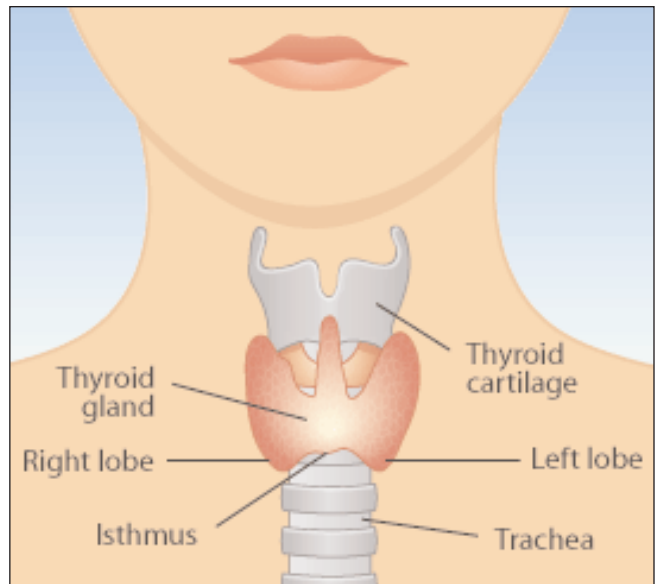


# Hashimoto's Autoimmune Thyroiditis: Eating for Health™ Applications for Recovery

by Jodi Friedlander, M.S. & Edward Bauman, M.Ed., Ph.D.



As the world becomes more polluted, the incidence of "auto-immune" disease will steadily increase. Our environment is killing us and no medicine can protect us.

In most cases, little attention is paid to the cause or contributing factors that drive auto-immune conditions. Autoimmunity is most easily understood as "hyper-immune". With conditions as diverse as multiple sclerosis, lupus, rheumatoid arthritis, scleroderma and even some forms of diabetes, the confluence of stress, toxicity, trauma and mal-nutrition, with an element of genetic susceptibility, promotes aggressive immune function that destroys sensitive body tissue.

Merely suppressing the immune system is not sufficient to reverse the onslaught of inflammation, degeneration and loss of both tissue structure and function. The *Eating for Health™* (Bauman, 2007) approach, with an emphasis on alternating a cleansing, detoxifying diet with a reparative, building diet is the natural way to tease out the pathological elements that are driving excessive immune response. A variety of clinical meta-

bolic, functional laboratory tests are advised to identify offending antigenic (immune arousing) substances for which a specific integrative diet, supplement and lifestyle program can be devised. Initially, natural and medical approaches offer the highest level of care. In time, as a person heals, he or she can look forward to being less rigid and rigorous in their self and medical care.

This article will focus on what happens when the thyroid or its hormones get targeted for a persistent immune attack. Along with obesity, the incidence of hypothyroidism appears to be escalating wildly, and since low thyroid function generally causes weight gain, the two are often intimately connected. While the rise in obesity is obvious to anyone with visual acuity, low thyroid function is not so generally apparent, nor is it diagnosed easily by most doctors in its sub-clinical stage. For this reason it is important for consumers, nutrition professionals and healthcare practitioners to learn to recognize its symptoms and manifestations. Hypothyroid, left untreated, can contribute to unwanted



# Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery

weight gain and create a host of debilitating symptoms, that if untreated, lead to serious, health problems.

## What It Is

The thyroid is a small butterfly-shaped gland that sits at the base of the neck, under the Adam's apple. It is responsible for synthesizing several hormones that affect the energy production of almost every cell, tissue and organ in the body. It controls metabolism, regulates body temperature, and affects body weight, muscle strength, energy levels and fertility.

The primary hormones produced – T4 and T3 – are formed from the amino acid tyrosine, combined with iodine. Hormone production is dependent on the ability of the hypothalamus to sense the body's need for more thyroid hormone and to signal the pituitary gland via *thyroid releasing hormone* (TRH). *Thyroid stimulating hormone* (TSH), released from the pituitary gland, influences and controls production of these hormones. TSH levels rise and fall in response to amounts of circulating hormones in the bloodstream. Hypothyroidism can occur due to dysfunction in any of these glands, causing underproduction of thyroid hormone. It can also result from other problems, including inefficient conversion in cells of T4 to T3 (the more biologically active of the two hormones) and insensitivity of hormone receptors in cells. Low thyroid activity contributes to a large

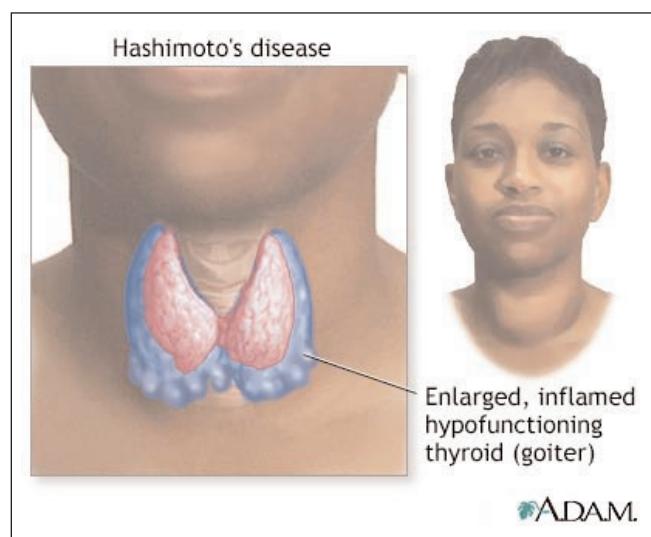
number of physiological effects throughout the body due to reduced enzyme function from lowered body temperature (Brady, 2000).

