

# FACTS ABOUT

# VEGETARIANISM

by Ronald L. Myers, CNC

As you are aware, reams of information have been written about this subject. There are *arguments* pro and con regarding a vegetarian lifestyle. In this issue I am not presenting an argument regarding vegetarianism, I prefer to present facts. They are what they are and can be demonstrated. Being presented with the facts we can then choose to accept or reject them.

In dealing with vegetarians across my career, I have classified them into three broad categories, they are; 1) those who have come to believe it is a healthier way of eating, 2) those who object to killing animals for food, what I call philosophical vegetarians, and 3) those who are vegetarian for religious reasons. In my experience, category 1 vegetarians are the easiest to encourage to begin eating some animal source protein again. Category 3 vegetarians are, in all probability, going to remain vegetarians and should be supplemented to provide the nutrients that their diet does not.

This is of necessity a brief summary of the subject at hand.

## **GENERAL BLOOD CHEMISTRY PARAMETERS**

Some time ago, a friend and colleague of mine accepted a challenge to identify any vegetarian patients in a group of blood chemistry panels. To make a long story short, he succeeded in identifying 6 out of 6 vegan patients in the group. How did he do it?

It should not be surprising that the majority of vegetarians, especially vegans, present significant anemia due to eating a Vitamin B12 deficient diet.<sup>1 2</sup> This is not my unsupported opinion. I have seen it on blood chemistry panels of vegetarians and it is supported by peer-reviewed literature and even vegetarian literature acknowledges the B12 issue of vegan diets. Many vegetarian publications encourage the use of eggs and dairy to provide this essential nutrient. B12 anemia presents itself on the blood chemistry panel as follows:

MCV increased greater than 89.9 cu microns

MCH increased greater than 31.9 cu microns

RDW increased greater than 13

Methylmalonic acid (serum or urine), increased above laboratory range

<sup>1</sup> Dunne, L. The Nutrition Almanac, 3rd ed. (McGraw Hill; New York)

<sup>2</sup> Abrams, H. Leon, "Vegetarianism: An Anthropological/ Nutritional Evaluation," Journal of Applied Nutrition 32:2, (1980)

The long-term health consequences of B12 deficiency range from serious to life threatening, including various neurological conditions and pernicious anemia.

Another common observation on blood chemistry panels of vegetarians is generally decreased cholesterol of less than 160 mg/dL, which explains common vegetarian complaints of low energy, lack of stamina and difficulty dealing with stress. (Adrenal insufficiency.)

### **A FEW COMMON MYTHS REGARDING VEGETARIANISM**

One of the most common myths relating to vegetarian diets we have already touched on and that is that *Vitamin B12 can be obtained from plant sources*. Claims are made that B12 is present in certain algae, tempeh (a fermented soy product) and brewer's yeast. All of them are false.

Like the niacin in corn, the B12 analogues present in algae and tempeh are not bioavailable. We know this because studies done on people's blood levels of B12 remained the same after they ate spirulina and tempeh; there was no change, clearly indicating no absorption by the body<sup>3</sup>. Further, the ingestion of too much soy increases the body's need for B12<sup>4</sup>. Brewer's yeast does not contain B12 naturally; it is always fortified from an outside source.

The fact that Vitamin B12 can *only* be obtained from animal products is one of the strongest arguments against veganism being a "normal" way of human eating.

### **SUPPLEMENTATION:**

**B12 2000** 1 lozenge 3 times a day dissolved in the mouth. This product provides 2000 mcg of vitamin B12 (as cobalamin) along with 800 mcg of folic acid and 2 mg of B6 (as P-5-P).

Another potentially dangerous myth promoted by some vegetarian "authorities" is that the human body has the ability to convert excess omega 6 fatty acids (from plant sources) into omega 3 fatty acids obtained from animal sources. The work of Dr. Mary Enig, of the University of Maryland, and other real authorities have shown that the body CANNOT change the omega number of fatty acids!! The body can change the fatty acid's degree of saturation and also its molecular length, but not its omega number<sup>5</sup>. In other words, omega 6 fatty acids can only be converted into other omega 6 fatty acids; omega 3s only into other omega 3s.

Two very well known omega 3 fatty acids (EPA and DHA) are critically involved in the health of the brain and immune system. To think that following a diet that intentionally eliminates these **essential** fatty acids is a healthier way of eating is insane!

Another fact that is not widely published in vegetarian circles is the danger of consuming too many omega 6 fatty acids. Both omega 3 and omega 6 EFA's are needed by the body, but when the balance is weighted significantly to the omega 6 side of the equation the body's ability to use

<sup>3</sup> Scheer, J., Health Freedom News, Mar 1991, p 7

<sup>4</sup> Smith, A., Soybeans: Chemistry & Technology, vol. 1, 1972, pp 184-188.

<sup>5</sup> Fallon, S., Enig, M., "Tripping Lightly Down the Prostaglandin Pathways," J. of PPNF, Fall 1996; Lands, W., "Biochemistry & physiology of n-3 fatty acids," FASEB J., vol. 6 1992, pp 2530-2536.

the omega 3 family of EFA's is impaired. Many researchers today are telling us that the ratio of omega 3 to omega 6 EFA's in the standard American diet is significantly weighted to the omega 6 side of the scale. As you are aware, the standard American diet is hardly vegetarian by anyone's estimation. Independent researchers like Enig, Yohuda and others, feel a good balance between omega 3 and omega 6 fatty acids is a ratio of 1:1 or possibly as high as 1:4. Estimates of the actual, where the rubber meets the road ratio in the standard American diet range from 1:25 to as high as 1:50.

