyme that's required to manufacture cholesterol in the body. This action also depletes the body of coenzyme Q10 (CoQ10), which requires HMG-CoA for its production. This has a serious negative impact on muscle and heart health.

Drugs also can increase the loss of nutrients through the urinary system. Any drug that does this can drain the body's levels of water-soluble nutrients, including B vitamins and minerals, such as magnesium and potassium. The major offenders are medications to treat hypertension, particularly the diuretics that reduce blood pressure by increasing the volume of water flushed out of the body.

Common Nutrient Robbers

The bottom line here is, we need to be aware of drugs that are nutrient robbers. The following provides some of the major drug categories:

● Anti-Hypertensives

The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT)² concluded that thiazide-type diuretics are better than ACE inhibitors and calcium-channel blockers at preventing heart attacks in high-risk people. Physicians often prescribe potassium to offset the well-known potassium depletion associated with this prescription.

However, these diuretics are also known to deplete other minerals, such as magnesium, sodium and zinc, which are seldom specifically supplemented. One study found hypokalemia (low potassium) in 8.5 percent of people treated with thiazide diuretics and hyponatremia (low sodium) in 13.7 percent in the same patient population.^{2,3} This indicates the importance of testing levels, and not simply restricting sodium.^{2,3}

Thiazide diuretics also decrease magnesium in approximately 20 percent of patients⁴ and can significantly decrease serum zinc.⁵ Loop diuretics deplete potassium, magnesium, calcium, zinc, pyridoxine, thiamine and ascorbic acid.

One study showed that thiamine deficiency was found in 98 percent of patients with congestive heart failure who took 80 mg of furosemide daily, and in 57 percent of patients who took just 40 mg daily. This shows a dose relationship. Furosemide also increases excretion of ascorbic acid and pyridoxine.⁶

For these patients, consider the following daily supplements: calcium (700 mg), magnesium (250 mg to 500 mg), potassium (100 mg), vitamins C (1,000 mg), B1 (320 mg), B6 (10 mg to 25 mg) and zinc (25 mg).

● Beta Blockers

Beta blockers are among the oldest classes of antihypertensive drugs. They lower blood pressure by reducing the effects of catecholamines, thereby reducing the force and speed of the heartbeat. Beta-adrenergic blockers deplete CoQ10 by interfering with the production of this essential enzyme for energy production.⁷ This lack of CoQ10 is particularly dangerous, considering that the target condition is cardiovascular disease. Since the heart is particularly rich in CoQ10-hungry mitochondria,

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the energy factory of the cell, the end result can be heart failure. To offset this negative side effect you can take CoQ10, 100 mg to 300 mg daily with fat-containing food for best absorption.

These drugs also reduce production of melatonin (N-acetyl-5-methoxytryptamine). Produced from serotonin at night in the pineal gland by stimulating adrenergic beta1- and alpha1-receptors, this neurohormone regulates circadian rhythm and promotes sound sleep. By blocking beta receptors, these drugs may inhibit the release of the enzyme serotonin-N-acetyltransferase, which is necessary for the synthesis of melatonin, resulting in sleep disturbance.⁸ Take melatonin (3 mg) at bedtime to counter this effect.

● Cholesterol-Lowering Drugs

Statin drugs are the most widely prescribed medicines for lowering cholesterol. In fact, *Lipitor* (atorvastatin) is the best-selling drug on the planet. However, physicians need to address a serious risk. Statins deplete the body of CoQ10 with the following potential side effects: heart failure, muscle pain and weakness, irritability, mood swings, depression and impotence.⁹⁻¹¹ The last few side effects may also be due to lack of cholesterol, which is needed for brain cell and hormone production.

Therefore, people on statins should take 100 mg to 200 mg of CoQ10 daily to counter this potentially fatal depletion.

While no specific recommendations from the pharmaceutical industry exist, one pharmaceutical statin manufacturer observed the depletion effect in early research. This manufacturer holds a patent on a combination statin and CoQ10. Sadly, the patents have never been activated, nor have any warnings been provided by the U.S. pharmaceutical industry.