*Hashimoto's Thyroiditis* (HAIT or HT), also known as autoimmune thyroiditis, is a *T-cell mediated* (Th-1) autoimmune inflammatory condition (Phenekos et al, 2004) in which the body produces antigens that attack its own thyroid gland. The symptoms are generally the same as for other forms of hypothyroidism, but if left untreated the gland may ultimately be destroyed. It is marked by the presence of autoantibodies and is often associated with other autoimmune conditions.

A significant number of those diagnosed with Hashimoto's are completely asymptomatic, while a small proportion of both men and women are subclinical, meaning that though circulating levels of thyroid hormones are normal, *thyroid stimulating hormone* (TSH) is rising in response to the attack on the gland (Amino et. al., 2003). The disease can eventually cause a depletion of circulating thyroid hormones, creating symptoms of low thyroid function, though not everyone with the autoantibodies goes on to develop hypothyroidism.

## Who Gets It

*Hashimoto's Thyroiditis* is the most commonly diagnosed form of hypothyroidism in the United States, with overt symptoms affecting approximately two percent of the population (Chistiakov et. al., 2005), but it is generally recognized that it occurs far more frequently than is diagnosed. According to thyroid expert, Richard Shames, M.D., non-autoimmune hypothyroidism does exist, but its occurrence in developed countries is rare compared to that of the autoimmune variety (Shames, 2003; p.105). As with most autoimmune conditions, while Hashimoto's occurs in all age groups, including children, and in both genders, it is most prevalent in women, generally developing between the ages of 30 and 50. By age 60, it is estimated that 20 percent of women are hypothyroid (Blanchard, 2004). Depending on which studies are read, women are anywhere from 10 to 50 times more likely to develop HT than are men.



# Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery

The reason for this appears to be that the same system that regulates immunity also regulates reproductive cycles in women (Plapp, 2002).

## Symptoms

*Hashimoto's Thyroiditis* can be asymptomatic, but when symptoms appear, they generally begin as a gradual enlargement of the thyroid gland (goiter) and/or the gradual development of hypothyroidism, the symptoms of which include:

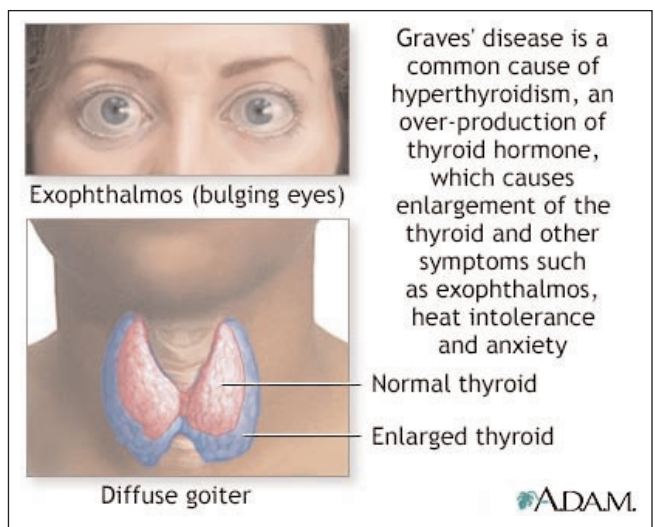
- ▶ Anemia (especially pernicious)
- ▶ Brain fog (forgetfulness, sluggish thinking, loss of energy for life)
- ▶ Chest pains
- ▶ Cold intolerance; cold hands and feet
- ▶ Constipation
- ▶ Depression
- ▶ Dry, coarse skin
- ▶ Early graying of hair
- ▶ Exhaustion after exercise
- ▶ Frequent colds and flu's and difficulty recovering from infection
- ▶ Headaches, including migraines
- ▶ High cholesterol, especially LDL
- ▶ Infertility; miscarriage
- ▶ Low basal temperature
- ▶ Low libido
- ▶ Muscle cramps/tenderness
- ▶ No patchy hair loss
- ▶ Poor concentration and memory (brain fog)
- ▶ Restless leg syndrome
- ▶ Seasonal (cold weather) exacerbation of symptoms
- ▶ Severe PMS
- ▶ Sleep disturbances
- ▶ Slowed speech and ankle reflexes
- ▶ Tired, aching muscles
- ▶ Weak, brittle nails
- ▶ Weight gain

There are also other, less frequent symptoms, including increased blood pressure and excess earwax. A more complete list can be found in *The Diet Cure*, by Julia Ross, M.A.

There can also be profound health implications from lowered thyroid function, including short stature, reduced attention span, and lowered IQ's in children (Blanchard, 2004; p. 20). And, though studies are conflicting, hypothyroidism appears to confer an increased risk for cardiovascular disease (Blanchard, 2004; pp. 74-75).

