Protein - Why It's So Important

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By Lita Lee, Ph.D.

Inadequate protein consumption is so widespread that I thought I would put in writing why every body needs animal protein! (P.S. this is an anti-vegan article so, if you hate animal protein, don’t read this). Source: Associates Seminar by Dr. Howard Loomis of EFI; San Francisco, February 2001 and Ft. Lauderdale, FL, February 2002. For books written by Dr. Loomis, please contact EFI at 1-800-614-4400.

All digested foods (protein, carbohydrates and fats) are a source of energy. In addition, digested protein has the following functions critical to life and health. Protein is used in two different ways. Digested protein is transported to the liver where it is used as food. Plasma proteins circulate in the blood to maintain homeostasis (balance within narrow ranges).

Digested protein is transported to the liver where it is used as food and has three important functions:

1) Growth and repair

2) Formation of essential compounds, such as enzymes, hemoglobin, insulin, thyroid hormone, epinephrine, neurotransmitters and eye photoreceptors.

3) Forms antibodies (immune system function).

Plasma proteins circulate in the blood to maintain homeostasis (balances pH, temperature, volume, blood pressure, tonicity, electrolytes, etc. Plasma proteins aren’t used a food. These have three basic functions:

4) Maintains pH (acid-alkaline balance) by buffering excess acid (H+) an alkalinity (OH-).

5) Maintains water balance and the other functions important in homeostasis listed above.

6) Transports nutrients (cholesterol, ionic calcium, hemoglobin, amino acids, etc.) and detoxifies wastes (dead pathogens and other wastes) and drugs (including prescription drugs).

Protein (and calcium) deficiency symptoms (either not eating or not digesting protein (protease deficiency):

- Mucous membranes too wet (runny nose, runny eyes)
- Edema (water retention) – because protein holds water in the extracellular fluid (blood) and if you have low protein, water leaks out.
- Can’t or won’t exercise because become stiff and sore.
- Muscle cramps (calcium or potassium deficiency).
- Menstrual cramps and other female problems always involves protein deficiency (and hypothyroidism).
• Hypoglycemia (because 45% of protein is converted to sugar so if you cannot digest protein, you cannot convert it to sugar).
• Cold hands and feet and other hypothyroid symptoms.
• Arthritis, joint problems.
• Gum problems.
• Anxiety
• Immune system problems anywhere, such as lung problems, frequent infections, etc.
• Tendency towards blood clots.

If you have trouble digesting protein, try these Thera-zyme multiple digestive enzymes:

• **Bil** – digests fat and protein. Take two caps before each meal 3x/d.
• **HCL** – digests fat, sugar and protein and helps a sluggish digestive system. Take two caps before each meal 3x/d.

Contraindication: gastric problems of any kind (hiatal hernia, ulcer or gastritis) in which case Thera-zymes **PAN** or **VSCLR** and **Stm** would be indicated.

**How much animal protein is optimum per day?**

Below is a paragraph from Dr. Ray Peat, private consultation:

Four ounces of meat contains about 25 grams of protein, so having that three times a day would meet the basic (low) requirement. A quart of milk contains 33 grams of protein, so 3 quarts a day would be close to the optimal amount of protein. A dozen eggs per day would do it, but this would provide too much PUFA (omega-3 and -6 fats).

For the average slightly hypothyroid person, I've seen very sick people suddenly get well when they increased their protein to 70 grams, but it isn't the amount I recommend for good sustained health.

Muscle meats and liver contain too much tryptophan for an adult if those are the main protein source, and will contribute to hypothyroidism, etc., but when the metabolic rate is optimal, most adults who aren't completely sedentary probably should have around 130 to 150 grams. If their calorie consumption is around 3000 kcal per day, that's about 25% of the calories as protein. Great Lakes Gelatin (cooked collagen), a prothyroid protein is recommended to balance the anti-thyroid amino acids in muscle meats.

**Are Protein Powders Good?**

Protein powders such as soy, whey and rice, are very popular but are they healthy? Is there a healthy protein powder? Yes! Try Great Lakes Gelatin!