Health Canada, on the other hand, which is the federal department responsible for helping Canadians maintain and improve their health, requires that manufacturers of statin drugs include warnings on patient safety information sheets about the potential for myopathies and impaired cardiac function.

● Acid Blockers

Antacids, histamine-2 receptor antagonists (H2 blockers) and proton-pump inhibitors (PPIs) are commonly prescribed for treating heartburn, gastro-esophageal reflux

disease (GERD) and peptic ulcers. Numerous studies indicate that these drugs cause several nutrient deficiencies.

For example, aluminum antacids (*Maalox*, *Mylanta* and *Gaviscon*) and calcium carbonate (*Caltrate*, *Dicarbosil*, *Roloids*, *Titralac* and *Tums*) act by buffering or neutralizing the acid pH of the stomach. Unfortunately, this reduction of stomach acid impairs the breakdown of the ingested food into its component nutrients.

Both PPI and H2 blockers significantly increase the risk of vitamin B12 deficiency in elderly patients. B12 requires adequate gastric acid for absorption. This population is already prone to deficiency in intrinsic factor, necessary for B12 absorption.¹² This lack of stomach acid also decreases the absorption of folic acid, iron and zinc.^{13,14} H2 blockers (*Tagamet*, *Pepcid*, *Axid* and *Zantac*) decrease acid secretion by blocking histamine.

“One study showed that high doses of PPIs, used for a year or more, could make people 2.5 more times susceptible to hip fracture than control subjects.”

Proton pump inhibitors (PPIs, *Prilosec*, *HK-20*), the most potent of acid-reducing medications, are increasingly popular. They reduce stomach acid production by up to 99 percent by decreasing the action of proton pumps, which are part of the stomach lining's acid-making machinery. This, however, can strongly interfere with nutrient absorption.

One study showed that high doses of PPIs, used for a year or more, could make people 2.5 more times susceptible to hip fracture than control subjects. Lower doses decreased the risk factor to 1.5 times that of nonusers. The longer these drugs are used, the higher the fracture risk. This heightened risk of osteoporosis is probably due to the drastic drop in calcium and vitamin D absorption that occurs with these drugs. Some experts believe the drugs themselves may hamper the body's ability to build new bone.¹⁵

For anyone taking acid-reducing medication, I recommend daily intake of vitamin D3 (2,000 IU or more based on lab testing), B12 (200 mcg), folic acid (800

mcg), calcium (700 mg), chromium (500 mcg), iron (15 mg), zinc (25 mg to 50 mg) and phosphorus (700 mg).

● Oral Hypoglycemics

Metformin (*Glucophage*, *Glucophage XR* and *Glucovance*) enhances the action of insulin in cases of insulin resistance, allowing glucose to enter the cells. This reduces elevated blood sugar. A study published in the *Archives of Internal Medicine* showed that diabetics on metformin had B12 levels that were less than half those of control subjects. The longer the drug had been used and the higher the dose, the greater the drop in B12.¹⁶

In people with Type 2 diabetes who take metformin therapy, serum folic acid levels decrease 7 percent and vitamin B12 levels decrease by 14 percent.¹⁷ B12 and folic acid depletion also increases homocysteine levels. In addition, metformin may deplete CoQ10, thereby increasing heart disease risk. To reduce these effects, patients should take vitamin B12 (800 mcg), folic acid (400 mcg) and CoQ10 (100 mg daily).

● Psychotropic Medications

For antidepressants to work optimally, an ongoing supply of the B vitamins must be available as co-factors to help manufacture the needed neurotransmitters, such as serotonin and dopamine.^{18,19} So, while these drugs may not directly deplete B vitamins, patients on these medications should ensure they get enough of these vitamins. In addition, be aware that lithium carbonate, used for treating bipolar illness, depletes folic acid (take 800 mcg) and inositol (take 500 mg bid).

