



# Dr. Bea's Newsletter

December 2002

## *Cheating Death*

---

We all know on an intellectual level that the inevitable Big Sleep looms ahead. But on an emotional level not only is the idea of the Final Summons incomprehensible but mostly scares the living crap out of most of us. How can the very great and wonderful me, myself and I not be Here? What is Here? What is Me? Most urgently, What is There?

Confronted with our futile pursuit of the unknowable, we are soon babbling and drooling and hoping that The Four Horsemen of the Apocalypse will pay us a visit sooner rather than later just to deliver us from our misery. Often, ontological endeavors - like reading the entire Urantia Book from cover to cover, finding and following a small obscure Indian guru, or studying particle physics for the answers to existence - become appealing in an attempt to make the not-here/not-me a little more bearable.

Some people find Jesus or the Kabbalah or return to the comfort of their childhood religions. Others ignore the whole thing, taking to the road in their retirement Winnebagoes with that cutesy "I'm spending your inheritance" bumper-sticker on the back and just wait patiently to go toes up. (These people always look so grim... ) Some do the genealogy thing, collecting with great relief all of their ancestors who lived past 80. Other more miserable folk focus on their illnesses imagining that that hangnail on their index finger will turn into a fatal flesh-eating bacteria within the next hour. The more enviable folks have examined death and despite the prognosis have managed to park the whole idea somewhere in a consciously inaccessible hippocampal vault; these lucky folks just whistle a happy tune and

end up doing death without a backwards (forward?) glance.

What do I do? Well, a little bit of this and a little bit of that, but mostly I scour the literature for anti-aging nutrition and gobble great quantities of supplements. I enroll for every anti-aging seminar this side of the Mississippi taking notes until my fingers ache and pray mightily that the good genes from my mother's side (Grandpa was 93 when he died and Aunt Teddy was 102) will overcome that of my father's side whose blemished genes were expressed in strokes, schizophrenia and senile dementia.

As that dark channel between me and the eternal "it" narrows, my search for anti-aging remedies and longevity enhancers intensifies. My search has been fruitful; I have found that there is a lot that we can do to keep ourselves chugging along but it does require, first and foremost, an Intense Commitment.

It requires no less than a transformation of our definition of Fun and a willingness to step outside of the everyday box of cocktails, desserts, stress and sloth into a much smaller, yet ultimately more rewarding box containing supplements, good food, exercise, satisfying relationships, a meditation practice and good sleep. It's a willingness to Pay Attention to our higher selves, consciously choosing life over death, good over bad, healthy over unhealthy, carrot sticks over Oreos and not just on Mondays and Wednesdays, but every minute of every day. The path is narrow but once you are travelling, it is very very rewarding.

Our goal, I think, is to live as long as we

can - vital and healthy and joyful - then one night in our sleep when we are very, very old, just give up the ghost peacefully.

### *My Idol, The Old Guy*

One of my longevity idols is Roy Walford, M.D. Ten years ago, he participated in the Biosphere 2 which was the two-year experiment performed in the Arizona desert in an enclosed earth-like environment to develop technology for self-sustaining bases on the moon and Mars. He is a gerontologist who has devoted his life to studying longevity and to personally living a long time. So far, so good. He is currently 83 and looks at least 30 years younger.

Walford contends that underfed mice live longer than fat (happier?) mice. So, one of his basic tenets is to practice undereating. This is not, repeat, not a form of anorexia! It is a systematic practice of undereating over a long period of time - say, one year - until you are 10% to 25% under your "set point" or your characteristic weight when you don't overeat or undereat. Walford calls this CRON, an acronym for Calorie Restriction with Optimum Nutrition and he achieves this goal through eating lots of salad, little fat, lean meats and fasting 1 or 2 days per week. He hopes to reach the age of 120 and has written a book called "The 120 year Diet Plan."

So, if your normal weight is 150 pounds, after one year on the no-stress CRON way of eating, you could be a lean and mean machine of about 125-130 pounds. I'm trying it. I started at 122 about 4 months ago and now I am about 116. My goal CRON weight is between 105 and

*(continued on page 2)*

110 which is about a 10% reduction from a pretty normal weight. The goal here is not to diet in the usual sense, but to systematically undereat so that you reduce your weight set-point over a long period of time.

