

## **The Metabolic Detective: A Look at Nutrition for Your Thyroid**

### **Interview with Dr. Edward Bauman**

by Mary Shomon

Edward Bauman, Ph.D. is founder and director of the [Institute for Educational Therapy](#) in Cotati, California. The Institute trains nutritionists and culinary arts professionals in how to identify and correctly use foods for their healing properties. With his emphasis on the healing and health-promoting qualities of whole foods, Dr. Bauman and the Institute are offering an entirely new focus on food, and creating a new profession -- Personal Therapeutic Chef -- in the process. Dr. Bauman is also a nutrition member of the California Institute of Integrative Medicine in Santa Rosa, California and Associate Dean of Nutrition at the University of Natural Medicine in Santa Fe, New Mexico.

Dr. Bauman's philosophy focuses on the belief that a healthy lifestyle is a major key to both maintaining health and responding effectively to illness that occurs from the buildup of stress, toxins, trauma and malnutrition.

According to Dr. Bauman, thyroid disease is not caused by one toxin, nutritional deficiency, or pathogen. Rather, he feels that thyroid problems more likely result from a number of different factors, including environmental exposures, pesticides, chemicals, and a number of deficiencies in nutrients that result from improper diet or toxic overload.

At the same time, Dr. Bauman does not believe that any one food, supplement, or detoxification process is the easy solution to a thyroid problems. It's a function of finding the right balance among a number of approaches, and that's something that's difficult to do on your own. Dr. Bauman believes that most patients will need to find and work with a practitioner - whether it's a nutritionist, or holistic M.D., naturopath, or other insightful practitioner - who understands thyroid problems. Dr. Bauman, who in addition to running IET, also works with patients for nutritional consultations, feels that thyroid problems can be complex, and says "It can take me three to six months to figure out a thyroid problem."

At the same time, Dr. Bauman does not believe that any one food, supplement, or detoxification process is the easy solution to a thyroid problems. It's a function of finding the right balance among a number of approaches, and that's something that's difficult to do on your own. Dr. Bauman believes that most patients will need to find and work with a practitioner - whether it's a nutritionist, or holistic M.D., naturopath, or other insightful practitioner - who understands thyroid problems. Dr. Bauman, who in addition to running IET, also works with patients for nutritional consultations, feels that thyroid problems can be complex, and says "It can take me three to six months to figure out a thyroid problem."

While Dr. Bauman relies primarily on nutritional solutions, he does not oppose using thyroid medications, and he said he frequently works with patients who are on thyroid hormone replacement. Often, he's found that patients who begin nutrient support will go for several months, and then make a decision whether to taper down their medication dosage over time.

In looking at the issues behind thyroid problems, Dr. Bauman identifies three different stages of hypothyroidism:

1. When the gland can't make good hormone.
2. When the gland makes hormone but the gland and peripheral organs don't convert the hormone - an impaired T4 to T3 conversion ability.
3. When the gland can produce the hormone, and the body can convert the hormone, but the immune system can't handle it, and hormones can't get to the receptor site. Dr. Bauman refers to this as a "receptor site problem." According to Dr. Bauman, "Just like

there is a situation known as insulin resistance, there's also a similar situation, thyroid resistance."

Nutritionally, Dr. Bauman focuses then on helping the gland make good hormone, helping the conversion from T4 to T3, and helping reduce or eliminate any receptor site resistance.

According to Dr. Bauman, "I'm a nutritionist, but I'm also a metabolic detective. I'm looking for substances that alter thyroid function by either damaging the gland, or altering enzyme conversion."

Dr. Bauman has worked extensively with patients studying food's effects on the endocrine system, and had some guidelines for thyroid patients on how the toxins we are exposed to, the food we eat, and the nutrients we lack can affect our thyroid conditions, general health, and ability to lose weight.

### **Avoid Aspartame**

A product that is of particular concern to Dr. Bauman is the artificial sweetener aspartame, which goes by the brand name Nutrasweet. He feels that Nutrasweet is a particular problem for thyroid health, and that it can specifically contribute to hyperthyroidism.