● Hormone Replacement Therapy

Many baby boomers are on hormone replacement therapy (HRT), which can deplete vitamins B6 and B12, folic acid and magnesium. These nutrients are critical for heart health, as well as for mood. Rather than an antidepressant prescription, these women should be given the appropriate supplements to restore balance. I have seen many women do well once these nutrient depletions were addressed. This applies to younger women on oral contraceptives as well.

For women on standard HRT (estrogen and progesterone, orally, including as an oral contraceptive, or as a transdermal skin cream) I may also recommend calcium (700 mg daily), folic acid (400 mcg to 800 mcg), magnesium (500 mg), vitamin B2 (25 mg), vitamin B6 (50 mg),

vitamin B12 (500 mcg to 1,000 mcg), vitamin C (500 mg to 1000 mg) and zinc (25 mg to 50 mg).

Antibiotics

Antibiotics deplete biotin, inositol, vitamins B1, B2, B3, B5, B6, B12 and vitamin K. Additionally, fluoroquinolones and all floxacins (including *ciprofloxacin* or “Cipro”) deplete calcium and iron. Tetracyclines (suffix, *-cycline*) deplete calcium and magnesium. Trimethoprim-containing antibiotics (brand names *Trimplex*, *Proloprim* or *Primsol*) deplete folic acid. Penicillins (suffix, *-cillin*) deplete potassium. Aminoglycosides, such as gentamicin, cause imbalances of magnesium, calcium and potassium.²⁰ In fact, one study showed that gentamicin causes increased excretion of calcium by 5 percent and magnesium by 8.4 percent.²¹

When you take antibiotics, consider a B vitamin complex along with it. Or take a multivitamin that contains 25 mg of B1 (thiamine), 25 mg of B2 (riboflavin), 50 mg of B3 (niacin), 50 mg of B6 (pyridoxine), 400 mcg to 800 mcg of folic acid, 10 mcg of B12, and 50 mg each of biotin and B5 (pantothenic acid).

Inositol is part of the B vitamin complex, and is likely to be included in a B vitamin or multivitamin formulation. Otherwise, take 500 mg of inositol. (The RDA is 100 mg per day.) In addition, either take a multivitamin that includes magnesium (500 mg), calcium (700 mg) and potassium (100 mg), or take them separately.

Antibiotics can disrupt the natural bacteria flora in the digestive system, killing “good” bacteria, including *Lactobacillus acidophilus* (*L. acidophilus*) and *Bifido-*

bacterium bifidum (*B. bifidum*). These are probiotics or bacteria that normally live in and on the human body, concentrated mostly in the digestive and genital/urinary systems. Choose a supplement that contains at least 1 billion live organisms per daily dose.

You also may consider 50 mcg daily of vitamin K, which is normally made by friendly intestinal bacteria. Vitamin K is required for proper blood clotting. Deficiency is rare, but when it occurs, life-threatening bleeding can occur from the smallest injury. Vitamin K also plays a part in osteoporosis prevention.

Summary

Drug-induced nutrient depletion is far more common than has been acknowledged. In evaluating patients’ symptoms, doctors must assess whether symptoms are due to the illness, to the side effects of the drugs, or to drug-induced nutrient depletion. Considering the inadequate nutritional status of the majority of the population, we must remember that the illness itself may be due, in part, to nutrient deficiency. For insurance, it is easiest to provide baseline coverage: a daily high potency multivitamin mineral formula, CoQ10 (200 mg), omega-3 fatty acids (2 grams) and additional vitamin D and probiotics.

The bottom line: Physicians must look more deeply and determine underlying causes to determine whether drugs are harming patients – and what we can do to reverse these effects. As a consumer, be aware of these drug-nutrient depletions, and do what you can to avoid taking medications whenever you can, using natural products instead.