## Etiology (Is It In the Air?)

No one has yet pinpointed the exact causes of Hashimoto's, but research has shed some light on contributing and possibly causative factors. The available research points to a combination of genetics and environmental triggers as co-factors. Both Hashimoto's and *Grave's Disease – autoimmune hyperthyroidism* – cluster in families with a history of autoimmune disorders, and several different genes have been identified that confer susceptibility to both (Chistiakov et. al., 2005). But genetically susceptible people also require one or more environmental triggers to initiate the disease process. And as Edward Bauman, PhD. (in Shomon, N.D.) explains, it is most likely a variety of factors, not just one, that contributes to the onset of hypothyroidism. Some of the possible triggers are:



## Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery

- ▶ Viral, bacterial or Candida infections as a trigger or as a direct cause.
- ▶ Ongoing stress, sufficient to cause adrenal insufficiency that hampers conversion of T4 to T3 and weakens the body's immune defenses.
- ▶ Pregnancy, which up regulates the immune system
- ▶ Trauma, such as surgery or an accident
- ▶ Nutrient deficiencies, in particular, iodine and/or selenium.
- ▶ Food borne bacteria, most notably *Yersinia enterocolitica*, though this is more common outside the U.S. than inside (Shomon, 2001).
- ▶ Toxins

Toxins are of particular concern, especially those created from petrochemicals. Many plastics (all those bottles of water we drink), pesticides, fertilizers, dioxin, body care products, not to mention what's in the air and tap water we ingest, all contain substances that mimic our own body's estrogen. These xenoestrogens are powerful endocrine disruptors, affecting the balance of all our hormones, and are thought to contribute to the rise in autoimmune conditions in general (Plapp, 2002) and to Hashimoto's Thyroiditis specifically (Shames private conversation; May, 2007). Mercury (from fish and dental amalgams) and fluoride (in toothpastes and water) are also endocrine disruptors. Mercury amalgams, especially, since they sit so close to the throat, can pose a serious threat to the thyroid gland, making mercury detoxification imperative (Bauman, in Shomon; N.D.).

### Medical, Clinical and Home Testing

Other hormone imbalances, especially of the adrenals and the sex hormones, can produce symptoms identical to those of hypothyroid, making screening very important. But standard medical testing, which often checks TSH only, may not reveal asymptomatic or subclinical Hashimoto's. In addition, the reference values used by most physicians for TSH are too broad, though some doctors now recognize that a TSH level >2 often leads to the

development of hypothyroidism. A TSH >3 is now often considered subclinical and deserving of treatment, especially with a finding of autoantibodies, since treatment can stop the progression of the autoimmune attack (Aksoy et. al., 2005). Finding a good doctor or other healthcare practitioner is essential if one suspects hypothyroidism.

- ▶ The first step may be to answer a questionnaire to determine if symptoms could be due to low thyroid function. Several of these tests are available in the books and websites listed at the end of this article.
- ▶ Basal Temperature Test: Take a thermometer to bed; shake it down prior to going to sleep. Immediately upon awakening, place it under an armpit. Leave it there for 10 minutes and move as little as possible during that time. A reading below the normal range of 97.8-98.2 indicates lowered metabolic function, which may indicate lowered thyroid function. Men and menopausal women can perform this test any day of the month (Barnes, 1976, pp. 47-48). Menstruating women should perform it during their periods. Do this test for 5 days to obtain an average reading.
- ▶ Serum or saliva testing for TSH, Free T3, Free T4, and for *thyroid peroxidase antibodies* (TPOAb) and *thyroglobulin antibodies* (TgAb). Testing for these antibodies is necessary to uncover the autoimmune component, which is indicative of Hashimoto's even in the absence of symptoms. Saliva testing, according to Dr. Shames, is more accurate than serum testing (private conversation, May, 2007).
- ▶ Symptoms of hypothyroid can include hypercholesterolemia, hypertension and chest pains. In the elderly, these can be present even though thyroid hormone and TSH levels are normal. In fact, normal TSH levels are not at all unusual in older people with hypothyroidism (Urban, 1992). Seeing a cardiologist to rule out cardiovascular disease may be a wise idea.



# Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery

If Hashimoto's is confirmed, the following tests will prove useful:

- ▶ Thyroiditis is an inflammation. Testing for food allergies can help determine if there are reactive foods that need to be eliminated to help quench the inflammation (Bauman, in Shomon; N.D.; Ross, 1999; p. 173).
- ▶ Anemia is common among those with HT. Check for both iron- and B12-deficiency anemia.
- ▶ Hypothyroid is almost always associated with some degree of adrenal fatigue, and since adrenal hormones are necessary for the conversion of T4 to T3 (Blanchard, 2004; p. 48) and for the uptake of hormone into peripheral tissues, it is advised to do an *Adrenal Stress Index* – a 24 hour saliva collection – to determine the extent of adrenal involvement.
- ▶ Checking estrogen (for women) is also important, as excess estrogen can reduce the effect of thyroid hormone and lock it out from receptor sites on tissue cells (Blanchard, 2004; p. 16).
- ▶ Richard Shames, M.D. considers selenium deficiency to be one of the critical factors in the onset of Hashimoto's (Shames private conversation, May, 2007). Selenium is necessary for the conversion of T4 to T3. A hair mineral analysis is useful to determine if this deficiency exists. Hair mineral analysis can also help determine the copper: zinc ratio, which is also critical to good thyroid function (Shames private conversation, May, 2007).

## Eating For Health™, Eating to Heal

Once a diagnosis of Hashimoto's is obtained, the dietary goals are to cool the inflammation, work to balance all hormones, and help the thyroid gland produce hormones – and the body to convert them – properly. Since thyroid hormone medication is indicated when antibodies are detected, the dietary recommendations are meant to be in addition to medical therapy, not in place of it.

