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An Electronic Journal for NSP Distributors

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## Sea Veggies (Kelp, Dulse, Irish Moss, Etc.)

By Steven H. Horne

If you've ever walked along the beach and picked up some slimy seaweed that has washed up onto the shore you probably didn't think, "Oh, yummy!". However, various forms of seaweeds are a type of vegetable consumed by many people in many cultures, and they're a downright healthy vegetable, too.

Seaweeds are the most dependable food source for iodine, a very critical nutrient in the human body. Iodine, which is the subject of this month's Nature's Field and Tree of Light's theme for the month of January, is a rare element, and difficult to obtain in a normal diet. Native people knew of its importance, and it was often carried far inland as an item of trade. (In areas where seaweeds were unavailable, iodine was usually obtained by eating the thyroid gland of slain animals.)

Iodine is absolutely critical for thyroid function, and a large majority of thyroid disorders could be prevented or "cured" through increased iodine intake, i.e., consuming more sea veggies.

However, the need for iodine doesn't stop with the thyroid. Women's breasts are the second biggest user of iodine, and many breast problems, from fibroids to cancer, could be prevented by adequate iodine intake. All tissues of the body need iodine, but the parts of the body that suffer the most from iodine deficiency (besides the breast and thyroid) are the skin, eyes, prostate and uterus.

Sea vegetables contain far more than iodine, so we need to watch the tendency to oversimplify their potential uses. Linda Page gave an excellent presentation on the value of "Sea Vegetables for Natural Health and Beauty" at a special luncheon I attended at the 2003 Clayton College of Natural Health Symposium. She pointed out that these plants are very mineral rich, containing 10-20 times more trace minerals than most land plants. Besides iodine, these vegetables contain iron,

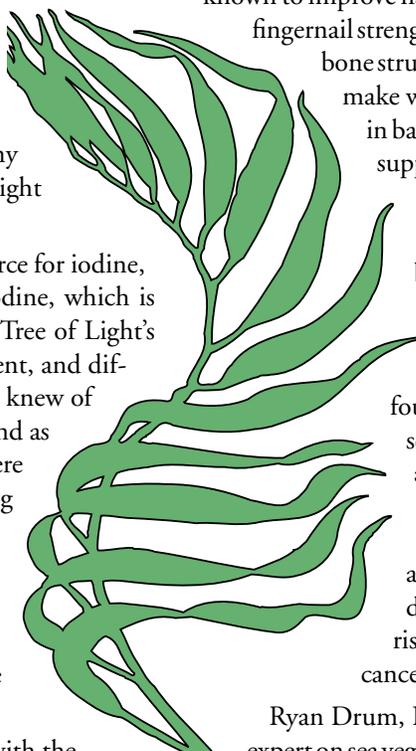
magnesium, potassium, boron, silica, selenium and chromium. They are also loaded with essential fatty acids, vitamins (including Vitamin D) and water-soluble fiber.

This high nutritional content makes sea vegetables excellent bone-building and tissue-repairing foods. They have been known to improve hair color and quality, skin tone and texture, fingernail strength, ease arthritic symptoms and strengthen bone structure. Linda Page told us that sea vegetables make wonderful topical beauty treatments. Used in baths or facial masks they make the skin more supple and elastic, helping to eliminate dry skin and wrinkles.

In the Orient, sea vegetables have been used for centuries in the treatment of cancer. Modern research is showing that there is real scientific validity to this. Anti-cancer compounds have been found in kelp, kombu and wakame. Many sea vegetables contain lignans, which are also found in flaxseeds, and are known to bond to estrogen-receptor sites and inhibit estrogen-dependent cancers. It appears that adding sea vegetables to the diet could be a powerful way to reduce the risk of breast cancer in women and prostate cancer in men.

Ryan Drum, Ph.D. is a professional herbalist who is an expert on sea vegetables. He says that fucoidan, a compound found in sea veggies like kelp and bladderwrack, is "...extremely anti-proliferative against cancer cells. It also interferes with every stage of viral attack: cell attachment, cell penetration, and intracellular virion production." This is why people

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who eat lots of sea veggies also seem to be more resistant to colds and flu. Dr. Drum also notes that certain polysaccharides or glycoproteins from red seaweeds (such as dulse) have been successfully used in treating genital herpes and Herpes Zoster. So, combining Liquid Dulse with VS-C and other antivirals could increase their effectiveness in dealing with chronic viral conditions.

Because they are high in water-soluble fiber, natural chlorine and potassium, sea vegetables have a protective effect on the heart and cardiovascular system. They can lower blood cholesterol levels and high blood pressure. They also have anti-inflammatory properties.

Sea vegetables have also been used in health spas in the British Isles for joint and muscle pain. The mucilaginous seaweeds not only absorb toxins and reduce inflammation, but their minerals are also absorbed through the skin to aid tissue repair.