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Dangers of “Prescription Multiplication”

According to Michael Wincor, an associate professor of clinical pharmacy, psychiatry and the behavioral sciences at the University of Southern California, it is not uncommon for patients to receive multiple prescriptions from different specialists, each focusing on a specific symptom. “That’s what I call prescription multiplication,” says Wincor, and it can be potentially dangerous for the patient, especially if the various physicians aren’t communicating with one another.

“A patient could have adverse effects and think the medical condition is getting worse, when in fact it is a side effect of several different medications which are all interacting in a negative way,” Wincor says. “When you’re on more than 20 drugs all at the same time, you’d want to question whether or not that’s really necessary.”

According to the Kaiser Family Foundation, prescription drug usage in the United States is continuing to rise. A recent report finds the number of prescriptions filled each year increased by 39% between 1999 and 2009, and the amount of money spent was \$234 billion in 2008. The average American fills 12 prescriptions each year.

“Many side effects from drug interactions (not all) are exacerbations of known side effects of the single drugs that are made worse by the two drugs together,” says Dr. Russ Altman, a professor of bioengineering, genetics and medicine at Stanford University who co-authored a study in

the journal *Clinical Pharmacology and Therapeutics* that found a widely prescribed antidepressant used in conjunction with a common cholesterol-lowering medication caused unexpected increases in blood sugar levels. Altman says most drugs are tested and approved independently, and it can be difficult to predict the side effects of drug combinations. “It is very hard to find these in advance of release of the drug, because sometimes these effects will only manifest in the context of large numbers of patients,” he explains.

“I don’t think people really understand the nature of medication; the (drugs) will, by definition, have some toxic, collateral side effects,” says Dr. Douglas Bremner, a professor of psychiatry and behavioral sciences at Emory University.

Bremner says medications clearly do a lot of good and are needed in many situations, but warns that when a patient is on too many at once, there are serious questions about whether the therapeutic benefits outweigh the collateral damage. “When you end up on 12 prescription medications you need to seriously look at what the situation is,” he says. “At that point, there’s no way of knowing what’s causing what anymore.”

Wincor recommends patients fulfill all their prescriptions at one pharmacy, especially if they are receiving treatment from multiple practitioners. “Often the pharmacist is the best point person because they’re the last stop before the prescription hits the hand of the patient and are ready to be taken.”

Nutrition Science Update

How Vitamins and Minerals May Prevent Age-Related Diseases

Severe deficiency of vitamins and minerals is not common in developed nations, but modest deficiency is very common and often not taken seriously. New research published online in the *FASEB Journal* may change this by revealing how damage accumulates over time as a result of vitamin and mineral loss, leading to age-related diseases.

Researchers reached their conclusions after compiling and assessing scientific evidence to test whether selenium-dependent proteins are more resistant to selenium deficiency than those that are less essential.

They discovered a highly sophisticated array of mechanisms at cellular and tissue levels that, when selenium is limited, protect essential selenium-dependent proteins at the expense of those that are nonessential. They also found that mutations in selenium-dependent proteins caused by modest selenium deficiency are shared by age-related diseases including cancer, heart disease, and loss of immune or brain function. Their findings will inform attempts to better understand links between vitamin and/or mineral deficiencies and age-related diseases.

“This paper should settle any debate about the importance of taking a good, complete, multivitamin every day,” said Gerald Weissmann, M.D., Editor-in-Chief of the *FASEB Journal*. “As this report shows, taking a multivitamin that contains selenium is a good way to prevent deficiencies that, over time, can cause harm in ways that we are just beginning to understand.”

Source: J. C. McCann, B. N. Ames. *The FASEB Journal*, 2011.

Increasing Daily Calcium Intake Does Not Reduce Risk Of Fractures In Later Life

While moderate amounts of calcium (around 700 mg a day) are vital for maintaining healthy bones, there is no need to start increasing calcium intake in order to reduce the risk of fractures or osteoporosis in later life, according to paper published on the *British Medical Journal* on May 24.

As women age, their bones lose calcium and they are more at risk of fractures and osteoporosis. As well as causing individual suffering, fractures are a huge drain on health services. With aging populations, this burden will increase in the coming years and therefore preventing them is a major public health issue.