Walford contends that all the health parameters change, not only weight but blood pressure, cholesterol, triglycerides, blood sugar, thyroid status, white blood cell count and a host of other aging tests like fasting insulin and hemoglobin A1C. Anyone trying CRON should get the appropriate physical exam and blood work done before starting if only as a measure of success and every six months thereafter. After only 4 months – and believe me, I am not depriving myself of much – I have noticed not only a 6 pound decrease in weight but a decrease in blood pressure that, for the past few years, had tended to be on the high side.

### *Modifiable Risk Factors of Aging: Part I*

We know (all too well) that certain unavoidable things happen to us as we get older, things like wrinkly and/or thinned skin, less endurance, more fatigue, certain inevitable changes in body contours along with changes in hearing and vision. But some of us also experience changes that are totally avoidable, like increases in blood pressure, cholesterol and glucose/insulin. Or, chronic inflammatory conditions and toxic conditions which not only affect our joints but our brain cells, arterial walls and heart valves. I will be listing a few modifiable risk factors of aging along with a way to diagnose them when possible and then a plan to eradicate them

First of all, I cannot stress too highly the fact that you must eat properly and exercise, so let's just assume that with every modifiable risk factor of aging that I subsequently mention, you will automatically include proper eating and exercise. This is your very bottom line: In fact, these two factors alone can reverse many "diseases" of aging.

I know you've all heard this before, but by eating properly, I mean primarily no sugar, very low grain intake and high intake of lean meats, vegetables, nuts and fruits. I don't believe that you must do the Walford CRON diet to be healthy on a daily basis. Since I am your designated guinea pig, I am just playing with that now. Secondly, exercise does not necessarily mean extreme sport activity, but brisk walking, swimming, snowshoeing, cross country skiing, etc. a couple of miles 4 or 5 times a week, plus some upper body weights.

1) **Chronic Inflammation:** We baby boomers suffer an epidemic of inflammatory diseases: With our purchases of expensive drugs like Celebrex for our aching knees and Nexium for our burning tummies, we encourage the pharma-

ceutical company's delight in overcharging the American public. But, folks, our joints are just the tip of the iceberg: Chronic inflammation is also a cause of heart disease, senile dementia and atherosclerosis. Not good. (See News-briefs for more on this)

How can I find out if I have chronic inflammation? There are two good lab tests that I or your M.D. can order for you: C-reactive protein (CRP) and Fibrinogen.

How can I fix this problem? Get on the good eating plan. There are also three things which can cause and perpetuate inflammation so you can avoid these:

1) Avoid all trans fats as they are highly inflammatory and will create the series II prostaglandins which are the bad guys in the inflammatory cascade. Read labels carefully as trans fats will be disguised as "partially hydrogenated" and "hydrogenated".

2) The series II prostaglandins are also increased by an overly acidic diet which includes shellfish, red meat, vegetable oils (not olive), dairy, sugar, fried foods, coffee and alcohol, which lo and behold, are the main ingredients of the Standard American Diet. Follow a more alkaline diet which includes more vegetables and fruits. Stress is also acidic, so you might want to do something for that like meditation, Tai-chi or just sitting still and doing nothing for 10 minutes twice daily.

3) You will also want to balance your oils – often we ingest too many Omega 6's and not enough Omega 3's which can also increase the inflammatory cascade. An imbalance here can also cause an irregular heartbeat, low energy, hypercoagulation, dry skin and eczema. I can find out how much of each you need through muscle testing. Usually I find that we will need to increase your intake of Omega 3's which include fish and flax. If fish and flax oil caps make you burpy, use a good lipase digestive aid with them. Personally, most mornings I will grind 3T. of golden flax seed and blend this with 1c. of non-fat milk and a few ice cubes for a before breakfast morning shake. I also take at least 1t. of Nordic Naturals orange-flavored cod liver oil before dinner most nights.