Sea vegetables have a powerful detoxifying effect on the body. The mineral salts they contain help move lymphatic fluids, so they enhance lymphatic drainage and can be helpful in softening hardened lymph nodes. The mucilaginous fiber they contain absorbs toxins in the bowel and promotes bowel health.

Sodium alginate, the mucilage from kelp, is a very powerful detoxifier. The Environmental Protection Agency of the United States government has found that alginates can bind and eliminate radioactive materials such as Strontium 90 from the body. They can also absorb mercury, cadmium and other heavy metals.

Sodium alginate is available as a supplement through NSP and combined with Heavy Metal Detox is an excellent way to get mercury and other heavy metals out of the body. Consuming sea vegetables regularly will help protect the body from radioactive iodine (which is emitted from nuclear power plants and destroys thyroid tissue) and heavy metals.

Linda Page said that sea vegetables are excellent foods for pregnancy. Lack of iodine can cause stunted growth, mental deficiency, puffy facial features and a lack of muscular development in infants. She stated that sea vegetables can also help raise hemoglobin levels, and reduce constipation and stretch marks in pregnant mothers.

Returning to the thyroid, Ryan Drum says the *Fucus* species of seaweeds (which include bladderwrack) provides di-iodotyrosine (DIT) which is a precursor to forming the essential thyroid hormones Thyroxine (T4) and Tri-iodothyronine (T3). He concludes that in providing the immediate precursors for T4 and T3, *Fucus* seems particularly effective in treating both hypothyroidism and Grave's hyperthyroidism.

NSP's products contain four kinds of seaweeds—kelp, dulse, bladderwrack and Irish Moss. Kelp is sold as a single herb in capsules and dulse is available as a liquid extract. Kelp is great

to sprinkle on food and the Liquid Dulse is a great way to give iodine to kids.

All four seaweeds are found in various NSP formulas. Kelp is an ingredient in AdaptaMax, Bowel Detox, Energ-V, Heavy Metal Detox, Herbal Trace Minerals, MasterGland, MetaboMax EF, Potassium Combination, PS II, Target TS II, Thyroid Activator, Thyroid Support and TS II. Bladderwrack is found in CeluSmooth and Ultimate GreenZone. Dulse is found in HSN-W, Potassium Combination, and Super Supplemental. Irish moss is a component of All Cell Detox, Herbal CA, Target TS II, Thyroid Activator and TS II. It is also a key ingredient in the Natria Irish Moss lotion, a wonderful treatment for the skin.

In addition, bulk sea vegetables of various sorts can be purchased in health food stores or other outlets and added to NSP's Vegetable Seasoning Broth, soups, stews or other dishes. Many of them are quite tasty and have a pleasant salty flavor. I have been experimenting with using sea vegetables as foods and am learning to enjoy them in various ways. As suggested by Linda Page, bulk seaweeds can also be used in baths.

When one considers the many benefits of sea vegetables, it adds a whole new meaning to the phrase, "Eat your veggies."

### Selected References

"Sea Vegetables for Natural Health and Beauty" by Linda Page, ND, PhD, *Clayton College of Natural Health Symposium Proceedings 2003*.

"Botanicals for Thyroid Function and Dysfunction" by Ryan Drum, *Southwest Conference on Botanical Medicine Conference 2000*.

*The Comprehensive Guide to Nature's Sunshine Products* by Tree of Light Publishing

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# Iodine Robbers

by Steven H. Horne, RH (AHG)

And Kimberly Balas, ND

Iodine is a vital nutrient for good health. Not only is iodine critical for thyroid gland function, it is also essential for reproductive tissue health. The breasts, uterus and prostate require large amounts. Iodine is also needed for healthy skin and nerve function. In fact, every cell of the body needs some iodine.

Unfortunately, iodine is a rare element and only small amounts of iodine are present in most people's diets. This is compounded by the fact that a number of chemicals displace iodine or disrupt its function. These include all the elements belonging to a group called halogens on the periodic table of elements (Fluorine/Fluorides, Chlorine/Chlorides, Bromine/Bromides). Mercury also disrupts iodine in the body, as does aspirin and other salicylates, steroids, and unfermented soy products.

As people are increasingly exposed to these iodine robbers, what little dietary iodine they *are* getting is being displaced. Since iodine burns fat, it's also little wonder that obesity is increasing. It also explains the high prevalence of thyroid disorders. Furthermore, high rates of breast, prostate and uterine cancers may be due to reduced iodine levels in the body, because cultures where people who consume larger amounts of iodine in their diet don't have these problems.

Let's take a closer look at these iodine robbers.

