

Effort to Lower A1C Levels with Drugs Increases Death Rate in Diabetics

Jim English

While diabetes is the leading cause of kidney failure, blindness and lower limb amputations not caused by accidents or trauma, the most serious threat facing diabetic patients is death from heart attack or stroke. Eighty percent of hospitalizations for patients with diabetes are for macrovascular disorders, such as coronary disease, cerebrovascular disease and peripheral vascular disease, and 75 percent of deaths in diabetics are cardiovascular death, mostly in patients with Type 2 diabetes. To put these numbers in perspective, while a 50-year-old patient with “average” blood pressure and cholesterol levels has a 7 percent chance of experiencing a heart attack in the next 10 years, a 50-year-old diabetic patient faces up to a 50 percent chance of having a heart attack in the next ten years.

ACCORD Trial Fails to Protect Diabetic Patients

In 2001, the National Institutes of Health (NIH) launched a trial to lower blood glucose levels in diabetic patients to reduce their risk for heart attack, stroke, or death from cardiovascular disease. The trial, called *Action to Control Cardiovascular Risk in Diabetes*, or ACCORD, involved over 10,000 Type 2 diabetic patients who had either been previously diagnosed with heart disease or had two or more risk factors for heart disease when they entered the study.

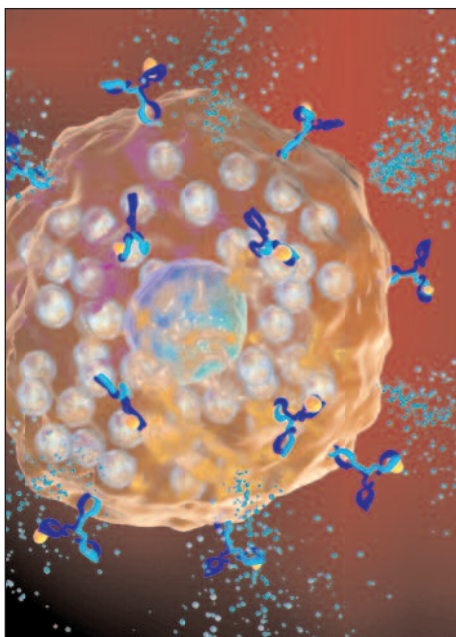
Participants were randomly assigned to one of two treatment groups. The first group of 5,123 participants was treated with standard drugs and insulin at levels generally approved as the standard for Type 2 diabetes. The second group, consisting of 5,128 participants, was assigned

to receive a much more aggressive form of treatment involving higher doses of the standard therapy. For both groups, study clinicians were permitted to use all major classes of FDA-approved diabetes medications, including metformin, thiazolidinediones (TZDs, primarily rosiglitazone), insulins, sulfonylureas, exenatide, and acarbose. Treatment goals in both groups were determined throughout the study by regular blood tests that measured patient A1C levels.

The A1C blood test gives diabetic patients an accurate way of monitoring glucose levels to better manage their blood sugar control. A1C, also known as glycosylated hemoglobin (HbA1c), is produced when glucose molecules become attached to hemoglobin – the oxygen-carrying protein found in red blood cells – in a process called glycosylation. The percentage of glycated hemoglobin in the blood stream increases as blood cells are exposed to elevated sugar levels over time. Since red blood cells can live for up to 120 days in the body, testing for A1C levels can aid patients and practi-

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Asthma Symptoms Linked to Elevated Allergen Levels in Home



Results from a new national survey demonstrate that elevated allergen levels in the home are associated with asthma symptoms in allergic individuals. The study suggests that asthmatics that have allergies may alleviate symptoms by reducing allergen exposures inside their homes. The work was carried out by researchers at the National Institute of Environmental Health Sciences (NIEHS). The team’s findings may help millions of Americans who suffer from asthma.

“Indoor allergen exposures are of great importance in relation to asthma because most people spend a majority of their time indoors, especially at home,” said Darryl Zeldin, MD, a principal investigator in the Laboratory of Respiratory Biology at NIEHS and senior author on the paper.

Asthma is one of the most common chronic ailments in the United States, affecting more than 22 million people. Asthma has been shown to be triggered by a wide range of substances called allergens.

The findings, published online and available in the March issue of the *Journal of Allergy & Clinical Immunology*, show that exposure to multiple indoor allergens was common in US households with 52 percent having at least six detectable allergens and 46 percent having three or more allergens at increased levels. The indoor allergens studied included those from dog, cat, mouse, cockroach, dust mite, and the fungus *alternaria*.