If you have inflammatory pain, you can plump up the cell membranes with fish oils, glucosamine-chondroitin, MSM, ginger, boswellia, turmeric or any of the many natural anti-inflammatories. Different ones work for different people. Pane Away, an essential oil from Young Living and Deep Tissue Oil from Dr. Schulz are both good for topical pain relief. Magnets are terrific for pain relief as well - just tape them on wherever it hurts.

---

Will this slow my aging process? Yep. Without pain and inflammation, our physical bodies will not break down as fast and we will slow the secretion of immune destroying stress hormones.

**Faulty Methylation:** This is one of the easiest to handle and fairly common; 1 in 3 people have a methylation defect. There is an amino acid called methionine in our bodies. When methylated, methionine becomes SAM-e which is then used to repair cells and DNA. When SAM-e gives up his methyl group he is transformed into a very toxic molecule called homocysteine. If we lack certain repair items, then the toxic by product of methylation - homocysteine - keeps recirculating in our bodies (like a faulty muffler spewing toxic byproducts of gasoline into our car interiors... ) causing free radical damage, heart disease, kidney failure, strokes, senile dementia, cervical dysplasia, increased risk for hormonal related cancers and babies born with neural tube defects. Very bad news.

How can I find out if I have faulty methylation? By a very simple laboratory measure of homocysteine levels.

How can I fix this problem? By taking simple nutrients like B12, Magnesium, B6 and folic acid.

Will this slow my aging process? You bet. And it will also keep you from dying prematurely, too.

**Hormone Imbalance:** This is a biggie, and one that affects almost everyone. There are tons of hormones to consider—adrenal and thyroid; the pancreatic hormone, insulin; estrogen, progesterone and testosterone; brain hormones, growth hormones, stress hormones. Balance is the key here.

For example, low levels of thyroid can cause fatigue, hair loss and sluggishness whereas high levels can cause weight loss, insomnia and even cardiac arrest. Low levels of estrogen can cause low libido and osteoporosis whereas high estrogen levels can cause increased risk of breast cancer, uterine fibroids, and fibrocystic breast disease not to mention an impossible PMS. High testosterone levels in men can cause aggressive behavior and hair loss while low testosterone levels can cause decreased muscle mass and low libido.

How can I find out if I have a hormone imbalance? First of all I can muscle test for much of this. Secondly, I like to corroborate muscle testing with salivary hormone testing (the gold standard for hormones) and blood testing. Salivary hormone testing might include levels of estradiol, estrone, estriol, progesterone, testosterone, DHEA, pregnenolone and cortisol, a stress hormone. If there is a problem with your mood, we can also test neurotransmitters through saliva tests. The thyroid

hormones need to be tested with a blood sample and for this I like to order TSH, Free T<sub>3</sub> and Free T<sub>4</sub>. Fasting insulin, glucose and vitamin D also must be tested through a blood sample. The results of these tests can then tell us what we need to do to correct the various imbalances.

DHEA is our anti-aging and anti-stress hormone, but when the body is under a great deal of stress, the body steals away DHEA and creates the Darth Vader of hormones – cortisol. Cortisol will decrease the level of all hormones, including sex hormones, and will promote rapid aging. Pregnenolone is referred to as the "mother" hormone since it is the precursor to all of the steroid hormones in that it can be converted to progesterone then to DHEA or testosterone or healthy estrogen. Vitamin D is actually a hormone not a vitamin and should be baseline tested at least once by a lab test called 25 (OH) D since it affects bone health so directly.

How can I fix this problem? Of course, it all depends on your imbalances, but there are many good and natural ways to handle most hormonal imbalances. In the healthy body, estrogen and other steroid hormones are detoxified by the liver then sent on to the colon for excretion, so hormone balance overlaps with liver health which is part of my next topic, the accumulation of toxins, so read on.

Will this slow my aging process? Oh, my yes. Healthy hormone balance is one of the major keys to healthy skin and bones, increased energy, sexual vitality, increased muscle tone, mental acuity, happiness and long life. You name it – a hormone is probably controlling it.

