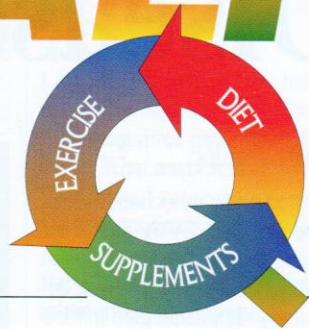


HEALTH

TODAY'S DEVELOPMENTS FOR TOMORROW'S HEALTH®



QUEST

Volume 27 Number 4

Dr. Bruce Miller, Founder Dr. Frank M Painter, Editor

Alzheimer's Disease Update

Neurodegenerative diseases, especially the ones that attack memory and muscular function, are especially frightening. When I have reviewed this topic on the *Product Talk* conference calls, there has always been a strong turnout.** I last wrote a newsletter on this topic in June of 2008, and since that time, numerous studies have indicated a dramatic shift in the thinking about what may cause the brain damage in Alzheimer's and other neurodegenerative diseases. Before we get to that, let's discuss some of the stumbling blocks in nutritional research.

Research Obstacles

The chief barrier to unbiased supplement research is Big Pharma. As Deep Throat said: "Follow the Money" if you want the truth.

The Vioxx Scandal¹ is the best indication of what the pharmaceutical industry stands to lose if research ever demonstrates the amazing healing power of phytonutrients. During its last year of distribution, **Vioxx sales totaled 2.5 Billion dollars.** Although early clinical trials clearly demonstrated increased heart attack and stroke rates, the Merck Company kept Vioxx on the market for an additional 4-plus years, pocketing an extra \$8 Billion in profits. Aye, there's the rub . . . nutrients can't be exclusively patented. Big Pharma has adopted several nutrients for core ingredients in two new "miracle drugs": *LOVAZA* contains omega-3 fatty acids,² and *NIASPAN* contains vitamin B-3.³ They can get away with charging 30 to 40 times more for a nutrient when it's in a "drug," and the FDA even permits them to make *disease claims*, but there's just no potential for making billions per year.

The next issue with supplement research is Big Pharma's influence over NIH research funding. Virtually all of the authors who published negative nutrient studies had their background in patented-drug research. NIH grants are based as much on the pedigree of the chief author as they are on the wisdom of the proposed project. So there's a tendency not to fund nutrient trials, unless the chief author has an extensive publishing history. That limits funding to those with drug-trial mentality.

A third serious issue is that most of the recently published studies treated single-nutrients as though they were clinical drugs. Previous issues of *HealthQuest* have reviewed a string of negative studies that concluded that nutrients didn't reduce the incidence of heart disease, stroke, cancer, or diabetes.⁴ Unfortunately, all these trials used *synthetic nutrients* with exclusively sick, older individuals. NHANES research clearly demonstrates that long-term deficiencies of key nutrients are at the core of disease evolution.^{5,6} That's radically different than expecting that short-term supplementation can reverse such damage. **Prevention is the only sensible option.**

In Nature, vitamins do not exist as single units that act independently. Vitamins are found naturally as complexes. These unique compounds include enzymes, co-enzymes, and other co-factors that must work together synergistically to produce their intended biologic effects.

What We Do Know

The NHANES research database is America's premier resource for monitoring the health behaviors, nutritional status, and health outcomes for adults and children in the United States. To date, **NHANES has interviewed millions of Americans,** compiling complete physical examinations and blood testing results. This database unequivocally demonstrates that individuals who eat the most fruits and vegetables experience the lowest incidences of ALL the diseases that kill Americans over the age of 45.^{5,6}

In the Garden of Eden we lived on fresh fruits and vegetables, provided by our Maker. Today, however, our produce is manufactured by giant conglomerates, on nutrient-depleted soils, "fed" with chemical fertilizers, "protected" by disease-promoting pesticides, picked while green and immature, and finally forced into ripeness at the grocery store with ethylene gas.⁷