The researchers used data from the National Survey of Lead and Allergens in Housing (NSLAH) to examine factors that contribute to high allergen levels in homes and to determine whether elevated household allergen levels were associated with occupants’ asthma status. The NSLAH, which was the first study to characterize how allergen exposures vary

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Diabetes Trial

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tioners in looking back to accurately gauge average blood sugar levels for the previous 2 to 3 months.

While healthy people commonly have A1C levels as low as 5 percent (i.e., only 5 percent of their hemoglobin is glycosylated), diabetics frequently have A1C levels as high as 8 or 9 percent. According to the American Diabetes Association, in extreme cases A1C levels can go as high as 25 percent when diabetes is poorly controlled for long periods (Table 1).

A1C and Advanced Glycation End Products (AGEs)

In addition to measuring glycosylated hemoglobin, the A1C test can also indirectly reveal the presence of other damaging compounds produced in the presence of high blood sugar levels. These abnormal compounds, known as advanced glycation end products (AGEs), are produced by the same non-enzymatic process that binds sugar to blood cells. By binding sugar with other proteins, lipids and nucleic acids, AGEs alter the structure and function of various cells and tissues throughout the body to promote damage to blood vessels, peripheral nerves and organ tissues.

AGEs have been shown to accelerate atherosclerosis (hardening of the arteries), contributing to an increase in the risk of a heart attack or stroke. In patients with chronic diabetes, AGEs are also implicated in peripheral vascular disease (which can cause gangrene and lead to amputa-

tions), peripheral neuropathy (nerve damage in the limbs), retinopathy (eye damage) and nephropathy (kidney damage). A simple A1C blood test can directly determine which patients are most at risk by measuring the advanced glycation end-products of normal hemoglobin (Hgb).

Pushing Patients to The Brink of Disaster

The standard treatment goal for the control group was to maintain a target A1C of 7 to 7.9 percent, similar to A1C levels normally seen in diabetic patients following current diabetes protocols. By contrast, the goal of the intensive drug treatment test group was to increase insulin and drug dosages to aggressively push blood sugar levels down to A1C levels of less than 6 percent, similar to levels normally seen in healthy adults without diabetes. In addition to increasing deaths in the intensive drug treatment group, less than half of the participants succeeded in getting their A1C level below 6.4 percent.

The decision to halt the ACCORD trial 18 months prior to its scheduled completion became necessary after an interim NIH review revealed a 26 percent increase in deaths in the aggressively treated patient group (257 deaths), versus the standard drug therapy group (203 deaths). Additionally, while the agency noted a 10 percent drop in heart attacks among aggressively treated patients when compared to the general diabetic population (likely due to the extra level of health care and monitoring the patients received while taking part in the program), when a heart attack did occur it was more likely to be fatal in the study group. According to Dr. William Friedewald of Columbia University, who helped monitor the study, "In addition, the intensive treatment group had more unexpected sudden deaths, even without a clear heart attack."

Rush to Calm Fears Over Diabetes Drugs

Even as the NIH cautioned that it didn't know the reason for the unexpected deaths, the agency moved with impressive speed to calm patient fears over the use of multiple diabetic medications, stating, "Based on analyses conducted to date, there is no evidence that any medication or combination of medications is responsible." In their announcement the NIH also addressed the use of the drug rosiglitazone (Avandia), claiming, "Because of the recent concerns

A1C Chart	
Average Daily Blood Sugar	A1C Level
135	6%
170	7%
205	8%
240	9%
275	10%
310	11%
345	12%

Table 1. Chart showing how average daily average plasma blood glucose levels compare to 2-3 month A1C test results.

with rosiglitazone, our extensive analysis included a specific review to determine whether there was any link between this particular medication and the increased deaths. We found no link."

The rush by the NIH to exonerate drugs for any causative role in the unanticipated deaths strikes some observers as odd, given that the only notable difference between the two treatment groups was the quantity of FDA-approved diabetic medications given to the participants. Even more troubling was the suggestion by lead investigators from the trial that the concept of glucose control in patients with Type 2 diabetes may not even be desirable.

While the ACCORD trial aimed to save lives, the study continues to come under criticism from clinicians and patients for its intense focus on pharmaceutical intervention and lack of support for less dangerous options. While study participants were closely monitored to insure that they adhered to the rigorous treatment plan that, in some cases, had patients checking blood sugar levels throughout the day and taking four or five shots of insulin, there was no similarly stringent requirement or support system in place to encourage alternative, non-pharmaceutical strategies for controlling blood glucose levels, and inclusion of moderate exercise or dietary control were left up to the patients.

