

## James L. Holly, M.D.

### My Personal Supplement Regimen

By: James L. Holly, MD

Some time ago, I promised to discuss the supplement regimen which I personally follow. Sharing this lets our readers know that the contents of the articles in the *Examiner* are not only expected to change reader behavior and health, they also impact my health and behavior.

I have not always been an advocate of extensive supplementation with vitamins, minerals and antioxidants. My wife has taken vitamins for years, and, to be honest, there was a time when I suggested that this was not reasonable. She would suggest that my opposition was stronger than that. Needless to say, I have come to appreciate her wisdom and the health benefit of fortifying the body with essential nutrients, vitamins, minerals and supplements for maximum health.

As long as this is an autobiographical examination of supplements, let me tell you my personal goal in regard to longevity. It is my desire, and I have asked the Lord for this blessing, to see my grandchildren's grandchildren. In order to know my great, great grandchildren; I have to live healthily to 98 years of age, or longer. Now, before you tell me that that is improbable let me tell you that while this is my expectation, I will follow the Psalmist's admonition and "Give you expectations to the Lord." If I don't achieve this goal, I will not complain, but if I do, to hold the daughter of my daughter's daughter's daughter, will be a great joy. And, it is an anticipated joy, which makes it worth while to exercise, eat right, buckle my seat belt and take supplements.

What I do, I believe, is the beginning of what everyone ought to be taking as far as supplements are concerned -- vitamins are only a part of the issue. In order of their priority and importance, here is what my wife and take every day.

1. For health and wellness, the most critical supplement is **Omega-3 Fish Oil**. There are several available, but the higher the grade, the more expensive. Most of the Omega-3 Fish Oil sold in this country comes from a few sources and much of the variety is based on repackaging or re-labeling. A combination of four grams a day between DHA and EPA omega-3 is ideal with some requiring more. There are excellent blood tests -- not inexpensive -

- to determine if you are taking enough fish oil. Whatever brand you purchase, make sure that it is considered pharmaceutical grade. This means that the toxic heavy metals and other contaminants have been removed.

Basic Foods in Beaumont sells a reliable, high quality omega-3 fish oil supplement. By the way, my grandchildren, children and parents also take fish oil. The benefits of omega-3 fish oils are enormous for the young, the middle age and the elderly. There are exciting on-going, double-blind studies to evaluate the presumptive benefits of omega-3 supplements in children with attention deficient disorder. (For more information see SETMA's website, [www.setma.com](http://www.setma.com) or *The Examiner*, March 13, 2003, March 30, 2003, September 4, 2003 & September 11, 2003)

2. The second most important supplement is the antioxidant, "**Glutathione**." (for more information see *The Examiner*, October 17, 2003) Unfortunately, humans can't take oral glutathione because unlike the rats in which the research on glutathione supplementation was done, humans have an enzyme which denatures orally consumed glutathione before it is absorbed. Most of the nutraceutical world doesn't know that and therefore sales glutathione which does not help those who are taking it.

Glutathione levels in the human body have to be raised by taking the precursors of glutathione such as **L-methionine** and **N-Acetyl Cysteine**. (For more information see *The Examiner*, October 23, 2003) A therapeutic dose of both is 500 mg BID. Also, eating whey protein can raise your glutathione levels. (See *The Examiner*, October 30, 2003)

The following "co-factors" are all important to the production and function of glutathione and should be part of a supplement program: Vitamin B-1; Vitamin B-2; Vitamin B-6; Vitamin B-12; Vitamin C; Vitamin E; Folic Acid; Selenium; Magnesium; Vanadium; Zinc. Any supplement program should include all of these.

3. The third supplement is **Co-Q 10**. (See *The Examiner*, October 24, 2002) Everyone on a statin (cholesterol lowering medication) **MUST** be on Co-Q 10 and at a much higher dose than is in any mega-antioxidant currently on the market. Lipid specialists at Baylor College of Medicine have suggested that SETMA design and run a clinic trial on the proper dose of Co-Q 10 in statin-treated patients. I personally believe that dose will be at least 200 mg per day. I would recommend 100 mg for everyone and possible 200 mg. If the patient has heart disease, particularly CHF, Diabetes, or chronic inflammatory diseases, I would recommend 400 mgs a day. Again, this is not inexpensive but it is not exorbitant either. Co-Q 10 which is taken in a pill form may not be bioavailable. Co-Q10 absorption requires dietary fat, thus the most effective formulation is in a gel cap. For more insight about the benefits of Co-Q 10 in specific disease conditions see *The Examiner*, October 16, 2003)

4. The fourth and fifth supplements are **Vitamin E** and **Vitamin C**. Coupled with 2 and 3 above and with number 5 below (Lipoic Acid), these antioxidants comprise what is coming to be known as the "antioxidant network." (for more information on the "antioxidant network," see *The Examiner*, September 25, 2003) One puff of cigarette smoke -- actively or passively inhaled -- contains over 3,000,000,000 free radicals which puts the oxidative stress on the human body is at an all time high. (for more information on free radicals and "oxidative stress" see *The Examiner* June 19, 2003)

To counteract the negative consequences of our environment, diet and normal body chemistry, which is constantly producing free radicals, the "**big five to stay alive**" are becoming more and more important. It is possible to measure the "oxidative stress on the human body and therefore to show the increased demand for the deactivation of these "free radical" poisons with antioxidants.