**Accumulation of Toxins:** We've all heard "You are what you eat." and maybe even "You are what you absorb." But here's what's really so: "You are what you don't eliminate." The symptoms of toxin accumulation or chronic poisoning are legion and here is just a short list: Fatigue, headache, allergies, confusion, anxiety, insomnia, skin rashes, constipation *and* Ones You Don't Want To Get like cancer, heart disease and neurological disorders like Parkinson's Disease. Our lungs exhale toxins along with carbon dioxide and our skin, liver and kidneys eliminate all the rest of the toxins. Of the big four, the liver is the most important—our body's Four Star General who gives over 200 orders per toxin then sends it to his troops, the kidneys and the skin for further modification.

How can I find out if I have an accumulation of toxins? I can muscle test for this and in fact, I do this with patients on a daily basis. We can order lab tests as well – such as antioxidant levels – just to see where you are with your detoxification capabilities. Just a reminder: We are required to eliminate not only exogenous toxins like heavy metals, chemicals and fungi, but

also endogenous toxins like the byproducts of metabolism of our very own hormones (like estrogen).

How can I fix this problem? First of all and most important, if environmental, you can find out where your toxic overload is coming from and avoid it. Secondly, we need to remove toxins from the intestinal tract so the liver will have room to dump the toxins it is processing. If there is no room at the inn, the liver turns the toxins back into the blood stream and lymph and that not only feels awful but will make you sick.

So, it's very important that we keep the bowel clean and purring right along with large enough doses of magnesium citrate to cause good bowel movements along with bulking agents like Herbal Bulk which contains psyllium, prune powder and apple pectin and also contains bentonite which adsorbs toxins 2000 times

its own weight as it chugs merrily through your body brushing and sweeping. We might also want to give the body digestive enzymes so it can break down the food better.

After a period of cleansing, we might want to heal the gut with l-glutamine, slippery elm, peppermint, and/or an acidophilus/bifidus product.

Third, since our overworked livers are being asked to neutralize over 60,000 toxins on a daily basis and the big red blob under our right rib cage is understandably crying uncle much of the time, we need to feed the cranky General now and again. The liver is very nutrient dependent. It loves snacks of amino acids such as glycine, taurine, glutamine, arginine, and ornithine; it sometimes requires sulfur products like n-acetyl cysteine or MSM. The liver loves vitamin C sometimes in great quantities and other

anti-oxidants like those found in cruciferous vegetables, green tea, grape seed extract, curcuminoids, alpha lipoic acid, CoQ10, and lyco-pene. For long term nourishment, the liver loves milk thistle and phosphadityl choline.

Will this slow my aging process? You bet and with a happy liver, you won't come down with the Ones You Don't Want To Get.

In Part II of Modifiable Risk Factors of Aging [next newsletter], I will be discussing sugar metabolism and glycosolation, immune dysfunction, impaired energy production or mitochondrial depletion, chronic stress, enzyme deficits and oxidative stress.



## Announcement!

[www.drbea.com](http://www.drbea.com)

My website will be up and running by December 15, 2002. It contains not only wonderful photos of me, but lots of information on health and healing. Please check in often as I will be sharing new health information on a weekly basis. I will also be putting my quarterly newsletter on my website in an easy-to-print format.

If I don't hear from you, I will assume that you have web capabilities and will be reading my newsletter on the web. If you aren't on the web, and you are an existing patient, please let me know your address by phone or postcard and I will be happy to snail-mail you my newsletter every quarter.

**Please feel free to email me at [beakj@earthlink.net](mailto:beakj@earthlink.net) with your questions and suggestions. I guarantee privacy on all matters, and will try to answer all of you personally.**

**Dr Bea's Newsletter is published quarterly. It is researched and written by Dr. Bea Knight-Johnson, D.C. • 948 North Street, Suite 1 • Boulder, CO 80304 • 303-440-6526**

**No statement in this newsletter shall be construed as offering diagnosis, cure, mitigation or prevention of any disease. Anyone having questions regarding the content of this newsletter should contact their own health care provider for verification.**

# Brain Nutraceuticals for Normal People\*

I have found that, at least for me, it's better not to confuse the body with too much nutrition at one time. Therefore, I have developed a new schedule in which I treat my brain every other day and my body every other day but, of course, the two overlap.