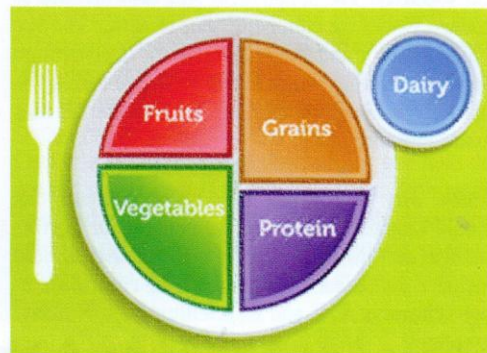
When the *Washington Post* reviewed NHANES, they discovered that less than 11% of adults eat the minimum required servings of fruits and vegetables, and sadly, children scored even lower.⁸ Once the USDA

removes french fries and sweetened fruit drinks from that "servings" list, compliance percentages will drop below the 5% mark.⁹

So, the hard truth is that virtually none of us regularly consume the variety of plant foods required to absorb the *minimum daily requirements* (MDR) of vitamins and minerals. If you are a growing child, a pregnant or lactating mother, or a sick anybody, then you actually need to absorb MULTIPLES of the MDR to maintain or recapture your health. **That's why supplementation is no longer an option.** It's currently the safest method we have at our disposal to protect our health, **IF** you are taking supplements that are *well designed*, produced from pure *natural ingredients*, and contain the *proper dosages*. That's why Shaklee products are your natural first choice! Lets briefly review two recent studies that clearly demonstrate how Shaklee can deliver better health.

The first study was funded by Shaklee in 2006, and was conducted by the esteemed epidemiologist Dr. Gladys Block, of the University of California at the Berkeley School of Public Health. You've no doubt already heard about the **Landmark Study**, and

Cont. on page 2



Alzheimer's Disease Update

Cont. from page 1

how the 300 Shaklee participants outshone identical matched NHANES participants, meaning folks who either didn't supplement, or took Brand X products.^{10,11} **There's just no arguing with these statistics.** The Shaklee participants, many of whom were above the age of 60, maintained significantly better overall health and energy levels, and experienced considerably lower incidences of ALL the deadly diseases. That's because they all used a broad spectrum of Shaklee supplements.

The second study of interest was designed by researchers at **McMaster University**, as a reaction against the flood of *single-substance* studies that have glutted the journals in the last three years.¹²

These scientists chose to explore what impact a spectrum of nutrients would have on two separate groups of mice. Their formulation, comprising 30 different nutrients, was developed to target five key mechanisms associated with ageing: **oxidative stress, Inflammation, impaired mitochondrial function, insulin resistance, and cell membrane integrity.** The most serious of these cause injury to genetic materials and cell membranes.^{12,13}

Their early press release detailed impressive results, when lead researcher, David Rollo, stated that **"the supplemented mice were twice as physically active, and they appeared to get smarter as the study progressed."**¹² The full-text article reports even more impressive results: while the untreated group of mice declined in health as they aged, the supplemented group actually experienced significant improvements in mitochondrial function within their brain tissues.¹³



The McMaster group focused closely on two easy-to-measure aspects of aging: **mental acuity and physical capacity.** The supplement was also blended to address two of the current theories of aging: The *free radical theory* and the *mitochondrial degeneration theory*, both which suggest that oxidative damage to our DNA and cell membranes leads to the diseases associated with aging.¹⁴

That's why these researchers chose nutrients that would target for improved **mitochondrial performance** (carnitine, co-enzyme Q10 and fish oil) and included antioxidants to combat **free radical damage** (vitamins A, C and E, selenium, and N-acetyl cysteine).

Here are the dramatic results:

- In the non-supplemented mice, mitochondrial energy production dropped to 46% by the end of the first year, while the supplemented group exhibited a **"remarkable 56% increase in mitochondrial activity,"** with a similarly significant gain in their physical activity levels. Not bad for aging mice!
- When examining brain tissue, they found that the **supplemented mouse brains had significantly less free radical damage** — clear evidence that this nutrient cocktail provided dramatic protection for brain health.