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Deadly Overreliance on Drug Intervention

Commenting on the outcome of the failed ACCORD trial in the online, peer-reviewed journal *Nutrition and Metabolism*, Eric Westerman, Department of Medicine, Duke University Medical Center states, "From our perspective of familiarity with dietary carbohydrate-restriction and diabetes, these results are not surprising – in fact, they are predicted. We believe that it is unlikely that the increased mortality was due to the tight glucose control but rather due to the particular method for trying to achieve it. When high carbohydrate diets are consumed and intensive medication therapy is used to

"When high carbohydrate diets are consumed and intensive medication therapy is used to 'cover the carbohydrate,' it is very difficult to achieve normal glycemic control without hypoglycemic reactions."

'cover the carbohydrate,' it is very difficult to achieve normal glycemic control without hypoglycemic reactions. In our clinical practices, we frequently see individuals who are instructed to eat high carbohydrate diets and use intensive injectable hypoglycemic therapy, and they are susceptible to hypoglycemic reactions. Severe hypoglycemic reactions are associated with an increased morbidity and mortality."

Despite widespread media reports to the contrary, the ACCORD trial was a large-scale human drug experiment that tragically backfired. And while diabetic patients and physicians await a final report from the NIH, the most obvious lesson of the trial appears to be that piling increasingly high dosages of blood-sugar lowering drugs and insulin on already weakened, at-risk patients is a bad idea.

The outcome of the study is especially troubling given that many, if not most, Type 2 diabetic patients can achieve the goals targeted by ACCORD by adopting a broader, integrative approach that includes reduced intake of dietary carbohydrates, regular physical exercise, and when necessary, moderate use of drugs and insulin.

MetaPhase Supports Blood Sugar Control, Improves A1C

MetaPhase® is a unique herbal supplement formulated to restore blood sugar regulation and healthy insulin production to support recovery from insulin resistance, a primary cause of obesity and obesity-related disorders.

MetaPhase contains a proprietary blend of herbal extracts that have been shown to support pancreatic function, glucose metabolism and energy production. In addition to reversing metabolic and chemical disturbances generated from long-term exposure to elevated insulin and blood glucose levels, *MetaPhase* can also assist in controlling food cravings, particularly hard-to-resist carbohydrate cravings, to support safe and natural weight loss.

Professional Feedback on MetaPhase

In our January, 2007 issue of *Nutrition Review*, Mitch Fleisher, MD reported on the results of his evaluation of *MetaPhase*, writing:

Several of my patients with non-insulin dependent diabetes mellitus (NIDDM) have benefited significantly from the herbal formula, MetaPhase. Following four months of daily use (three capsules three times daily), blood tests revealed a significant reduction in fasting blood sugar levels in my patients – in some cases dropping as much as sixty points. By reducing blood sugar, MetaPhase aids in bringing serum glucose levels down to a much more acceptable range for long-term medical management."

"...patients taking *MetaPhase* experience, on average, a restoration of A1C values down into the 5.4 to 6.2 range. These numbers signify a significant reduction in sustained hyperglycemia, diminished insulin resistance and improved diabetic control."

"Of greater significance, blood tests have shown that MetaPhase also aids in restoring hemoglobin A1C (HgbA1C or

glycosylated hemoglobin) levels to a more normal range. A1C is a relative measurement that determines average blood sugar levels over the previous three months to aid clinicians in determining a patient's degree of insulin resistance and sustained hyperglycemia (high blood sugar). An A1C value of 7.0 or greater represents poor blood sugar control. In this regard, I have observed that patients taking MetaPhase experience, on average, a restoration of A1C values down into the 5.4 to 6.2 range. These numbers signify a significant reduction in sustained hyperglycemia, diminished insulin resistance and improved diabetic control."

Client Feedback on MetaPhase and Improved A1C Test Scores

In our July, 2007 newsletter we shared the following letter from Myrna, detailing how she and her husband Harold improved their A1C scores with *MetaPhase*.

Dear John,

I am writing to tell you about our continued success with Metaphase. When we first started taking MetaPhase over a year ago our morning blood sugar measurements dropped from the high 140's down to about 110 when taking 2 capsules, twice daily. Harold had lost about 15 pounds and I lost about 8. Both of us noticed that our food cravings were slightly reduced, which is amazing since neither of us are great dieters.