Please note: This program is in no way a substitute for healthy eating and exercise! It is an addition to your already healthy lifestyle. Here is some good brain nutrition for you and the cost. (Yes, brain nutrition is pricey and no, I don't know why)

1) **Acetyl-l-carnitine:** By far my favorite. ACL is a brain energizer and revitalizer. It lights up all the little cells in the brain and increases neurotransmitters to enhance memory and focus. It repairs stress related damage to brain cells, relieves depression and is an immune enhancer to boot. Sometimes I can feel the effects of a 800 mg. dose in as little as 20 minutes. Because it is an energizer, don't take it any later than 3PM.

**Dosage:** You could take 500-1000 mg of ALC every other day. Brain Vitale from Designs for Health is a powder which contains 750 mg. ALC with every quarter teaspoon. It will also give you 200 mg. of PS which I will talk about next. Because I respond to ALC so well, I take 800 mg in pill form on the off day, too. **Price:** The Brain Vitale is \$64 for 50 grams and will last you probably a month and a half. The ACL in capsule form is \$60 and contains 90 capsules each 800 mg, so this would last you 6 months at 1 every other day.

2) **Phosphatidyl Serine:** This is a phospholipid which is good for the overall health of the brain. Since the brain has an enormous amount of fatty tissue, it automatically gobbles up any phospholipid we throw at it. PS will enhance memory and recall, help with age-related memory loss, slow dementia and will also help with seasonal affective disorder. Also good for kids with ADHD.

**Dosage:** You could take 600 mg every other day. Your Brain Vitale dose above will supply you with 200 mg. of PS, so if you purchase DFH's PS powder, you could take 1/2 t., or 400 mg every other day. That added to your Brain Vitale dose would give you 600 mg. of PS. which is a nice big dose for your brain. **Price:** The PS powder is \$32 for 20 grams which would last you about a month.

3) **Phosphatidyl Choline:** This is another phospholipid which the brain loves. It's a greatly enhanced and absorbable form of lecithin. You cannot do too much PC because it is totally non-toxic and your entire body loves it as it is the basic building block of every membrane in the body. Great for the liver in helping it to detoxify chemicals and good for hormone balancing, too. Without PC, cells age faster and do not function optimally.

**Dosage:** You could take 2T of the powder every other day which will give you 7 grams of PC. Take it with other powders or at meals as PC increases the absorption of other nutrients. **Price:** The powder is \$24 for 300 grams which is a lot. It would last you about a month and a half.

4) **Glycerophosphocholine or GPC:** This is a new brain nutraceutical which works more effectively than PC and is excellent for cognitive decline, a wonderful addition to any brain health program.

**Dosage:** Take 1-325 mg capsule of GPC every other day. If you are experiencing cognitive decline, take as many as 4 caps or 1200 mg. Research shows that GPC works better than current Alzheimer's drugs and without the side-effects. **Price:** \$36 for 30 pills, so it would last you about 2 months for normal wear and tear.

**\*Do 4 X the amount mentioned above if you are already experiencing cognitive decline.**

**Rough estimate for monthly cost doing the above schedule: \$116.00**

**CRP (C-reactive protein):** *Better predictor of heart disease risk than cholesterol:* Ah, how the mighty do fall. Like the acid rain eroding the presidential faces from our venerable monument in South Dakota, so is the latest information from the medical research geeks chipping away at the cholesterol-causes-heart-disease paradigm. The first large whack was the homocysteine revolution, resurrected 10 years ago which stated that excess homocysteine not only created great heart disease risk but a host of other bad things like Alzheimers and strokes. Then came Syndrome X (or Metabolic Syndrome as it is now being called) which suggested that the mishandling of sugar had a lot to do with heart disease.

Now CRP, which measures arterial inflammation, has joined the ranks and as far as I am concerned, is the final nail in the coffin destroying the cholesterol paradigm of the past 40 years. It's not just cholesterol as we have been lead to believe (so the drug companies can sell us expensive statins) – it's a collection of bad things including your inflammatory measure, your excess sugar, your lifestyle (Do you smoke? Drink to excess? Eat transfats? Exercise? Stress?) and of course, your cholesterol levels, especially your LDL. But, now, hopefully, cholesterol has been put into proper perspective.