**Soy protein powder**

Soy protein powder is probably the unhealthiest of all the protein powders. For excellent articles and documented research on the many adverse health effects of soy go to [http://www.westonaprice.org/soy/index.html](http://www.westonaprice.org/soy/index.html). I have discussed soy health dangers in several newsletters including January 2007, April 2002 and others.
**Whey protein powder**

Whey is unhealthy because it has an excess of tryptophan, which (through its conversion into serotonin, mostly) is associated with heart failure, and other things, since it's strongly antithyroid. Whey would just reduce the value of good proteins such as eggs, milk, cheese and meat. Protein starvation shifts the body's balance toward serotonin dominance, and unless people ate a lot of gelatin, whey would tend to create some of the problems that occur in protein deficiency, such as hypothyroidism, memory and mood problems, increased blood viscosity and clotting, and inflammatory conditions. Tryptophan/serotonin stimulates cell division, causing thickening of the lining of blood vessels and cancer growth, so many of the problems of aging are the same as serotonin dominance. And the dehydration process creates oxidized/toxic compounds. As your intake of tryptophan increases, formation of serotonin tends to increase, with the potential of increasing clotting, edema, lethargy, inflammation, cancer, etc. Serotonin promotes prolactin secretion (synergizing with estrogen in promoting cancer, disturbed fluid/salt regulation, and mood changes), and also stimulates release of the corticotrophin release hormone, which is itself disruptive and can elevate cortisol inappropriately. (interview with Dr. Ray Peat)

**Rice protein powder**

There are claims that rice protein powder is 80% protein. Yet the assay for whole grain rice says that the % protein is 5.2 – 10.2%. How can rice with only 10% protein be “processed” into a powder that claims to have 80% protein without a tremendous amount of chemical processing? There is another rice protein product called stabilized rice bran but it’s low in protein (14.2%) and high in PUFA (25%) and the rest is carbs and fiber (57.1%) and saturated fat (3.6%). So I don’t recommend either.

**Great Lakes Gelatin**

Gelatin (cooked collagen) is truly a pro-thyroid protein. This brief excerpt on gelatin (cooked collagen) is from Dr. Ray Peat’s January, 2004 newsletter, *Gelatin, Stress, Longevity*. Get the complete newsletter and references from Dr. Ray Peat, P.O. Box 5764, Eugene, OR 97405, $4.50.

Dr. Ray Peat describes why gelatin is an excellent dietary supplement and recommends Great Lakes Gelatin, an inexpensive and pharmaceutical grade of gelatin in one of his newsletters.

People have asked me why I recommend gelatin since I recommend eating only whole foods. That is right, but we rarely eat whole foods, including whole animal foods. We throw away the bones and skin and are told not to eat the skin because it has fat in it. However this is precisely here where the gelatin is found. Gelatin contains thyroid-protective amino acids which can help balance the anti-thyroid (thyroid-suppressing) amino acids prevalent in muscle meats (beef, lamb, poultry and fish), mainly cysteine and tryptophan. In addition, the anti-thyroid amino acids are released in large quantities during stress and hypothyroidism itself increases the catabolism (tearing down) of protein even though general metabolism is slowed down.

Both tryptophan and cysteine inhibit thyroid function and mitochondrial energy production, and have other effects that decrease the ability to withstand stress. Tryptophan is the precursor to serotonin, which causes inflammation, immunodepression, and generally the same changes seen in aging. Histidine is another amino acid precursor to a mediator of inflammation, histamine.
Gelatin contains no tryptophan, and only small amounts of cysteine, methionine, and histidine. The main amino acids in gelatin are glycine and proline; alanine is also present in significant quantity. 35% of the amino acids are glycine, 11% alanine and 21% proline and hydroxyproline. These amino acids have cyto (cell) protective actions. Increasing consumption of gelatin and gelatin-rich foods will support normal function and structure in people who have a tendency towards the degenerative and inflammatory diseases of aging.

Source: Dr. Ray Peat’s January, 2004 newsletter, *Gelatin, Stress, Longevity*. Get the complete newsletter and references from Dr. Ray Peat, P.O. Box 5764, Eugene, OR 97405, $4.50. The above excerpt is from To Your Health, January 2005 issue: [http://www.literee.com/shopexd.asp?id=150](http://www.literee.com/shopexd.asp?id=150).