Most importantly, prior to taking MetaPhase our A1C levels were both around 7.5, which our doctor was very concerned about. Then, after six months on MetaPhase Harold's A1C dropped to 6.9, and mine was down to 7.1.

Now, a year after those last results, we have just received the latest A1C numbers from our doctor. To our delight, Harold's A1C has dropped again, and is now down to 5.4, the lowest level ever. My A1C is down to 6.3. I must admit that I have not been as diligent about taking MetaPhase as Harold has been, and the results show.

Regards, Myrna S.

Note: Type 2 diabetics using *MetaPhase* to control blood sugar levels may also experience improvement in related morbidity factors, including hypertension, hyperlipidemia, nephropathy and neuropathy. Patients with these conditions should continue to be monitored by their physician for changes in their condition and modify medications as necessary.

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Asthma & Allergens

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in homes at the national level, surveyed the homes of nearly 2,500 individuals in 75 locations throughout the US. The survey was jointly funded by the NIEHS and the US Department of Housing and Urban Development. Several factors were found to contribute to the increased concentrations of allergens, including race, income, type of home, and sources of allergens, such as presence of pets and pests. The study also showed that homes with children were less likely to have high allergen levels. The authors noted that this finding may not be surprising since homes with children may be cleaned more frequently than homes without children. Regular household cleaning is a simple yet effective regimen that helps to reduce the overall exposure burden.

According to lead researcher Päivi Salo, Ph.D., of NIEHS, the study provides useful information to asthma patients. "Our results highlight the importance of reducing exposure to allergens as a fundamental part of asthma management," she said. "Although homes cannot be made allergen free, asthmatics that have allergies may need to do a better job in reducing allergen levels in their homes to improve asthma control."

Allergic Asthma

Allergies occur when the body overreacts to substances that are normally harmless, such as pollen. Some people inherit their allergies, while others become sensitive to specific foods or chemicals following repeated exposure. In either case, once the body has mistakenly identified a substance as foreign, or 'not self,' it begins to set the stage for future allergic reactions by producing antibodies against the particular substance.

The next time the specific allergen is detected by an antibody, the immune system goes into high gear, triggering the rapid release of histamine and other inflammatory chemicals from mast cells, a specialized class of immune cells found in connective tissues throughout the body, especially in small blood vessels, skin, and the respiratory tract.

Allergic asthma is characterized by airway obstruction that results in coughing, wheezing (especially on exhalation), shortness of breath and/or rapid breathing that leads to excess mucus, chest tightness,

occasional fatigue and slight chest pain.

The best treatment for allergies is to avoid the substances that trigger symptoms in the first. Since this is not always possible, many allergy sufferers turn to prescription and over-the-counter medications for relief. While antihistamines and other drugs may help some patients, they also cause serious problems for others. Typical antihistamines may make even the simplest of tasks, such as driving an automobile or operating heavy machinery, difficult, or even dangerous.

AllerPhase and Asthma

AllerPhase[®] is a highly effective herbal formula that relieves allergic symptoms while gently resolving the underlying imbalances that trigger allergic disorders. In addition to relieving allergy miseries, *AllerPhase* has been shown to assist those suffering from asthma.

Hyla Cass, MD, one of the country's foremost authors and speakers on the subject of integrative medicine and one of the first clinicians to evaluate *AllerPhase*, observed, "I've given the formula to numerous patients over the last year. Even in cases where the patient's allergic symptoms were severe and unresponsive to traditional and alternative therapies, *AllerPhase* brought about almost immediate and profound relief within 30 to 40 minutes.

Additionally, the formula has proved surprisingly effective at relieving asthma symptoms. I was out with a friend one evening who is an asthmatic. Suddenly experiencing an asthma attack, she realized that she had forgotten to bring her inhaler with her. I quickly offered her *AllerPhase* and much to our surprise, her asthma attack was completely stopped in its tracks. All of my allergy patients love *AllerPhase*, and my professional colleagues are just as impressed as I am by the rapid and safe relief and complete lack of side effects."