Adopting the *Eating For Health™* diet plan is clearly

the best option, because a diet rich in high quality proteins and fats, with lots of fresh, seasonal and organic vegetables and fruits and nuts, seeds, whole grains and nutrient-dense booster foods is the shortest, straightest path to nutritional thyroid support. An emphasis on building, through an increased amount of protein, is recommended, since lowered thyroid function reduces the body's ability to benefit fully from the protein foods eaten (Ross, 1999; p. 170). However, Richard and Karilee Shames (2006) differentiate between people whose metabolisms are driven primarily by their adrenals, thyroids, or sex glands and have slight dietary modifications for each, despite a Hashimoto's diagnosis. (*See the Resources section for their book*). Also consider eating three meals and two to three snacks per day to keep energy levels more even throughout the day.

## Foods to Increase

**Proteins:** Julia Ross, M.A. advises 20 grams of lean animal protein (3-4 oz.) at each meal (1999; p. 170). Also shoot for 1-2 oz. at snack time. Cold-water fish is a good choice, as it also contains Omega-3 fatty acids. Tempeh is a good source of vegetable protein, and whey protein, though more processed, can be very useful. It contains immunoglobulins and L-Glutamine that can help heal a distressed digestive tract.



## Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery



**Antioxidant-rich foods:** "Push the antioxidants", says Richard Shames, M.D. (Shames private conversation, May, 2007). Antioxidant-rich foods are necessary to combat free radical damage caused by the inflammatory process. Emphasis on vitamin-A containing foods is especially helpful, since vitamin A is often deficient in people with any type of autoimmune condition (Plapp, 2002).

- **Vitamin A-rich foods\*:** Raw carrots; cooked calf's liver; lightly cooked spinach, kale, collard greens and Swiss chard; winter squashes; red bell peppers; apricots; cantaloupe; sweet potato.

Other nutrients with antioxidant qualities often deficient in Hashimoto's Thyroiditis include vitamins C and E, iodine, zinc and selenium.

**Vitamin C-rich foods:** Red bell peppers; parsley; broccoli; citrus fruits; romaine

**Vitamin E-rich foods:** Lightly steamed mustard greens and Swiss chard; sunflower seeds; almonds

**Iodine-rich foods:** Seaweeds, especially dulse and kelp (be sure it's very high quality); seafood (free of mercury and wild, not farmed)

**Zinc-rich foods:** Oysters; crab; beef (organic and/or grass-fed); sesame and pumpkin seeds

**Selenium-rich foods:** Crimini mushrooms; cod; shrimp; halibut; snapper; oats; sunflower seeds; brown rice.

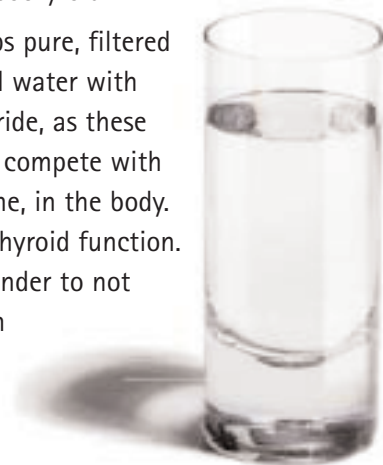
\* [www.whfoods.org](http://www.whfoods.org) has a more complete listing of foods and their nutrient content.

**Healthy Fats:** 4-6 Tbsp. per day of the good fats found in avocados, nuts and seeds (especially pumpkin, chia and flax), organic butter, olive oil and coconut and its oil. Coconut is very thyroid friendly. The lauric acid it contains is soothing to the endocrine system (Bauman, in Shomon, N.D.) and its medium-chain fatty acids digest quickly and provide a superior energy source for the body. It can also be helpful for weight loss (Calbom et. al., 2003). The milk from the coconut can be used in place of other milks.

**Vegetables:** At least 4 cups per day (Ross, 1999; p. 171). Choose a wide variety of colorful veggies and eat them lightly cooked or raw. NOTE: Avoid eating the *brassica* family raw, as these inhibit thyroid function. Brassicas include broccoli, cauliflower, turnips, etc. Don't overdo these, in general, though they should be fine in moderation (Shames private conversation, May, 2007).

**Carbohydrates:** Go easy on the fruit, grains and starchy vegetables. Two 1/2 cup servings of fruit per day, plus 1/2 to 1 cup, one or two times per day, whole grains or starchy vegetables (Ross, 1999; p. 171). NOTE: Soaking grains (except for brown rice) for seven hours in water with 1 Tbsp. of lemon juice, will make them much more digestible, very important for those with impaired digestion, which is common with hypothyroid.

**Water:** At least 8 cups pure, filtered water daily. Avoid water with chlorine and fluoride, as these are halogens and compete with the halogen, iodine, in the body. This can disrupt thyroid function. And another reminder to not purchase water in plastic bottles.