The importance of increasing calcium intake to compensate for the loss of calcium has been debated for a long time and there is still no clear advice. This is reflected by the wide range of daily calcium recommendations, from 700 mg to 1,200 mg in the United States.

In order to investigate the link between long-term dietary calcium intake and the risk of fractures, the researchers reviewed data from a large population study of Swedish women carried out in 1987.

Over 61,433 women born between 1914 and 1948 took part in the Swedish Mammography Study. During the 19 year period in which the participants were followed 14,738 women (24%) had a fracture, and of these, 3,871 women (6%) reported their first hip fracture..

In-depth knowledge of the participants' diet and calcium intake revealed that women had the lowest risk of having a fracture when they consumed around 750 mg a day of calcium. Significantly, fracture risk in women who started to increase their calcium intake over time did not decrease.

There is some evidence that high intake of calcium may actually *increase* the rate of hip fractures, though the authors stress that this result needs to be interpreted with caution.

The authors concluded that calcium intake greater than 700 mg per day did not further reduce the fracture and osteoporosis risk.

Source: E. Warensjo, L. Byberg, H. Melhus, et.al. *BMJ*, 2011; 342 (may24 1): d1473.

Ingredient in Apple Peels Prevents Muscle Weakening

Researchers have found a natural compound that might aid in preventing the muscle wasting that occurs with illness and aging. The findings, reported in the June issue of *Cell Metabolism*, identify a component of apple peels as a promising new drug candidate for the widespread and debilitating condition that affects nearly everyone at one time or another.

“Muscle wasting is a frequent companion of illness and aging,” said Christopher Adams of The University of Iowa, Iowa City. “It prolongs hospitalization, delays recoveries and in some cases prevents people from going back home. It isn’t well understood and there is no medicine for it.”

Adams’ team first looked at what happens to gene activity in muscles under conditions that promote weakening. Those studies turned up 63 genes that respond to fasting in both people and mice, and another 29 genes that are altered in the muscles of both people

who are fasting and those with spinal cord injury. Comparison of those genes to cells treated with more than 1,300 bioactive small molecules led the researchers to identify ursolic acid as a compound that might counteract muscle atrophy.

“Ursolic acid is an interesting natural compound,” Adams said. “It’s part of a normal diet as a component of apple peels. They always say that an apple a day keeps the doctor away...”

When the researchers gave ursolic acid to mice their experiments showed that ursolic acid could protect against muscle weakening as predicted. When ursolic acid was added to the food of normal mice for a period of weeks, their muscles grew. Those effects were traced back to enhanced insulin signaling in muscle and to corrections in the gene signatures linked to atrophy.

Animals given ursolic acid also became leaner and had lower blood levels of glucose, cholesterol and triglycerides. The findings therefore suggest that ursolic acid may be responsible for some of the overall benefits of healthy eating.

“We know if you eat a balanced diet like mom told us to eat you get this material,” Adams said. “People who eat junk food don’t get this.”

Source: Kunkel, S., Suneja, M., Ebert, S., et.al. mRNA Expression Signatures of Human Skeletal Muscle Atrophy Identify a Natural Compound that Increases Muscle Mass. *Cell Metabolism*, 2011; 13 (6): 627-638 DOI.

Heart Disease Linked with Phosphate Intake

Lowering phosphate intake in humans may reduce heart disease, according to a new study from the UK. Researchers have shown that cholesterol deposits in artery walls are increased following a higher phosphate diet, leading to narrowing of the arteries, one of the leading causes of heart attacks and strokes. The research demonstrates the importance of reducing phosphate levels in the human diet or possibly using drugs called binders or other agents that stop phosphate from being absorbed.

Food high in phosphate includes biscuits, cakes, sweets, dairy products and meats such as offal and veal. Lead researcher, Dr. Tim Chico, said: “This is a very early, but exciting finding, as it suggests that by reducing the amount of phosphate in the blood we may have discovered a new approach to reducing heart disease.”