Ward Dean, MD, author of *The Neuroendocrine Theory of Aging, and Smart Drugs and Nutrients, I and II*, also reported significant success in his evaluation of *AllerPhase*, writing, "Regarding my experiences with *AllerPhase*, the first two patients I tried it on had severe allergies – one with allergic rhinitis, and the other with chronic, low-grade asthma, misdiagnosed by a number of other physicians as "bronchitis" and treated unsuccessfully by a plethora of antibiotics. The girl with allergic rhinitis was blown away by the

effectiveness of *AllerPhase*. She became symptom-free immediately. The patient I diagnosed with asthma also responded rapidly – her chronic, low-grade, unproductive cough ceased immediately."

In his report Dr. Dean noted that, "Most allergy medications merely relieve symptoms, to a greater or lesser degree, sometimes with other, unwanted side effects. However, with *AllerPhase*, I not only observed rapid relief of symptoms, but long-lasting relief as well. It appeared that something was going on with these patients' immune systems as a result of *AllerPhase*. I interpreted this to be an immune-normalizing effect."

Source: NIH/National Institute of Environmental Health Sciences (2008, March 4). Increased Allergen Levels In Homes Linked To Asthma.

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Research Update

Avandia Shown to Interfere with New Bone Formation

Concerns about the diabetes drug Avandia continue to mount in the wake of a recent study linking Avandia with accelerated bone loss and osteoporosis. In the report, published in the December 2007 issue of *Nature Medicine*, researchers from the Salk Institute in La Jolla, California report that rosiglitazone (Avandia) has been shown to interfere with the formation of new bone tissue in mice and warn that long-term use may speed up osteoporosis.

Bone tissue is constantly regenerated in a process known as bone remodeling. Bone remodeling utilizes two specialized cells – osteoclasts and osteoblasts – which work in unison to support bone integrity. Osteoclasts initiate the remodeling process by secreting an acid-like substance to dissolve old, weakened bone, leaving behind a series of small pits or cavities. Once this is complete, the osteoblasts move in to fill the cavities with a collagen mixture that hardens to form new bone.

Maintaining healthy bone mass depends on the body's ability to maintain a state of equilibrium between bone destruction and bone replacement. When this balance is disrupted, as in the case with osteoporosis, bone remodeling is impaired, resulting in weakened, brittle bone.

The Salk researchers found that Avandia stimulates the production of osteoclasts that degrade bone tissue without an equivalent increase in activity by osteoblasts. What the US researchers have shown is that, in mice receiving the drug, the increased activity from osteoclasts throws the remodeling process out of equilibrium, ultimately tipping the balance towards bone loss.

Commenting on the findings, the researchers noted that, "These findings have potential clinical implications, as they suggest that long-term rosiglitazone usage in the treatment of Type 2 diabetes and insulin resistance may cause osteoporosis, owing to a combination of decreased bone formation and increased bone resorption."

Despite growing concern over the wisdom of using Avandia for the treatment of diabetes, a number of potential benefits have turned up. Avandia has been shown to reduce cancer in several studies, and ironically its role in promoting osteoporosis may ultimately lead to new insight into the disorder.

Source: *Diabetes Drug Avandia Could Weaken*

Bones. Dec. 2, 2007, *Nature Medicine* online.

Study Reveals Heart Risk from Calcium Supplements

Older women taking calcium supplements to maintain bone strength may be putting themselves at increased risk of heart attack, researchers in New Zealand report.

The researchers cautioned that they do not consider their findings the definitive word on the subject, but said the higher heart attack risk they saw merits further study.

"This effect could outweigh any benefits on bone from calcium supplements," researchers led by Ian Reid of the University of Auckland wrote in the *British Medical Journal* (BMJ).

Many women take calcium supplements to try to prevent osteoporosis, a condition in which bones become weak and brittle, leading to fractures.

The study involved 1,471 healthy post-menopausal women, average age 74, who already had participated in a study on the effects of calcium on bone density and fracture rates. Of them, 732 were given a daily calcium supplement and 739 were given a placebo. They were followed for five years.

Heart attacks were more common in the women taking the calcium supplements, with 31 women who took supplements experiencing a heart attack compared to 21 women who got a placebo, the researchers said.

The researchers noted that previous research had suggested that taking calcium supplements might protect against vascular disease by lowering levels of bad cholesterol in the blood. They said that because calcium supplements raise blood calcium levels, this possibly accelerates the formation of deposits in the arteries that could lead to heart attack.

The new results "are not conclusive but suggest that high calcium intakes might have an adverse effect on vascular health," the researchers wrote. "In the meantime this potentially detrimental effect should be balanced against the likely benefits of calcium on bone, particularly in elderly women," they wrote.