## Vital Scoop™ Food Composition Powder

To support people with a wide variety of health issues, a dietary food supplement powder is a great ally. The *Vital Scoop™*, developed by Ed Bauman, Ph.D. ([www.BaumanNutrition.com](http://www.BaumanNutrition.com)) is a unique, whole food powder which contains premium whey powder, a blend of algae, cereal grasses and sea vegetables, a blend of fibers, including flax meal apple pectin, a blend of fruit extracts, including blueberries, raspberries, apple prunes acai and Goji berries, and therapeutic elements such as aloe vera, ionic minerals, acidophilus and grape seed extract. One scoop contains 9 grams of easily digestible protein, rich in sulfur amino acids that support detoxification, along with healing chlorophyll and antioxidants to cool an overheated immune system and cleanse impurities from the blood, thyroid and its hormones and to improve thyroid hormone sensitivity. The vital scoop can be used as a meal replacement in a shake or just added to warm or cool liquids. Making it with coconut water is a very healthful and refreshing application.

Dietary "tricks" can help hypothyroidism, too. The first is to reduce caloric intake by about 30 percent. Essentially, stop eating before getting full, while still taking in adequate nutrients. Calorie restriction, as it is called, has been shown to improve both immune and thyroid function (Moore, 2006). The second technique, from Dr. Ken Blanchard, is to "eat breakfast like a king, lunch like a prince and dinner like a pauper" (2004; p. 200). This prevents the body from being overloaded with food at night, when it is converting fat to muscle with growth hormone, and to fuel it well during the day to accommodate energy needs.

## Things to Avoid

- ▶ **Aspartame:** Aside from its other known toxic effects, Aspartame appears to be particularly problematic for the thyroid gland (Bauman, in Shomon, N.D.).
- ▶ **Iodized Salt:** Even though the thyroid gland depends on iodine to produce hormones, this is

not the way to get it. It is not possible to eat enough salt, in the first place, to get the daily recommended dosage of iodine (150mcg.) Nor is it advisable to consume such a highly processed product, the grocery store versions of which often contain aluminum and dextrose (Bauman, in Shomon, N.D.). Sea salt, unprocessed and containing trace minerals, is a far better choice.



- ▶ **Unsaturated Oils (canola oil, too):** There is speculation that these contribute to hypothyroidism. Whether it is because they contain so much inflammation-promoting Omega-6 fatty acids, or because they are generally rancid even before they are bottled (or go rancid in their clear glass bottles) is not known.
- ▶ **Soy:** Also disruptive to the endocrine system, and considered a toxin by some, is soy, though it is the isolated and concentrated isoflavones that pose the greatest risk, according to Ken Blanchard, M.D. (2004; p. 190). He points out that infants fed soy formulas are more likely to develop autoimmune conditions later in life than those who are not. Depending on soy as a primary source of protein is not recommended. Even small amounts have been shown to have powerful hormone disrupting powers and can lower concentrations of T3 (Ross, 1999; pp. 204-205). The exception to this is fermented soy foods, such as tempeh, natto and miso.

## Supplementation

Because Hashimoto's Thyroiditis can result in reduced digestive capabilities, it is a good idea to support digestion with enzymes, HCl and probiotics when necessary and to supplement with extra quantities of the nutrients most often found lacking with this condition.





- ▶ **High potency, high bioavailability multi-vitamin and mineral:** Take as directed, preferably in divided doses.
- ▶ **Additional antioxidant:** Take as directed daily (Shames et. al., 2006; p. 97).
- ▶ **Extra essential fatty acids:** from fish or flax. 1000-2000mg. per day, two divided doses (Shames et. al., 2006; p. 97; Ross, 1999; p. 245).
- ▶ **Extra B vitamins:** Either in supplement form or, preferably, use nutritional yeast.
- ▶ **Calcium:** 250-300mg (1-2 at bedtime) (Ross, 1999; p. 245). Calcium and iron need to be taken two hours before or after thyroid medications so as not to interfere with its absorption.
- ▶ **Magnesium:** 200mg 2 times daily (Ross, 1999; p. 245; Shames et. al., 2006; p. 97).
- ▶ **Selenium:** 200 mcg. per day has been shown to reduce thyroid autoantibodies (Gartner et. al., 2002; Turker et. al., 2006; Duntas et. al., 2003). NOTE: Do not exceed 40mcg. daily if pregnant (Balch, 2000; p. 452).
- ▶ **Iodine:** If the multiple doesn't contain 150-200 mcg. iodine, kelp supplementation — 2-3 grams daily — should provide adequate amounts (Balch, 2000; p. 451). Dr. Mercola (in Shomon, N.D.) recommends 5 grams daily. Supplementing directly with iodine is very controversial, with physicians obtaining erratic results, and

should be either avoided or done with extreme caution until more is known about it. Daily low-dose iodine supplementation (200 mcg. a day) has been shown to reduce antibody levels in people with Hashimoto's (Rink et. al., 1999).

- ▶ **Vitamin D3:** often low in those with autoimmune conditions, is necessary for optimal immune function (Hayes et. al., 2003). It is also required for thyroid hormone production (Shames, in Shomon, 2007). 1000-2000 mg. daily to bring up levels. Maintenance doses will vary.
- ▶ **L-Tyrosine:** one of the thyroid's hormone building blocks. Many sources recommend 500 mg. twice daily; levels of this amino acid are rarely low enough to warrant supplementation (Shames et. al., 2006; p. 108).
- ▶ **Chromium:** 200 mcg. daily, if it's not already in the multiple (Ross, 1999; p. 245).
- ▶ **Iron:** if deficient. Calcium and iron need to be taken two hours before or after thyroid medications so as not to interfere with its absorption.
- ▶ **Zinc:** if testing shows a deficiency. 50 mg. daily (Balch, 2000; p. 452).
- ▶ **Thyroid glandulars:** have been shown to be very effective 50-100mg. twice daily. These are desiccated thyroid glands of either pigs or cows (use those from non-BSE cow-raising countries), but most of the hormone has been removed. But not all. Dr. Shames likens it to decaffeinated coffee: there's still a little bit in there (Shames private conversation, May, 2007). Because of this, they also contain T1 and T2, other thyroid hormones that may exert a physiological effect.