Source: Dietary Phosphate Modulates Atherogenesis and Insulin Resistance in Apolipoprotein E Knockout Mice. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 2011.



Letters

John Steinke, L.Ac.

Client and 88-Year-Old Mother Pleased with CALM Formula

Dear John,

We would like to share our thoughts on Dr. Cass's CALM formula. My mom is 88-years-old and has lived with a lifetime of nervous system problems; fear of death, negative thoughts in her mind, nerves jitters, panic attacks, etc.

She has been taking one of the major benzodiazepines, as prescribed by her doctor, for many years. Since she began taking Dr. Cass' CALM formula she hasn't had the need to take her prescription drugs. She takes one CALM in the morning and another before bed and she remains calm. She says that she doesn't feel the jitters in her body like she usually does. And I've noticed that she is no longer talking about her nervous feelings, and she hasn't awakened me at night, in a state of panic and fearing death, since she began taking Dr. Cass' formula. This is a big improvement and we feel blessed that CALM is working on a beautiful level to help my mom.

I would also like to share my personal experience with CALM. Years ago I had a near-death experience while on a river-rafting trip. Ever since I become deeply fearful whenever I'm in deep water or snorkeling. I get scared and my mind starts to "chatter," telling me that I have to put my feet down. I am a good swimmer and a Red Cross Water Safety Instructor, so it's not that I don't know how to swim that is causing me to feel such fear.

Recently I went out on an all day boat and snorkeling trip in Hawaii. I took a CALM in the morning. Then when it was time to go snorkeling I began to feel a bit nervous as the fearful thoughts began to come over me. Suddenly I felt a sense of strength and my negative thoughts were replaced by a sense of curiosity, allowing me to enjoy my snorkeling adventure again.

Also, there were big swells rocking the boat and people all around me were getting motion sickness. Instead of feeling nauseous like I normally would, I was comfortable being out on the rough waters. Thank you for this healing supplement, CALM.

Jocelyn P.

Client Pleased with AllerPhase for Pet Dander Issues

Dear John,

I have to say I'm quite impressed with *AllerPhase*. I have suffered with severe hay fever and allergies for years in Canada until I moved to California a few years ago. The allergens and pollens are different here than on the east coast so I considered myself pretty much allergy free once I moved.

Recently, I adopted a dog which does not shed and is a breed that I have been able to live with in the past; however he has dry skin and his dander has recently caused me to have sneezing fits, puffy eyes and on some occasions I have noticed myself wheezing and have had to use my inhaler. A friend recommended *AllerPhase* to me and I thought I'd try it out. I ran out of *Zyrtec*, so I had no choice but to try it! I took a couple capsules before bedtime and woke up with clear sinuses and eyes that were not itchy. And I could breathe.

I'm continuing to take the *AllerPhase* until my dog's dry skin improves and he stops itching. In the meantime, I will be recommending this product to friends and family back home in Canada who continue to suffer from severe allergies, especially since allergy season is just around the corner!

Margaret

AllerPhase Helps with Seasonal Irritants, Mosquito Bites

Dear John,

Recently I was in the middle of a very bad outbreak of my seasonal allergies (trees, pollen, grass). I've tried everything over the years – OTC, herbals, homeopathic, essence formulas, etc., – but nothing has ever worked. Lucky for me, I checked out the new Tango Advanced Nutrition store in my neighborhood in San Francisco.

One of the staffers told me about *AllerPhase*. I started with two capsules, two times per day. Four days later, I realized that I had no symptoms, so I reduced my dose to one capsule, two times per day until the bottle was empty. Still, I had no allergy attacks, but being a skeptic, I thought maybe the "triggers" had "left town."