Source: *Vascular Events in Healthy Older Women Receiving Calcium Supplementation: Randomised controlled trial* BMJ, January 15, 2008).

Obesity and Carbs Linked to Esophageal Cancer

Cases of esophageal cancer (adenocarcinoma) in the US have risen in recent decades from 300,000 cases

in 1973 to 2.1 million in 2001 at age-adjusted rates. A new study shows that these rates in the US closely mirrored trends of increased carbohydrate intake and obesity from 1973-2001.

A new study illustrates what may be a public health concern as the composition of US diets changes and total carbohydrate and refined carbohydrate intakes increase. Obesity is a risk factor for many types of cancer, and a diet that includes a high percentage of calories from refined carbohydrates is a common contributor to obesity. Carbohydrates were also unique in that no other studied nutrients were found to correlate with esophageal cancer rates.

The causes of esophageal cancer remain largely unknown. Despite recent advances in treatment, esophageal cancer has a poor prognosis. The five-year rate of survival for esophageal cancer remains below 20 percent and it is the eighth leading cause of cancer-related death in American men.

"If we can reverse the trends in refined carbohydrate intake and obesity in the US, we may be able to reduce the incidence of esophageal cancer," says Dr. Li Li, senior author of the study.

Source: Thompson CL, Khiani V, Chak A, Berger NA, Li L. *Carbohydrate consumption and esophageal cancer: an ecological assessment*. *Am J Gastroenterol*. 2008 Mar;103(3):555-61.

New Concerns Raised Over Cholesterol Drug

Merck and Schering-Plough, makers of Zetia, announced that the drug had failed to benefit patients in a two-year trial that ended in April 2006. In a press release, Merck and Schering said that not only did Zetia fail to slow the accumulation of fatty plaque in the arteries, it actually seemed to contribute to plaque formation — although by such a small amount that the finding could have been a result of chance.

Dr. Steven E. Nissen, the chairman of cardiology at the Cleveland Clinic, said the results were "shocking." "This is as bad a result for the drug as anybody could have feared," said Dr. Nissen, a widely published researcher and senior consulting editor to the *Journal of the American College of Cardiology*. Millions of patients may be taking a drug that does not benefit them, raising their risk of heart attacks and exposing them to potential side effects, he said. Patients should not be given prescriptions for Zetia unless all other cholesterol drugs have failed, he said.

Source: *Study Reveals Doubt on Drug for Cholesterol* (NY Times, January 15, 2008).



Letters

With **John Steinke, L.Ac.** *Licensed Acupuncturist and VP of Product Development for Tango Advanced Nutrition, Inc.*

Success with ArthriPhase After Arthroscopic Surgery

Dear John,

ArthriPhase has done wonders for my husband who has been suffering from knee pain for many months. Last summer he had great difficulty walking and standing, and his orthopedic surgeon suggested arthroscopic surgery for the meniscus in his knees. The surgeon also found he had arthritis in his knees and probably would eventually require knee replacement.

After recovering from his surgery my husband continued to have pain. He had a cortisone shot which helped a bit, but then the pain returned. At that time I received the latest newsletter issue from the Health Science Institute mentioning a new product called *ArthriPhase*. I called Tango Nutrition to get further information and after an informative and helpful discussion with John, I ordered a two month supply for my husband to try.

It really worked miracles for my husband. His pain completely subsided in a very short time and he has been pain free ever since. He cannot believe how wonderful his knees now feel. After two months I called and spoke with John to tell him the good news. We decided to have my husband continue using *ArthriPhase* for a while longer. I also learned that *ArthriPhase* could be helpful for osteoporosis, so we have increased the dose somewhat.

My husband and I are extremely pleased with the performance of *ArthriPhase* in such a short time. Anyone who has ever been in pain knows what a miracle it is to be pain free after taking something as effective and specific as *ArthriPhase*. We are also most appreciative of the professional approach and help we received from Tango Nutrition. Based on our wonderful experience we would definitely recommend this product for anyone with arthritis.

With regards, Norma F.

Hi Norma,

Thank you so much for this inspiring story. We are so pleased that ArthriPhase is helping your husband with his knee pain. And I just want to reinforce the point that when inflammation is reduced, the herbs in the remedy that build bone and restore soft tissues can really begin to work. Continuing to use the product will provide its restorative benefits that go

beyond pain control, reduced swelling and improved mobility.

John Steinke, L.Ac.