Additional supplements, recommended by Dr. Shames, are extra free-form amino acids daily (two 500mg. capsules); taurine (two 500mg. daily); and proteolytic enzymes for inflammation (2006; p. 97).



# Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery

Vegans may have to add the nutrients commonly missing in adequate amounts from an animal-free diet: extra B12, D, some L-Carnitine, zinc and selenium (Ross, 1999; p. 244).

## Herbs

Many herbs are available (often together, in one supplement) to support overall endocrine function and the thyroid gland particularly. These include:

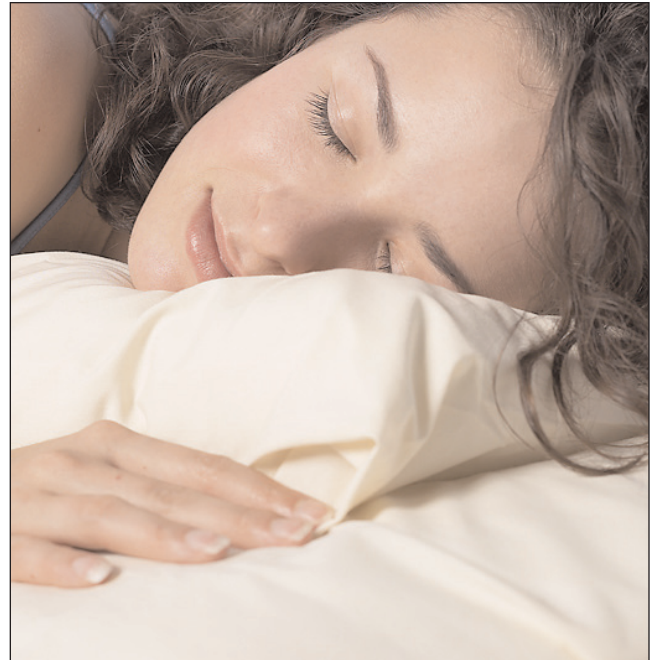
- ▶ Ashwagandha (*Withania somnifera*)
- ▶ Asian Ginseng (*Panax ginseng*)
- ▶ Bladderwrack (*Fucus vesiculosus*)
- ▶ Coleus forskholii root
- ▶ Guggul (*Commiphora mukul*)
- ▶ Holy Basil Leaf (*Ocimum sanctum*)
- ▶ Maca root (not raw, as it's a brassica). No research exists to date about its effect on the thyroid, but anecdotal evidence both from thyroid.about.com (Shomon, 2007), and from some of the producers of maca products, suggest it has a beneficial effect on the thyroid. As an adaptogenic, endocrine balancing herb (Walker, 1998), this would not be surprising.
- ▶ Rosemary (*Rosmarinus officinalis*)
- ▶ And the Shames' recommend a Tibetan herbal product called, Padma Basic (2006; p. 122).

## Homeopathy

- ▶ Thyroidinum 6 times or 6c, three pellets under the tongue 3 times daily for one week, may be helpful to initiate thyroid balance (Shames et al., 2006; pp. 122-123).
- ▶ Calcarea carbonica may increase thyroid function (Balch, 2000; p. 452).

## Other Considerations

- ▶ Acupuncture may be very effective to support the thyroid (Ehrlich, 2006)
- ▶ Lymph massage (Bauman, in Shomon; N.D.) or exercise that includes gentle jumping



- ▶ Contrast hydrotherapy (hot and cold applications) to the neck and throat may stimulate thyroid function (Ehrlich, 2006)
- ▶ Stress reduction
- ▶ Overall detoxification
- ▶ Good sleep
- ▶ Exercise, to tolerance

## Conclusion

Hashimoto's Thyroiditis is a treatable condition. It takes all of the following to have a successful outcome: individualized clinical assessment, a treatment plan that integrates detoxification, thyroid glandular support, improved conversion of T-4 to T-3 and improved receptor site sensitivity. A person who receives excellent care and follows a hypoallergenic diet with appropriate supplemental nutrients will improve gradually. There is no one size fits all treatment plan. It is a long-term recovery program that is exciting to undertake with the support of health professionals and family members. Clean up the diet, clean up the blood, clean up the environment and the immune system will calm down. Peace will be restored. Sage advice to all (Bauman, 2007).



---

## RESOURCES AND RECOMMENDED READING

### Books:

*Adrenal Fatigue* by James L. Wilson, N.D., D.C., Ph.D.

*Nourishing Traditions* by Sally Fallon and Mary Enig

*The Diet Cure* by Julia Ross, M.A.

*The Schwarzbein Principle: The Program* by Diana Schwarzbein, M.D.

*Thyroid Power and Feeling Fat, Fuzzy, or Frazzled?* by Richard Shames, M.D. and Karilee Shames, Ph.D., R.N.