It appears from this that our diet is absolutely overloaded with omega 6 and we have the health problems to prove it! We could wonder, what is the ratio of omega 3 to 6 in a standard vegetarian diet that virtually eliminates the omega 3 family of EFA's?? available only from animal sources with the exception of flax seeds? From this alone it seems hard to conclude that this is a healthier way of eating.

### SUPPLEMENTATION:

**Optimal EFA's** a new product from Biotics Research Corporation providing omega 3, 6 and 9 EFA's in the correct balance  
2 capsules with each meal.

**Biomega 3** provides marine source omega 3 EFA's purified to remove mercury, PCB's etc. May be the better choice for the vegetarian patient.  
2 capsules with each meal.

**Flax Seed Oil** provides omega 3, 6 and 9 EFA's with more omega 3 than 6 or 9.  
2 capsules with each meal.

What about Vitamin A? Vitamin A is principally found in animal products. Plants do contain beta-carotene, a substance that the body can convert into vitamin A. The impression given by some vegetarian sources is that beta-carotene is just as good as vitamin A. This is not true.

First of all, the conversion from carotene to vitamin A can only take place in the presence of bile salts and zinc. This means that fat must be eaten with the carotenes to stimulate bile secretion. Additionally, infants and people with hypothyroidism, gall bladder problems or diabetes either cannot make the conversion or do so very poorly. Finally, the body's ability to convert carotene to vitamin A is not very efficient: it takes 46 units of carotene to make one unit of vitamin A. What this means is that the sweet potato (containing about 25,000 units of beta-carotene) you just ate will only convert into about 4,000 units of vitamin A (assuming you ate it with fat and do not have a thyroid or gall bladder problem)<sup>6</sup>.

Relying on plant sources for vitamin A is not a good idea. This is why good-old-fashioned butter is a virtual must in any diet. Butter is rich in vitamin A and will provide the intestines with the fatty material needed to convert vegetable carotenes into active vitamin A. Vitamin A is all-important in our diets, for it enables the body to use proteins and minerals<sup>7</sup>, is essential for kidney function, needed by the eyes and the reticuloendothelial system (R.E.S.).

<sup>6</sup> Fallon, Sally, "Vitamin A Vagary," J. of PPNF, Summer 1995.

<sup>7</sup> Jennings, I.W., Vitamins in Endocrine Metabolism, Charles Thomas, 1970, pp. 39-57, 84-85.

**SUPPLEMENTATION:**

**Bio AE Mulsion Forte** provides 12,500 I.U. of emulsified Vitamin A per drop.  
6 drops per day taken in pure water (no fluoride or chlorine).  
**Zn-Zyme Forte** 1 – 2 tablets with each meal.

Last but not least—the real bottom line—WHO LIVES THE LONGEST—vegetarians or meat eaters???

Studies have shown the annual all-cause death rate of vegetarian men to be slightly more than that of non-vegetarian men (0.93% vs 0.89%). Similarly, the annual all-cause death rate of vegetarian women was shown to be significantly higher than that of non-vegetarian women (0.86% vs 0.54%)<sup>8</sup>.

Russell Smith, PhD, in his authoritative study on heart disease, showed that as animal product consumption increased among study groups, death rates decreased! Such results were not obtained among vegetarian subjects. For example, in a study published by Burr and Sweetnam in 1982, analysis of mortality data revealed that, although vegetarians had a slightly (.11%) lower rate of heart disease than non-vegetarians, the all-cause death rate was much HIGHER for vegetarians<sup>9</sup>.

The Russians of the Caucasus Mountains live to very old ages on a diet of fatty pork and whole milk products. The Hunzas, also known for their robust health and longevity, eat substantial portions of goat's milk, which has a higher saturated fat content than cow's milk<sup>10</sup>. In contrast, the largely vegetarian inhabitants of southern India have the shortest life-spans in the world<sup>11</sup>.

It is popular in sports nutrition to recommend "carb loading" for athletes, to increase their endurance levels. But recent studies done in New York and South Africa show that the opposite is true: athletes who "carb loaded" had significantly less endurance than those who "fat loaded" before athletic events<sup>12</sup>.

As I wrote at the beginning of this issue, a percentage of your vegetarian patients are going to remain vegetarian regardless of any facts presented to them. Hopefully, this issue will help you help them where they are. I see our job as helping all of our patients achieve optimal health.

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<sup>8</sup> "Death Rates of Vegetarians," Am. Jnl Epidemiol. 97:372 (1973).

<sup>9</sup> Burr and Sweetnam, Amer Jnl Clin Nutr, 1982, 36:873.

<sup>10</sup> Pitskhelauri, G.Z., The Long Living of Soviet Georgia, Human Sciences Press, New York, 1982; Moore, T. Lifespan: What Really Affects Human Longevity (Simon & Schuster; NY), 1990.

<sup>11</sup> Abrams, "Vegetarianism," pp. 74-77.

<sup>12</sup> Carb Loading for Athletes? Not Such a Good Idea," J. of PPNF, Fall 1996.