Paget's Disease Outcome Improved with Herbal Boost

Dear John,

I was informed by my doctor that I have Paget's Disease of Bone (*Osteitis Deformans*) that was spreading in my top skull. After he told me that there was no cure I decided to do my own research and found your website. I first ordered the *OsteoPhase* and started taking it 3 times a day and didn't see too much change. Then I ordered the *Herbal Boost* and saw a quick change. I felt very odd sensations occurring around the area where I had about a 1/4" hole on my head that was growing bigger. Now, as I am writing this note, I can't find any hole!

Thank you! M. Castillo

AllerPhase and Chronic Sinusitis

Dear John,

Relief at last! I am 67-years-old and have had chronic sinusitis for about 45 years which frequently leads to infections of my nose, throat and lungs. I have several food allergies and am sensitive to chemicals, perfumes, cigarette and wood smoke and house dust/mites. I do not want to take drugs and have tried several natural products but none have really helped. When I read about *AllerPhase* in a *Health Sciences Institute* report, I sent for a bottle.

What a great decision. Within 24 hours I noticed a difference and within 48 hours my sinuses were cleared, my nose wasn't red, and when I got up in the morning I wasn't coughing up phlegm.

I continued taking one capsule of *AllerPhase* twice a day for one week, then dropped to one capsule a day, which really keeps my allergies under control. If I am exposed to something that really bothers me I take an extra capsule of *AllerPhase* just in case. Thank you so much, Tango, and keep up the good work. Everyone I have talked to at your company are so helpful and pleasant.

Betty, Nova Scotia, Canada

How Much OsteoPhase Should Wife Take for Osteopenia?

Dear John,

My wife has mild osteopenia and wants to know much *OsteoPhase* she should take. On your website it says to take 1 to 2 capsules daily, and elsewhere it says to take 2 capsules, twice daily. Can you clear this up?

Thanks, D.B.

Dear D.B.,

If your wife has only mild osteopenia she is at extremely low risk for fracture. Doctors and drug companies are trying to get women and men to take osteoporosis drugs even when they only have mild bone loss, or osteopenia. Her main focus should just be on developing or maintaining leg strength and balance to prevent falls, her actual greatest risk for fracture at this point.

Bone density diminishes slowly, so there is no need for fear when she just has osteopenia. Unless a subsequent bone density test indicates a speed up of bone density loss progressing rapidly towards osteoporosis, she does not really need to change much at this time. If she does wish to retain her current, relatively healthy bone density, she would only need to take two capsules, once per day of OsteoPhase.

Or, she could take 2 capsules, once per day of Herbal Boost, a comprehensive formula that supports bone density, improved circulatory health and restored hormone balance for post-menopausal women. OsteoPhase primarily focuses on improving calcium regulation and bone density, while Herbal Boost gives a broader systemic benefit that aids in supporting many of the disorders that occur with aging.

John Steinke, L.Ac.

SleepCycle Supports Deep, Restorative Slumber

Dear John,

I had to write to tell you about my experience with your wonderful formula, *SleepCycle*. For several years, I've slept poorly because I would wake up repeatedly through the night. Sometimes, it would take a long time for me to fall back asleep. It was becoming a problem. I was waking up tired and sleepy.

My husband suggested that I take a prescription sleeping pill, but I said no. They scared me, so, I began to try natural sleep remedies. I tried a lot of them, but none of them really worked. Some made me fall asleep faster than I normally would, but I would always snap awake at some time during the night. It was the same old problem again, waking up in the middle of the night. Now, I was getting depressed.

I tried your *SleepCycle* formula at a friend's urging. And for the first time in I don't know how long, I slept the whole night through, without waking up even once! It did the same thing the next night. I slept great. Finally, I've found something that helps me sleep, and it works without drugs. I wake up in the morning feeling, rested and happy.

You have changed my life. I had forgotten what it felt like to sleep, deeply, every night. Every now and then, I won't take *SleepCycle* just to see if I can still sleep on my own. Guess what? I sleep just as good! I feel like it's re-trained my body how to sleep again. Now, I only take your pills when I think I may need them to stay asleep. I am very impressed with your formula and your company. You've got a customer for life!

Lisa H. Pricedale, MS

Concern Over Quality Control of Chinese Herbs

Dear John,

I am reading your information on *OsteoPhase*, but my one big concern is after hearing all the problems with imports from China, I find it scary to purchase this product. Is this manufactured in China and imported to the US?

D.S.