*What Your Doctor May Not Tell You About Hypothyroidism* by Ken Blanchard, M.D.

### Websites:

[www.thyroid.about.com](http://www.thyroid.about.com)

[www.thyroid-info.com](http://www.thyroid-info.com)

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

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

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

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

[www.whfoods.org](http://www.whfoods.org)

---

## REFERENCES

Aksoy, D.Y.; Kerimoglu, U.; Okur, H.; Canpinar, H.; Karaa o lu, E.; Yetgin, S.; Kansu, E. and Gedik, O. (2005). Effects of Prophylactic Thyroid Hormone Replacement in Euthyroid Hashimoto's Thyroiditis. *Endocrine Journal*. 52 (3), 337-343, 2005.

Amino, Nobuyuki and De Groot, Leslie J., M.D. (Revised by). (2003, May 1). *Hashimoto's Thyroiditis*. Thyroid Disease Manager website. Chapter 8. Retrieved from: <http://www.thyroidmanager.org/Chapter8/8-contents.htm>

Balch, Phyllis A., CNC and Balch, James F., M.D. (2000). *Prescription for Nutritional Healing*. pp. 450-453. New York: Avery.

Barnes, Broda O. and Galton, Lawrence. (1976). *Hypothyroidism: The Unsuspected Illness*. New York: Harper and Row.

Blanchard, Ken, M.D., PhD. with Brill, Marietta Abrams. (2004). *What Your Doctor May Not Tell You About Hypothyroidism*. New York: Warner Wellness.

Brady, David, DC,CCN,DACBN. (2000, March 20). *Functional Thyroid Disorders, Part I*. Dynamic Chiropractic, Volume 18, Issue 07. Retrieved from: <http://www.chiroweb.com/archives/18/07/03.html>

Calbom, Cherie, M.S. and Shilhavy, Brian. (2003, November 8). How to Help Your Thyroid with Virgin Coconut Oil. Mercola.com. Retrieved from: [http://www.mercola.com/2003/nov/8/thyroid\\_health.htm](http://www.mercola.com/2003/nov/8/thyroid_health.htm)

Chistiakov, Dimitry A. (2005, March 11). Immunogenetics of Hashimoto's Thyroiditis. *Journal of Autoimmune Diseases 2005*, 2:1 (online version). Retrieved from: <http://www.jautoimdis.com/content/2/1/1>

Daniels, Gilbert H., M.D. (2003). *Thyroiditis*. American Thyroid Association. Annual Meeting. Retrieved from: [www.thyroid.org/ann\\_mtg/2003\\_75th/documents/002\\_Daniels.pdf](http://www.thyroid.org/ann_mtg/2003_75th/documents/002_Daniels.pdf)

Duntas LH, Mantzou E, Koutras DA. (2003, April). Effects of a Six Month Treatment With Selenomethionine in Patients With Autoimmune Thyroiditis. *E ur J Endocrinol*. 148(4):389-93.in PubMed. Retrieved from: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=12656658&query\\_hl=3&itool=pubmed\\_docsum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=12656658&query_hl=3&itool=pubmed_docsum)

Ehrlich, Steven D., N.M.D. (Reviewer). (2006, June 15). Hypothyroidism. University of Maryland Medical Center website. Retrieved from: <http://www.umm.edu/altmed/articles/hypothyroidism-000093.htm>

Gartner R, Gasnier BC, Dietrich JW, Krebs B, Angstwurm MW. (2002 Apr). Selenium Supplementation in Patients with Autoimmune Thyroiditis Decreases Thyroid Peroxidase Antibodies Concentrations. *J Clin Endocrinol Metab*; 87(4):1687-91. in PubMed. Retrieved from: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=11932302&query\\_hl=3&itool=pubmed\\_docsum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=11932302&query_hl=3&itool=pubmed_docsum)

Hayes, C.E.; Nashold, F.E.; Spach, K.M.; and Pedersen, L.B. (2003). *The Immunological Functions of the Vitamin D Endocrine System*. Cellular and Molecular Biology. 49 (2), Retrieved from: <http://www.direct-ms.org/pdf/VitDImmunology/Hayes.pdf>

Moore, Elaine. (2006, Dec. 31). *Calorie Restriction*. Suite 101.com Retrieved from: [http://autoimmunedisease.suite101.com/article.cfm/calorie\\_restriction](http://autoimmunedisease.suite101.com/article.cfm/calorie_restriction)

Phenekos C, Vryonidou A, Gritzapis AD, Baxevanis CN, Goula M, Papamichail M. (2004). *Th1 and Th2 Serum Cytokine Profiles Characterize Patients with Hashimoto's Thyroiditis (Th1) and Graves' Disease (Th2)*. Abstract. Neuro-immunomodulation online version. 2004;11(4):209-13. Retrieved from: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?itool=abstractplus&db=pubmed&cmd=Retrieve&dopt=abstractplus&list\\_uids=15249726](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?itool=abstractplus&db=pubmed&cmd=Retrieve&dopt=abstractplus&list_uids=15249726)