A week later I was outside at dusk when I caught a mosquito taking a quick bite on my forearm. Uh oh, I thought! My life-long reaction to mosquitoes is awful – two days after a bite I break out in golf ball-sized, red, oozy, bumps and intense itching that can last for up to three weeks. Four days later I noticed the itty-bitty bite mark and realized that I'd had no reaction whatsoever. This was the first time that's ever happened. I was convinced, in an "ah-ha moment," that it was because of the *AllerPhase*.

The following week I cleaned out my dresser and closet, sorting through things that had been untouched for eons. Dust mites are another huge allergy trigger for me, and I know that dusty smell I encounter will send me into a day-long fit of sneezing and itchy, watery eyes.

I spent four to five hours cleaning and never had any kind of flare-up. It's been two weeks since and still no allergies, but I'm getting another bottle to keep on hand. It's pricey, but being allergy-free is "priceless."

Janis Reed

"Hot Flashes" Down From Five Per Day to One or Two Per Week

Dear John,

I am writing today to comment on one of my favorite formulas, *FemmePhase*. I am 52 years old and going through menopause. For the past two years, I have had a pretty rough time with hot flashes. Sometimes, they get so bad that I have to stop what I'm doing and take a break until they pass.

I do not want to try prescription medicine due to the worrisome side effects I've read about. So, for a couple of years, I've tried several natural, herbal formulas, none of which worked very well. They seem to stop my hot flashes for a day or so, then the hot flashes come back with a vengeance.

My husband and I use your sleep formula, *SleepCycle*, and I also use your allergy formula, *AllerPhase*, during allergy season. So, at my husband's urging, I decided to give your *FemmePhase* formula a try.

Wow, what a difference! The formula stopped my hot flashes in the first 24 hours. Instead of having four or five hot flash attacks a day, I now have maybe one or two

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attacks in a whole week!

I have recommended your formulas, including *FemmePhase*, to several friends. Everyone is having good results.

Thank you for creating the best herbal health formulas on the planet. I will always make Tango Nutrition a cornerstone in my personal health regimen.

Sincerely,
Lisa H., Hattiesburg, MS

"Remarkable Changes" in Gum Health with *GingiPhase*

Dear John,

Before discovering your fabulous product, *GingiPhase*, my gums were in critical condition. My dentist had informed me that the pockets were very large, ranging in size up to nine. The cost would be astronomical, not to mention the discomfort and long hours of dentistry to better this condition. I decided to try *GingiPhase* instead of the dental procedure.

After taking *GingiPhase* for two and a

half weeks, there was noticeable improvement and when my dentist rechecked my gums he was in utter amazement at the remarkable changes that he was seeing. Noting the real improvement that had taken place he asked me for the name of your company. I am so grateful for *GingiPhase*, and am really enjoying my healthy gums.

Linda Cambra

Improved Pockets, No Bleeding After Taking *GingiPhase*

Dear John,

I just went to the dentist this morning for my 3-month cleaning and had decided that I would not mention to him that I started taking *GingiPhase* a couple of months ago. Can you imagine my pleasure when he announced how wonderful and healthy my gums looked? I've been on a 3 month cleaning cycle for the past 10 years and am meticulous about my teeth, but have just not inherited very good gums! My pockets have shrunk and there was absolutely no bleeding with the deep, deep cleaning!

I'm so happy! Thank you!

L. Busalacchi

Acupuncturist Shares "Glowing Reports" on *SleepCycle*

Dear John,

With so many natural sleep aids on the market, many of my clients find it intimidating to walk into a vitamin shop or health-food store and try to choose a good one. Even with a friend's recommendation it can be tough, since no single herb or nutraceutical works across-the-board for everyone. By the time they come to me, they've usually tried at least a few, without success.

I have recommended a number of products over the years to my patients, but since it debuted, these days I always start (and usually stop) with *SleepCycle*. The dosage can differ from person to person – a few can get a good night's sleep with as little as half a capsule! – but nearly everyone I give it to sends back glowing reports.

So many of my patients love it, I now keep a careful eye on my *SleepCycle* stock – they don't like it when I run out! Thanks for another excellent product.

Don F. Gates, L.Ac.
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