You could reproduce these impressive results by taking the following products daily:

- **Vitalizer Gold (#20270)**
- **CorEnergy (#20632)**
- **CoQHeart (#20647)**
- **Mental Acuity (#20637)**

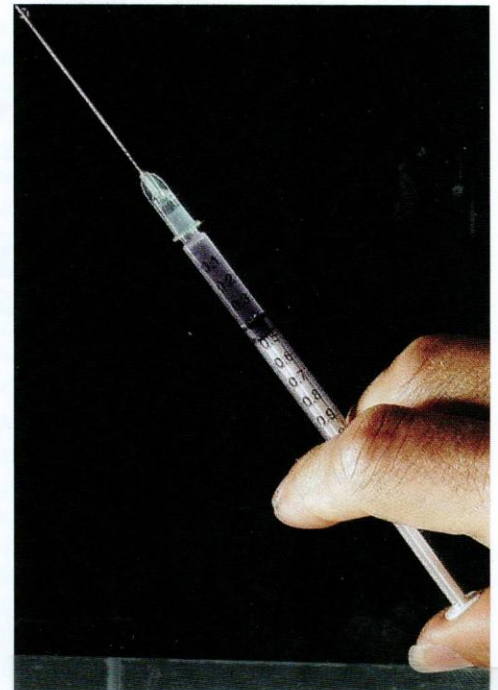
and a less frequent dose of:

- **Garlic Complex (#20084),** and
- **Stomach Soothing Complex (#20601)**

Alzheimer's Update

The recent shift in Alzheimer's (AD) research includes revelations about what initiates the cellular degeneration of brain tissue. The first insight is that **insulin controls neurotransmitter release at synapses** (nerve junctions) and also **activates the signaling pathways associated with learning and long-term memory.** Post-mortem brain studies have revealed that insulin sensitivity is suppressed in AD patients, and is **directly proportional to the progression of the disease.** Alzheimer's is now being considered, at least in part, a neuro-endocrine disorder, with some researchers now referring to it as **"Type 3 diabetes."**¹⁵⁻²⁰ Five of these six cited studies were published just in the last two months.

It has also demonstrated that neuro-toxins named amyloid beta-derived diffusible ligands (or ADDLs) disrupt signals at the synapses, making the neuron more resistant to insulin. This causes synapse destruction, contributes to increased oxidative damage, and causes increased production of **advanced glycation end products (AGEs).**¹⁸⁻²⁰ Patients with diabetes appear to have a significantly increased risk for AD because AGEs accumulate into neurofibrillar tangles and amyloid plaques within AD brains.^{19,20}



PubMed is the search engine for the *National Library of Medicine*. It has access to all the peer-reviewed biomedical literature.²¹ Currently it lists 346 articles detailing the relationship between age proteins and Alzheimer's²² and another 1871 articles relating diabetes to AD.²³

Twenty-four million Americans (or 8% of our population) already have diabetes, with another 18 million undiagnosed cases. The *American Diabetes Association* also estimates that another 57 million Americans are pre-diabetic.²⁴ Cumulatively, this means that **one out of every three Americans is at risk for diabetes,** with an unknown percentage of them at additional risk for AD. So let's talk about prevention.