A large 8-year study was conducted using 27,939 healthy women 45 years old and older. The study published in the *New England Journal of Medicine*, 11/14/2002 concluded that women with high C-reactive protein were twice as likely to have a fatal heart attack or stroke as women with high cholesterol. It was discovered to be an even a greater predictor than LDL cholesterol which has, for years, been the gold standard for heart danger. CRP is an inexpensive blood test that all men and women over 45 should have pronto and one that I can order for you. Anything over 4 mg/l is considered high and needs to be addressed.

(An interesting study in *Diabetes*, 10/01 reports that high CRP levels also predispose people to Type II diabetes and the Metabolic Syndrome that usually precedes a diagnosis of Type II diabetes.)

**The Dark Side of vitamin E:** A study reported in *JAMA*, 8/14/02 suggests that vitamin E supplements exacerbate and prolong respiratory infections. Although the number of infections did not differ across the two groups (placebo and vitamin E groups), the people taking 200 iu's of E daily were sick longer, experienced more symptoms and were more likely to experience fever and activity restrictions than those who did not take the E supplement. However, strong evidence continues to show that vitamin E is helpful in guarding against heart disease and cognitive decline. Perhaps we should all lower our dose of vitamin E to less than 200 iu's per day especially in the cold and flu season.

**Low Back Pain and Excess Acidity:** Recent research in Germany found that many cases of chronic low back pain are a result of being too acidic. Although the German study

concentrated on low back pain levels, an acidic condition in the body can create pain anywhere. So if you have chronic pain or any kind of diffuse, hard to pin down pain (the pain from fibromyalgia, for example) you might try an alkaline mineral supplement (*Alternatives*, 10/02) or Alkaseltzer Gold for a three week period to see if it changes your pain levels. Bump up your fruits and vegetables and decrease your colas, dairy, alcohol and sugar as well.

**More on Heart Disease:** In a study of 1,274 people with existing coronary heart disease, those with a fasting glucose level of between 100-125 mg/dl had almost 3 times the risk of having a coronary heart disease event compared with those with levels below 79mg. dl. (*Family Practice News*, 5/1/02) I am convinced that our comfort range for fasting glucose is much too high. Anything below 125 seems to be O.K. with many lab reference panels. I like to see glucose levels under 100 and the lower the better.

**A Word on Breast Surgeries:** Women who undergo lumpectomies are just as likely to survive for at least 20 years as are women who have their entire breast removed. (*NEJM*, 10/17/02)

**Weak Old Worms:** Or, why it is important to do your resistance exercises. From experiments performed with a tiny worm called *caenorhabditis elegans*, researchers found that it's not the brain that goes in old age, it's the muscles. I have no idea how they ascertained this - whether they had two groups of worms, one group with tiny dumbbells and treadmills and the other with comfortable couches and 24 hour TV access.

Nonetheless, they studied the very old worms (all of 18 days old) and realized that they didn't move around as much and looked smaller. For example, muscle fibers are normally bundled together neatly but with age become disorganized. Like aging people, the worms lost muscle mass and became weaker and more frail, a phenomenon called sarcopenia. They noted that the cellular changes in these tiny *c. elegans* worms are remarkably similar to those seen in elderly *h. sapiens* humans undergoing sarcopenia. (*Science News*, 10/26/02)

**Update on My Supporting Organic Farmers Experience:** It's not something I would do again. There was nothing wrong with the produce at all, especially the muskmelons which I got most of July and the fresh eggs that I purchased most weeks. First of all, I didn't have a choice and my weekly bag contained many vegetables that I don't like or don't eat, like eggplant, potatoes and hot peppers. Secondly, I thought I would really like "making do" with what I got - like some 19th century farm wife. Wrong. I'm a 21st century busy doctor and don't want to do that. And thirdly, I had to go pick up my bag of produce every Friday which became tedious. I am not saying you shouldn't do it – it's just not for me. I will just look forward to our great Farmer's Market and pick up produce that I want there.