Vitamin E is one of the most complicated of the nutraceuticals because we now know that it is the **D-gamma tocopherol** Vitamin E rather than the D-alpha which is most beneficial, particularly in regard to cholesterol regulation. D-gamma prevents the oxidation of LDL (low density lipoprotein and one of the most dangerous lipid particles) and therefore decreases the oxidative stress on the body. D-gamma is available but D-alpha is the most common.

Dl-alpha, synthetic Vitamin E, is less expensive to produce and is less beneficial as a supplement. Also, plant sources of Vitamin E are superior to animal sources, as animals are dependent upon plant food to gain Vitamin E, while plants synthesize Vitamin E. Foods naturally rich in vitamin E include nuts, such as almonds, vegetable oils, seeds, wheat germ, spinach and other dark, green leafy vegetables.

One free radical that Gamma Tocopherol inhibits is peroxynitrite, a powerful oxidizer that is not touched by other forms of Vitamin E. In a report in the National Academy of Sciences it was recommended that Vitamin E supplements should contain at least 20% Gamma Tocopherol (Tocopherol is the active part of Vitamin E). Recently, the National Academy of Sciences established an intake ceiling of 1100 I.U for synthetic and 1500 I.U. for natural vitamin E.

5. The sixth supplement is **Alpha Lipoic Acid**. Two isomers of this powerful antioxidant are commercially available -- "R" and "L". Recent research has shown that the "R" isomer is the beneficial one and that the "L" isomer actually counteracts the beneficial result of the "R". I recommend 100 mg twice a day. Of all of the supplements I take, I think of this is one of the most important for everyone. More sound science has been done on this

supplement than almost all the others. For more information on this supplement see *The Examiner* September 23, October 3, and October 10.)

6. Beyond these there are other supplements which are imperative such as:
  - a. Folic acid (one of the B vitamins) in at least 800 units a day. This is one of the most important supplements for pregnant women and for those interested in decreasing the risk of heart disease. Folic acid lowers the levels of heart homocystiene in the body and therefore decreases the risk of heart disease. A blood test for heart specific homocystiene is available.
  - b. Biotin (another B vitamin) in at least 50 mcg a day
  - c. Pantothenic acid (B5) 500 mg BID – B5 is an important nature protection against cholesterol abnormalities and is an important adjunct to pharmaceutical treatment of high cholesterol along with L-methionine and N-acetyl cysteine.
  - d. Vitamin K 60 mg a day.
  - e. Melatonin .5 mg a day -- this is a powerful antioxidant which can also be a beneficial natural sleep aid, but should be taken in very small doses. It is also helpful in adjusting to “jet lag” during long-distance traveling.
  - f. Grape Seed Extract – this is another powerful antioxidant which helps decrease the oxidative stress on the body by deactivating free radicals.
  - g. Niacin 40 mg a day
  - h. Pyridoxine 30 mg a day
  - i. B12
  - j. Vitamin A (Beta carotene)
  - k. Vitamin D 400 units
  - l. Riboflavin 30 mg a day
  - m. Thiamine 30 mg a day

(For more information on both vitamins and trace minerals see Your Life Your Health in the January 16, 2003 *Examiner* or visit SETMA’s website at [www.setma.com](http://www.setma.com))

7. A series of trace minerals also are important for overall metabolic health including
  - a. Manganese Gluconate 6 mg a day
  - b. Inositol 150 mg a day
  - c. Iodine 225 mg a day
  - d. Chromium 300 ug qd
  - e. Zinc 10 mg qd
  - f. Copper 3 mg qd
  - g. Boron 3 mg TID
  - h. Bromelain 50 mg a day
  - i. Selenium 200 mcg qd

- j. Choline Bitartrate 90 mg a day
- k. Lycotene 100 mg qd
- l. Molybdenum 50 ug po qd
- m. Cal-citrate 300 mg a day

This is a beginning of a discussion on what will make a difference in your health and longevity. While it may not be possible to get most people to take all of these, I am not prepared to tell anyone that they are doing something significant for their health with a great deal less.

In coming weeks, we will continue to discuss what you can do to “take charge” of your own health. Increasingly, I am telling my patients that if they are not willing to eat right, exercise and eliminate risky behaviors like smoking and not wearing their seat belts, all of the medications which I can give them, will not help. Never forget, in fact, always remember, it is your life and it is your health. It is also your responsibility.