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### Bromides

Bromides (substances containing bromine) are toxic substances with no nutritional or therapeutic value in human health. Animal studies show that bromine intake can adversely affect the accumulation of iodine in the thyroid and the skin, and ingestion of bromine has been shown to cause hypothyroidism in animals. When iodine deficiency is present, the toxicity of bromine is accelerated in the body.

Bromides are being increasingly used in our society. They are used as antibacterial agents for pools and hot tubs, as fumigants for agriculture, and for killing termites and other pests. Between 1981 and 1991 the amount of bromides sprayed in California for pest control increased nearly three-fold.

Bromides are also being added to foods. Bromides found in certain carbonated and sports beverages in the form of BVO (brominated vegetable oil) and are also used in bread flour as a dough conditioner. Iodine used to be added to flour, but was replaced with bromides. Since this took place, obesity has increased dramatically. Instead of getting iodine in bread (which would help burn fat), people are getting bromides, which in turn disrupt iodine, increasing fat deposition.

Bromides are also found in certain drugs, such as Atrovent inhaler, Atrovent nasal spray, Ipratropium nasal spray, Pro-Panthine and Pyridostigmine bromide. This increased use of bromides has caused the amount of bromine in human breast milk to increase 10-fold over the last decade.

### Fluorides

Fluorides are another halogen that act as an iodine disruptor. Fluorides are toxic and increase the risk of bone cancer and hip fractures. Fluorides also lower intelligence, increase depression, and lower testosterone levels in men. High levels of fluorides cause mottling, pitting and dulling of the teeth. Lastly, fluorides can produce goiter as well as low thyroid by inhibiting the ability of the thyroid gland to concentrate iodine.

Besides being introduced into drinking water, fluorides are found in toothpastes, dental treatments and a variety of drugs. Selective serotonin reuptake inhibitors (SSRIs) like Prozac and Paxil contain fluoride, and there are reports of increased breast cancer with the use of SSRIs. Since low thyroid causes depression,

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this may be one reason why these drugs can cause depression in some people, and can definitely result in depression when discontinued abruptly.

Other drugs that contain fluoride include: Baycol, Propulsid, Posicor, Astemizole, Flonase, Flovent and Fen-Phen. It would be wise to increase iodine intake if one is on any of these medications.

It is also wise to avoid fluoridated toothpastes and fluoride treatments at the dentist. (Both of us won't let our kids have fluoride treatments.) One of the selling points of NSP's natural toothpaste, Sunshine Brite, is that it is not fluoridated.

## Chlorine

Let's move on to chlorine. Unlike bromide and fluoride, which do not have nutritional value, chlorine is used as a nutrient in the body, and in fairly large amounts. The oxidized form of chlorine forms chlorides, however, and they are toxic.

Dr. Joseph Price, who wrote the book *Coronaries, Cholesterol and Chlorine*, documented that the rise in coronary heart disease parallels the rise in the chlorination of water supplies. He found that chlorine makes cholesterol "sticky" so it adheres to surfaces. Since iodine is needed to cause fats to be released from surfaces (emulsified), and chlorine displaces iodine, this may be part of the reason chlorine contributes to heart disease.

Chlorine is also linked to birth defects, cancer, reproductive disorders (including still birth), and immune system breakdown. Again, all of these health problems can be due to iodine deficiency. Furthermore, when chlorine mixes with organic matter in the water it forms carcinogenic compounds like trihalomethanes.

That brings us to the issue of Sucralose®, which is nothing more than chlorinated sugar. Sugar is bombarded with chlorine, and although most of the chlorine is allowed to dissipate, there is still a lot of chlorine left in the finished product. We anticipate that in five years or so this newest artificial sweetener will go the way of its predecessors as more and more harmful effects are discovered with long term use.

A Nature's Spring reverse osmosis water filtering unit is a great way to reduce chlorine intake in your home or office. You can also purchase water filters for baths and showers.

## Mercury

Mercury is another iodine robber. We won't spend a lot of time on this, but mercury finds its way into the body through silver amalgam fillings, contaminated sea foods, environmental pollution and vaccines.

Finally, while it isn't an iodine robber, radioactive iodine enters the environment from nuclear power plants and nuclear

accidents. Radioactive iodine enters the body and destroys thyroid tissue and other tissues that uptake iodine. Increasing iodine intake is the best protection against radioactive iodine, which brings us to an interesting point. Iodine tablets are part of civil defense plans because taking large quantities of iodine prevents the body's uptake of radioactive iodine. Yet, when a person has a hyperactive thyroid, they are told they should not use iodine because it will make the problem worse. Instead, they are given radioactive iodine, which kills the thyroid.

So, think about this. If the person's body was saturated with sufficient iodine it wouldn't take up the radioactive iodine in sufficient quantities to kill the thyroid gland. This suggests that many, if not all, people suffering from hyperactive thyroid are actually iodine deficient. This may be why some people have found TS II helpful for hyperthyroid.