Dear D.,

We appreciate your concern about possible contamination of herbal products imported from China. Your question is not unusual, of course, as we are asked the same thing 2-3 times per day by new customers evaluating *OsteoPhase* and our other products. All of our formulas are produced as concentrated powders at certified GMP (Good Manufacturing Practices) factories in China, and after clearing customs and being released by the FDA are encapsulated, bottled and labeled at GMP facilities in California.

The issue of formula purity as related to recent news regarding products from China is also not new. When I began my acupuncture practice over 20 years ago quality control of herbal products was

already an important issue in the acupuncture community, especially since licensed acupuncturists are allowed to prescribe herbal formulations to patients, and all of us practicing the medicine wish to ensure that we are working with clean products.

The majority of Chinese herbs and herbal formulations imported into the United States come in through California ports, and are regulated, in part, by the California Department of Health Services as dietary supplement products. For the last 16 years the California Department of Health Services, under the direction of Dr. Richard Ko, has worked closely with the FDA to establish standards for evaluating herbal imports and detecting contaminated products (see sidebar).

Product purity was foremost in our minds when we launched Tango five years ago to import advanced herbal formulas from leading Chinese doctors, hospitals and research institutes. Prior to beginning our lengthy clinical evaluation programs all potential formulas were submitted to Dr. Ko's lab at the California Department of Health Services for initial testing for some 300 potential contaminants (drugs, heavy metals, pesticides, etc.). Additionally we submitted samples of each formula to independent testing labs for further verification before allowing the powders to be released for production. This process has guaranteed that all of our products exceeded the exacting standards for safety and purity as set by Dr. Ko and the USP, including *OsteoPhase*.

Dr. Ko is now a consultant to Tango Advanced Nutrition, assisting in our quality control programs and overseeing product evaluation and testing processes, most recently for *ArthriPhase*. Our quality control program is especially important, since China is at least 20 years ahead of the rest of the world in developing breakthrough herbal medicine formulations for every conceivable disorder. These breakthroughs are based on the following:

1. Due to its large size and variety of climates from deserts to tropical areas and mountains to seashores, the base of natural medicinal ingredients is the largest of any country.

2. Thousands of years of traditional empirical development have improved current herbal medicine formulations. Formulas are preferred for both efficacy and safety over individual herbs.

3. Over the past 50 years scientific advancement at hospitals and research institutes in every major Chinese city have focused on developing treatments for specific disorders. This research effort is currently the equivalent of three or more US Apollo programs to put a man on the moon. It is doubtful that the rest of the world combined will match this ongoing research any time this century.

Our task at Tango is to identify, evaluate and introduce such important products as *OsteoPhase*. *OsteoPhase*, in particular, is a product of modern scientific research and biotech production. Manufacture of the powder involves a skilled extraction of protein peptides from the inner lining of the oyster shell that act as directing agents for biological processes. In this case, these protein peptides regulate how calcium is used and stored in the body, including regulation and enhancement in the bone building process.

French scientists also identified these protein peptides and concluded that they would be able to reduce osteoporosis, but they were unable to come up with a commercial extraction process that would enable use as a dietary supplement.

I realize this is a long answer to your question, but I wanted to provide a summation of our efforts in making *OsteoPhase* available.

John Steinke, L.Ac.
VP of Product Development

Dr. Richard Ko

Dr. Ko received his undergraduate degree in biochemistry from the University of California, Berkeley, and his Doctor of Pharmacy and Doctor of Philosophy from the University of Southern California, Los Angeles. His doctoral dissertation was on pharmacokinetic drug interactions.

As a Research Scientist (Food and Drug Scientist) at the California Department of Health Services, Food and Drug Branch, Dr. Ko was actively involved in regulating dietary supplements and investigating herbal products related to injury and death.

Dr. Ko has published numerous peer review articles, including "Adulterants in Asian Patent Medicines" (*New England Journal of Medicine*, Sept. 17, 1998, Vol. 339:847, Num. 12), and most recently co-authored "Safety of Green Tea Extracts: A Systematic Review by the US Pharmacopeia," in *Drug Safety*, a premier international journal covering the disciplines of pharmaco-vigilance, pharmaco-epidemiology, benefit-risk assessment and risk management.

Under the direction of Dr. Richard Ko, the California Department of Health Services evaluated and identified products with contaminants as well as the factories where they were produced. He has also located factories producing safe products. The work of his office has enabled Tango and other companies to identify sources for products with standards of purity that exceed USP (United States Pharmacopeia) standards.