Nutritional Management

All recent research reveals that intellectual stimulation, social engagement, improved dietary habits, and regular exercise reduce the risk for developing AD. Shaklee products can also help to reduce your risk by managing blood-sugar levels and increasing insulin sensitivity. They include the products we mentioned in the *Mouse Study* [**Vitalizer Gold (#20270), CorEnergy (#20632), CoQHeart (#20647), Mental Acuity (#20637)**] plus these three- key products:

Glucose Regulation Complex (GRC) (#20649 or **#20749** for vegetarians) contains chromium polynicotinate, the best-absorbed form of this key nutrient for blood sugar control.²⁵ Chromium deficiency was first tied to diabetes and glucose intolerance

Sports Products Facelift

in 1977.²⁶ Since that time, numerous studies have shown that chromium supplementation can effectively manage blood-sugar levels while improving insulin sensitivity.²⁵⁻²⁷

GRC also contains *alpha lipoic acid*, a powerful antioxidant that has been shown to provide improvement in diabetic peripheral neuropathy,²⁸ and has also been found to improve hypertension, insulin resistance, and cellular oxidative stress.^{29,30}

GRC also contains **Banaba Leaf**, a plant long used as a natural treatment for diabetes in the Philippines, where it is referred to as *plant insulin*. Recent studies have confirmed banaba leaf's ability to improve glycemic control.³¹⁻³³

GRC also contains **Vanadium**, a mineral cofactor that mimics the action of insulin, thus promoting healthy glucose metabolism.³⁴ Two different studies with diabetic mice demonstrated remarkable improvements in blood-sugar management.^{25,36}

The second important product is **Vivix** (#21200 or #22991 Kasher certified). Numerous recent studies explored the health benefits of this powerful combination of 12 unique polyphenols, combined with pure resveratrol:

- The newly published **Vivix vs. the "Burger King Breakfast Study"** clearly demonstrates that **Vivix halted the oxidative and inflammatory damage** that is initiated by eating high-fat and high-carbo meals.³⁷
- Vivix also **dramatically increased Nrf2 activity**. This is especially important because Nrf2 is the **coordinator of antioxidant protection within every cell in your body**.³⁷
- **The research supporting the 12 polyphenols found in Vivix is legendary**. In particular, *Ellagic acid* has demonstrated a **powerful ability to prevent the formation of advanced glycation end products** (or AGE proteins), which appear to be at the core of brain tissue damage found in Alzheimer brains, and also protects against loss of insulin sensitivity (or Syndrome X).³⁸⁻⁴¹

The third important product is **Vita-D₃** (#21214). Vitamin D is essential for the proper functioning of the endocrine system, and massive clinical data suggest that vitamin D(3) insufficiency is associated with an increased risk of several CNS diseases, including multiple sclerosis, Alzheimer's and Parkinson's disease, seasonal affective disorder and schizophrenia.⁴²

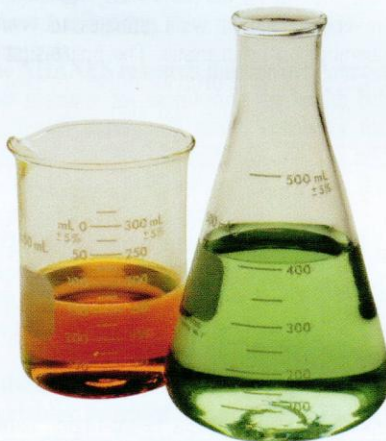
Finally, if there is a history of Alzheimer's, or other neurodegenerative diseases in your family, it would be prudent to adopt the widest spectrum of antioxidants, as provided by Shaklee's **CarotoMax** (#20652) and **FlavoMax** (#20654). These two products contain many of the powerful phytoalexins found in fruits and vegetables.^{43,44}

Last month Shaklee gave their premier Sports Products line a face lift, and offered a free package of the following three products with any \$70 *new member* order. What a wonderful way to start their summer!