In 1981, aspartame came on the U.S. market, and became the first new low-calorie sweetener approved by the Food and Drug Administration in more than 25 years. Aspartame (L-aspartyl-L-phenylalanyl-methyl-ester) is about 200 times sweeter than sugar, and has almost no calorie count. Aspartame breaks down in the body into several components, including: phenylalanine, which can be a neurotoxin, and may trigger seizures in some susceptible people; aspartic acid, which has the ability to cause brain damage in a developing brain; and methanol, which in the body converts into formaldehyde, a toxin.

### **Sweet Poison**

After firefighter Janet Starr Hull collapsed on the job, she was told she had a deadly case of Graves' disease, and might die. Searching for the cause of her illness, Hull discovered what she felt was the culprit in her illness -- the chemical sweetener aspartame - which is found in Nutrasweet. She wrote a book to discuss her efforts at recovery and the little known facts about aspartame. You can read about it in her book, *Sweet Poison: How the World's Most Popular Artificial Sweetener Is Killing Us - My Story*.

The concerns over aspartame are definitely controversial. While the FDA and manufacturer maintain that the product is safe, there are accusations that accurate data has not been made available to the public regarding testing and side effects.

Noted alternative practitioner Andrew Weil, M.D. summed it up well when he said at his site: "Because I have seen a number of patients - mostly women - who report headaches from using it, I don't view it as nontoxic or biologically inert. Some women also find that aspartame aggravates PMS. There are no proven long-term side effects, but there's a lot of suspicion. "

### **Detoxify Mercury and Metals**

Dr. Bauman feels that mercury toxicity is really quite important. According to Dr. Bauman, dental mercury is in close proximity to the thyroid, and the nerves that enervate the thyroid run along the same plexus. When mercury toxicity is present, Dr. Bauman feels that the straight remediation approach to treating thyroid disease isn't always enough.

According to Dr. Bauman, "I've seen people who've had some sort of oral chelation therapy -

nutrients and herbs - to try to clear out the toxins, and their thyroid normalized. This was after having tried thyroid medications, herbs, natural thyroid, etc."

Holistic physician Joseph Mercola, D.O., offers one [protocol for mercury detoxification](#) at his site, focusing on proper nutrition, use of flora or probiotic supplements, use of chlorella or ProChitosan, and other elements.

According to a [statement](#) released by the International Academy of Oral Medicine and Toxicology, "Research has shown that mercury even in extremely small amounts has toxic effects, for example, low dose mercury exposure has been shown to produce neurological pathology, cytotoxicity to nerve tissue."

Some alternative practitioners do not believe that there's clearcut evidence that mercury fillings have any noticeable impact on health. Dr. Weil, for example, has said: "I don't think any study has been large enough or designed well enough to determine for sure whether there is a long-term effect from mercury fillings. One problem is that any harm may be subtle and hard to detect."

The issue of mercury toxicity is a controversial one, because conventional dentists maintain that it's entirely safe. Dental amalgam containing mercury are used extensively in tooth fillings and according to the American Dental Association, in a 1995 survey, up to 76 percent of dentists say they use it as their primary restoration material. According to a [statement](#) from the American Dental Association's Gary C. Armitage, chairperson of ADA's Council on Scientific Affairs., "The World Health Organization, FDI World Dental Federation and the American Dental Association (ADA) all support the continued use of dental amalgam as a safe, durable and cost-effective material to restore teeth."

Stabilizing the adrenal function is really helpful for the thyroid. In particular, according to Dr. Bauman, for people dealing with allergies and stress, the adrenals can be forced into overdrive. And, when there are hormonal changes such as puberty, perimenopause, and menopause, the adrenals and fat tissue are forced to pick up where the ovaries leave off. If adrenals aren't up to the task, there can be various hypothyroid and hyperthyroid reactions.

Some practitioners, such as the United Kingdom's Dr Barry J Durrant-Peatfield, believe that adrenal insufficiencies must be addressed and balanced before thyroid problems can truly be resolved. In some cases, Dr. Durrant-Peatfield used low-dose cortisone with patients.

Adrenal crisis may explain in part the theory behind the highly controversial "[Wilson's Syndrome](#)," which theorizes that stress causes the body to fail at converting T4 to T3, and instead convert to an inactive form of T3 known as Reverse T3. Wilson's proponents advocate treatment with the controversial use of all-T3 therapy, which is not an accepted treatment by most practitioners, conventional or alternative.