# Hashimoto's Autoimmune Thyroiditis: Eating For Health™ Applications for Recovery

- Plapp, Frederick, W., PhD. (2002, December 31). *Environmental Chemicals and Environmental Illness: A Major Role for Vitamin A*. Weston A. Price Foundation online. Retrieved from: <http://westonaprice.org/envtoxins/perilouspathways.html>
- Rink, T; Schroth, HJ; Holle, LH and Garth, H. (1999). Effect of Iodine and Thyroid Hormones in the Induction and Therapy of Hashimoto's Thyroiditis. *Nuklearmedizin*. 1999.; 38(5):144-9. in PubMed online. Retrieved from: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=10488481&query\\_hl=3&itool=pubmed\\_docsum](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=10488481&query_hl=3&itool=pubmed_docsum)
- Ross, Julia, M.A. (1999) Chapters 4 and 12 in *The Diet Cure*.: New York. Penguin.
- Shames, Richard, M.D. and Shames, Karilee, Ph.D., R.N. (2003, revised 2007). *The Top Five Supplements for Thyroid Support*. Thyroid-info website. Retrieved from: [http://thyroid.about.com/gi/dynamic/offsite.htm?zi=1/XJ&tsdn=thyroid&cdn=health&tm=3&f=22&tsu=p247.2.140.ip\\_p726.2.152.ip\\_p284.8.150.ip\\_&tt=2&bt=1&bts=1&zu=http%3A/www.thyroid-info.com/articles/topsupplements.htm%23seleniumzinc](http://thyroid.about.com/gi/dynamic/offsite.htm?zi=1/XJ&tsdn=thyroid&cdn=health&tm=3&f=22&tsu=p247.2.140.ip_p726.2.152.ip_p284.8.150.ip_&tt=2&bt=1&bts=1&zu=http%3A/www.thyroid-info.com/articles/topsupplements.htm%23seleniumzinc)
- \_\_\_\_\_ (2005). *Feeling Fat, Fuzzy, or Frazzled?* New York: Plume.
- \_\_\_\_\_ (2007, May 30 and 31). Personal interviews by telephone with both Richard and Karilee.
- Shomon, Mary J. (No date). *The Metabolic Detective: A Look at Nutrition for Your Thyroid*. Interview with Dr. Edward Bauman. Thyroid-Info.com. Retrieved from: <http://www.thyroid-info.com/articles/ed-bauman.htm>
- \_\_\_\_\_ (2001, April). *Could Antibiotics Cure Your Hashimoto's Disease: Foodborne Bacteria May Be a Cause of Hashimoto's Disease*. Thyroid-Info.com. Retrieved from: <http://www.thyroid-info.com/articles/yersinia.htm>
- \_\_\_\_\_ (2007). *South American Herbs and Autoimmune Disease: The Herbs That May Help Hashimoto's, Grave's and More*. About.com: Thyroid Disease. Retrieved from: <http://thyroid.about.com/cs/alternativehelp/a/herb-sautoimmune.htm>
- Smyth, P.P. A.; Kavanagh, D.; Smith, D.F.; Brennan, C.G.; Fleming, F.; Hill, A.D.K.; McDermott, E.W.M.; O'Higgins, N.J.; Barrett, P.; Thompson, C.; and Moriarty, M.J. ((2003, March 24-26). *Serum TSH and Thyroid Autoantibodies in Thyroidal and Extrathyroidal Disease*. *Endocrine Abstracts* (2003) 5 P271. Retrieved from: <http://www.endocrineabstracts.org/ea/0005/ea0005p271.htm>
- Turker, O.; Kumanlioglu, K.; Karapolat, I. and Dogan, I. *Selenium Treatment in Autoimmune Thyroiditis: 9-Month Follow-up With Variable Doses*. (2006 Jul). *J Endocrinol*.; 190(1):151-6. in EntrezPubMed online. Retrieved from: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list\\_uids=16837619](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=16837619)
- Urban, R.J. (1992, December). *Neuroendocrinology of Aging in the Male and Female*. *Endocrinol Metab Clin North Am*.; 21(4):921-31. in PubMed. Retrieved from: [http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&list\\_uids=1486882&dopt=Abstract](http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&list_uids=1486882&dopt=Abstract)
- Walker, Morton, DPM. (1998, November). *Effects of Peruvian Maca on Hormonal Functions*. Townsend Letter for Doctors and Patients online version. Issue #184, November, 1998. Retrieved from: [http://www.ecoandino.com/english/articles/Dr\\_Morton\\_Walker.pdf](http://www.ecoandino.com/english/articles/Dr_Morton_Walker.pdf)

---

## BIOGRAPHIES

A student of Ed Bauman, M.Ed., Ph.D., Jodi Friedlander, M.S., earned her Master's degree in Holistic Nutrition from Clayton College of Natural Health. She lives in Tehachapi, California with her husband, Scott, and their dog and three cats. She maintains a private nutrition consulting practice, specializing in issues of weight gain, hormone imbalance, and stress disorders. She also writes a monthly nutrition newspaper column, lectures and teaches private nutrition classes. She keeps her life in balance with gardening, hiking, biking, running, rock climbing and Yoga. She is constantly asked, "Where in the heck is Tehachapi?" She can be contacted at [jfriedlander05@yahoo.com](mailto:jfriedlander05@yahoo.com)

Edward Bauman, M.Ed., Ph.D. is the director of Bauman College: Holistic Nutrition and Culinary Arts, with three classroom campuses in Northern California and an innovative distance learning program. Ed is committed to bringing the message of *Eating For Health™* to a wider audience to reverse the tendencies toward mindless over consumption of sickening foods. He can be reached at [edb@baumancollege.org](mailto:edb@baumancollege.org)