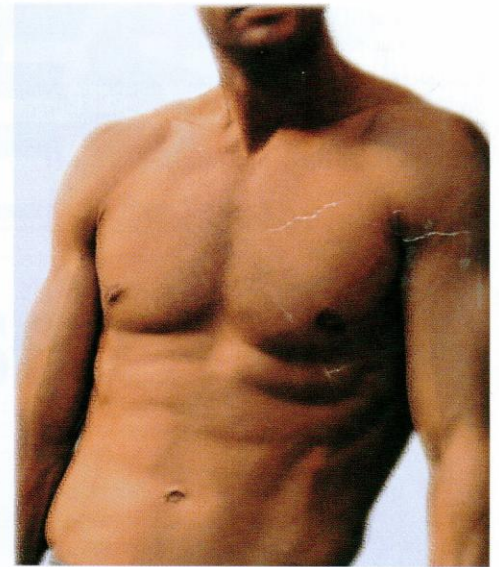
Shaklee routinely uses clinical testing to help develop and refine every new product. This process led to the publication of no less than 15 important reviews in the medical literature.

Performance (#20351 lemon lime, or #20350 natural orange). During the development and later testing of this unique rehydration drink, Shaklee scientists conducted significant basic science research to determine the ideal ratio of electrolytes to create this fluid-replacement drink. Electrolytes are charged metallic "ions," which the body uses to manage the balance of fluid pressure inside our cells (referred to as *osmotic pressure*) and also to control the pH of our blood. Electrolytes are also critical for managing normal nerve, muscle, and heart function. If you ever got leg cramps after running, it was because your electrolytes were out of balance.

Shaklee also did additional basic science research of the various forms of carbohydrates, leading to the development of the patented OptiCarb system. The simple carbohydrates found in most sport drinks release a quick burst of blood sugar, forcing your body to secrete a blast of insulin to clear your sugar level. This over-reaction leads to rapid exhaustion. That's why the unique complex carbs in **Performance** helps you to maintain ideal glucose levels over prolonged periods, maximizing your endurance, while you participate in demanding activities or experience extremes of heat.⁴⁵



Physique (#20306) is another scientific breakthrough because of its ability to help muscles recover quickly following extreme workouts. Shaklee did clinical testing with various forms and combinations of carbs and protein sources to determine which combination would replenish muscle glycogen stores quickly. This led to the development of the patented BioBuild system.



They started with nine male subjects cycling maximally for two hours, on three separate occasions, to completely deplete their muscle glycogen stores. This group was then given drinks containing various combinations of carbs, proteins or combinations of the two immediately after and again two hours after completion of their sprints. Blood testing and muscle biopsies revealed a specific carb:protein ratio that replenished muscle glycogen stores the fastest. That was the birth of BioBuild.⁴⁶ **Physique** is a delicious banana flavored drink favored by both extreme athletes and weekend sport enthusiasts for its quick relief from post-exercise muscle pain.

Shaklee Energy (#20156) is the newest addition to the sports lineup. It combines a scientific blend of caffeine from natural green tea extract, plus L-tyrosine, L-theanine, B vitamins, and vitamin D to provide a pure burst of healthy energy for an extra "edge" when you need it most. L-tyrosine is a component of numerous neurotransmitters that manage mood and emotion.⁴⁷ L-theanine from green tea causes relaxation and reduces stress.⁴⁸ B vitamins help to release the energy stored within carbs and protein. Combined they provide a sustained increase in energy with none of the stressful side effects associated with energy drinks.

A new review of sports and energy drinks by the *Council on Sports Medicine and Fitness*, and published in the prestigious *Pediatrics Journal* was most revealing, as it questioned the inappropriate use of various stimulants in these products, and marketing campaigns targeting children and adolescent use.⁴⁹ I am relieved (and proud) that Shaklee scientists do not add questionable or fad substances to their products, and the fact that they are clinically tested and based on solid science before they are ever released to the public. I hope you will all enjoy a safe and happy summer!

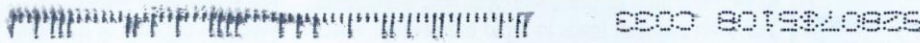
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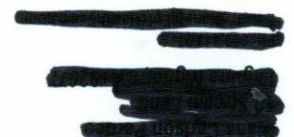
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Neurodegenerative Disease Update
Research Obstacles
What We Do Know
Sports Products Facilitate



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