When T4 to T3 conversion is suspected to be impaired, Dr. Bauman feels that nutritional supplements can help, and selenium, zinc, vitamin E and B6 supplementation may be needed in order to help enhance the conversion process.

### **Use Hormone-Free Meats**

Hormones that come in via the food chain, can be used by the thyroid for its own constituent tissue. Certain steroids and hormones are fed to animals in the U.S. for example, and when this meat is eaten, according to Dr. Bauman, the body will absorb these "xeno-hormonal" materials. Exposure to those hormones can offset the body's own natural production of hormones.

Organic meats can usually be found at chains such as Fresh Fields or Whole Foods, or local co-

operative markets. The most widely distributed brands include [Laura's Lean Beef](#), Peterson's Pork, or Buddy's Chicken.

## **Avoid Iodized Salt**

According to Dr. Bauman, use of commercial iodized salt is not recommended for thyroid patients. Iodized salt contains aluminum and sugar as stabilizing elements, and those are irritants to the thyroid and can create imbalances. Dr. Bauman believes that "the body can have difficulty dealing with metabolizing refined salt, because the salt is heated at high temperatures, and the body tends to retain the salt and it can become a stimulant."

Dr. Bauman recommends a switch to an unrefined salt, including [Celtic salt](#), Japanese salt, or a good quality sea salt. These salts also have additional benefit, in that they offer some trace elements. Many of these salts are available at natural and health food stores, or online.

## **Add Seaweeds, Chlorella and Algae to Your Diet**

Rather than taking iodine in its straight form, Dr. Bauman suggests thyroid patients consider adding seaweeds to their diet. In particular, Dr. Bauman recommends dulse, a type of northern Atlantic seaweed, which he finds beneficial for hypothyroidism, rather than kelp. Dulse has a far better flavor than kelp, and different mineral composition that seems nutritionally better suited for thyroid patients.

Some natural and health food stores have dulse. You can also check out the sites for [Maine Sea Vegetables](#) and Slocum and Ferris [dulse products](#).

Sodium alginate is a thickener that contains kelp. A good mercury chelating agent and source of trace minerals, it can be used to make a healthy dessert. According to Dr. Bauman, adding two tablespoons of agar/sodium alginate to 1 quart of fruit juice (Dr. Bauman recommends half coconut, half pineapple), makes a nice fruity gelatin.

In an interview with Mary Shomon, Dr. Mercola also recommended the use of seaweeds. Says Dr. Mercola:

"The best source of organically bound iodine that I know of is non-commercially harvested seaweeds. The dose is about 5 grams a day or about one ounce per week. . . . The better seaweeds are hand picked and dried and not typically available in health food stores. They are the absolute best forms of minerals that I am aware of. . . Kelp from the health food store may work, but it really depends on how it was harvested and there is no way to know that reliably, so I rely on seaweed harvesters who hand pick the seaweed and reliably dry them free from contaminants."

Chlorella and algae are also recommended. Chlorella is a single-celled alga that is high in chlorophyll. Chlorella comes from the Pacific Ocean, and according to Dr. Bauman, has high trace elements, good amino acids, good tyrosine, and even good omega 3 fatty acids. Dr. Bauman feels that chlorella and other algae can enrich the diet, feed the gland, and can help with moderate detoxification.

Dr. Bauman believes that coconut is a particularly important food for thyroid patient. Coconut contains monolauric acid, which has strong antiviral property and is soothing fuel for the glandular system. Dr. Bauman suggests thyroid patients incorporate natural coconut into the diet, or buy unsweetened desiccated coconut, or unsweetened coconut milk (such as used in Thai cooking).

Dr. Bauman also suggests that if you can't or don't want to drink cow or soy milk, you can use coconut milk. To make coconut milk, take desiccated coconut and cashews, soak ¼ cup of each with 1 quart of water, blend, then strain, for a creamy, smooth, nutritive blend.

According to noted author and alternative medicine expert, Dr. Ray Peat, "Coconut oil has several thyroid-promoting effects. It contains butyric acid which helps thyroid hormone move into the brain [lithothyronine (T3) uptake into glial cells]. It opposes anti-thyroid unsaturated oils. It contains short and medium chain fatty acids which help modulate blood sugar, is anti-allergic, and protects mitochondria against stress injuries."

In her book, ["The Body Ecology Diet,"](#) Donna Gates' also writes that coconut helps to balance out the thyroid, and recommends it as part of a healthy diet.

### **Eat More Fish and Flax Seeds**

Dr. Bauman believes fatty acids are vital for the uptake of the thyroid. Ocean fish are one good source of fatty acids. While you'd still be better off replacing some meat in your diet with something like canned tuna, some tunas have methyl mercury, so you are better off going with ocean fish. Keep in mind that most salmon sold in the U.S. is farm raised. In order to have the needed Omega-3 fatty acids, fish need to eat algae, so farm-raised fish do not have fatty acid value.

Another good source is whole flax seeds. According to Dr. Bauman, flax seeds look like sesame seeds, and have a good taste. They offer high fiber and lignans, vitamin E and zinc, from a nutritional perspective. He recommends grinding fresh flax seeds in a coffee grinder, and sprinkling the powder on hot cereal, or over a salad, or in a soup, eating 1 - 2 tablespoons, a few times a day. (Keep in mind to add the ground flax seeds to foods after cooking.)

### **Consider Food's Effects on Antibody Levels**

In the case of autoimmune diseases like Hashimoto's Thyroiditis, Dr. Bauman believes that foods themselves may be creating problems. According to Dr. Bauman, "food sensitivities, such as to dairy, gluten/wheat, and hormones added to meats, for example, can disrupt the overall endocrine system."

When you have elevated antibodies, such as found in Hashimoto's disease or Graves' disease, your body has found something antigenic -- something it perceives to be a "foreign body" - and the body feels it needs to be vigilant. According to Dr. Bauman, the things that can cause a high antigen load, and thus elevate antibody levels, include:

- Food antigens
- Environmental antigens
- Body tissue that has been impacted with a foreign substance

Some patients and practitioners report that thyroid symptoms increase when the diet is higher in processed sugars, or when they are exposed to seasonal allergens, or when they've had a virus. Dr. Bauman explains that exposure to antigens or allergens are the reason behind this activity. He believes that a malfunctioning thyroid may already be exhibiting evidence that it's infected with a virus, yeast, or toxic metals, which as already weakened the "terrain" - the gland itself. Then, when the immune system sees a foreign material, the thyroid being weak is likely to be susceptible to that "invader," and the immune system, in an effort to clear out the foreign substance, essentially says, "let's clear out the thyroid."

So, for example, if you have bacteria or yeast that has compromised your thyroid, when you eat refined sugars, you feed the bacteria or yeast, which can aggravate the inflammatory and antigenic response, and antibody levels will go up.

In the case of autoimmunity, Dr. Bauman feels that detoxification can be particularly helpful, including antioxidants and some form of chelation.

### **Consider Thyroid and Lymphatic Massage**

Dr. Bauman indicated that the thyroid has problems with deposition, so very gentle, massage of the thyroid and lymphatic system may be of benefit to help eliminate what he refers to as the "bottleneck around the gland. " You can find out more about Lymph Drainage Massage in an [article](#) by Sean Riehl, author of Lymphatic Drainage, and founder of Real Bodywork, or in Mario-Paul Cassar's [Massage for Detoxification](#).

### **Institute Other Dietary Changes**

In addition to the recommendations noted here, for thyroid patients, Dr. Bauman favors a whole foods approach, using organic foods.

He recommends a diet that is sufficient in protein, and even potentially vegetable based, but not necessarily vegetarian, as seeds and seafoods are important. Seeds recommended include pumpkin, chia, and flax seeds.

For some patients, nutritional brewers yeast may also be a good dietary addition.

Seaweeds and sea vegetables are also a good addition. Dr. Bauman recommends bladderwrack as a soothing and normalizing supplement. But patients need to be careful, and if they see signs that a product- particularly those that contain iodine -- is stimulating (tenderness in the neck, enlargement of a goiter, swelling in the thyroid area), keep in mind that you might need to cut back, and not take a product daily, but rather, even weekly.

*Sticking Out Our Necks* and this website are © Copyright Mary Shomon, 1997-2003. All rights reserved. Mary Shomon, Editor/Webmaster  
All information is intended for your general knowledge only and is not a substitute for medical advice or treatment for specific medical conditions. You should seek prompt medical care for any specific health issues and consult your physician or health practitioner before starting a new treatment program. Please see our full disclaimer.