The bottom line is that with all the iodine robbers we're exposed to, we probably need extra iodine if we want to maintain optimal health.

## Need More Information?

This month's Herbal Hour Video,

### *The Iodine Solution*

Features Kimberly Balas and Steven Horne discussing:

- ✓ The role of iodine in health
- ✓ Why 90% of the population is iodine deficient
- ✓ Iodine disrupters and how to avoid them
- ✓ Iodine and the thyroid gland
- ✓ How to test for low thyroid and iodine deficiency
- ✓ Diseases caused by a lack of iodine and/or low thyroid

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Handouts and a special conference call with David Brownstein, M.D., author of *Iodine: Why You Need It, Why You Can't Live Without It* are available to Silver and Gold Associates with Tree of Light.



## Kimberly Balas' Clinician's Corner

# Thyroid, Breast Swelling and Popping Joints

### Thyroid Question

*My voice bio shows me at only 2% on my thyroid even though I am on my third bottle of iodine at 4 per day. I am also taking Adrenal Support and Thyroid Support. (I just resumed the later.) Shouldn't I be seeing a better reading at this point? Is this a problem that hard to correct or could there be another factor I'm overlooking.*

B.

Iodine isn't the only factor in helping the thyroid, but you do need to give the iodine some time. The iodine has to reach saturation point and I find that usually takes 9-18 months. You may also have some mineral congestion here. Have you tried the Herbal Trace Minerals or Target P-14? I use these a lot with thyroid issues.

Also, the voice bio isn't physically measuring the physical thyroid function, it's measuring thyroid energy. So, have you addressed the emotional aspect of the thyroid, too? That will make a difference on the voice bio for sure. Try the Inflammation homeopathic applied directly on the throat area, along with essential oil of green myrtle. Also look at issues like not speaking up for yourself or suppressing the real words you want to say to people, but don't because you feel it isn't nice. So, instead of speaking up, you "swallow it."

These are just some ideas to consider.

### Breast Swelling

*I have a client, a 50-year-old female, over weight by about 70 pounds, hasn't been to a medical doctor since her last son was born 22 years ago. She feels like her breasts, already a double D cup, are swelling or growing. The left one feels more swollen than the right.*

*She has a calcified duct near the nipple that shrinks at times. Breasts are a little sore around the outer edges of the bra cups, but she only notice this soreness when pushing on them. Every once in a while she will have a sharp pain go through the left breast. She drinks about one to one and a half cups*

*of coffee, maybe four ounces of soda and six to eight glasses of water a day. She craves sweets, especially when stressed. Also, she hasn't had a menses since March of 1999.*

*Any suggestions would be appreciated.*

G.

I just love it when you write up great case studies like this. This is the kind of detailed information people need to collect from clients in order to be able to make good product recommendations. Good job!

This problem would be linked to lymphatic congestion and stagnation, so try Cellular Energy and Lymphatic Drainage. I would have her take Vitamin E and high amounts of iodine. She can get the iodine from large amounts of concentrated black walnut or kelp, or from prescription iodine. Iodine is very important for breast health as the breasts are the second largest users of iodine in the body. She should also reduce caffeine consumption.

### Popping Joints

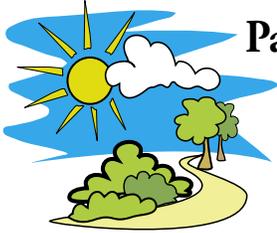
*I have a friend whose joints are popping. What do you do for this?*

L.

I have been using the new sea salt we have as a sodium therapy. Organic sodium is very beneficial for joints. The sea salt will actually balance the adrenals as well as transport energy to the structural system. Try taking 1/2 tsp twice per day in Thai Go or Colloidal Minerals.

**Kimberly Balas is a board certified naturopath and co-owner of Vital Solutions. She is an instructor for Tree of Light and is the head of our research department. She is available for personal consultations. To schedule a consult call Balanced Health Solutions at 321-626-9243.**





## Parting Thoughts from the Herb Guy

# Thyroid Hormones

by Steven H. Horne, RH (AHG)

Our discussion of iodine wouldn't be complete without a discussion of thyroid hormones. This is because a lot of thyroid problems aren't just iodine deficiency. The thyroid works in conjunction with other organs and glands, and if some of these other organs aren't working properly, neither will the thyroid.

For starters, the thyroid needs to get the message from the hypothalamus and pituitary in order to produce thyroid hormones. The hypothalamus, a stalk of the brain, is the master regulator of most of the body's major endocrine hormones. When the hypothalamus detects the need for thyroid hormones, it produces the thyroid-releasing hormone (TRH). The TRH travels to the pituitary gland where it stimulates the release of the thyroid stimulating hormone, TSH or thyrotropin.

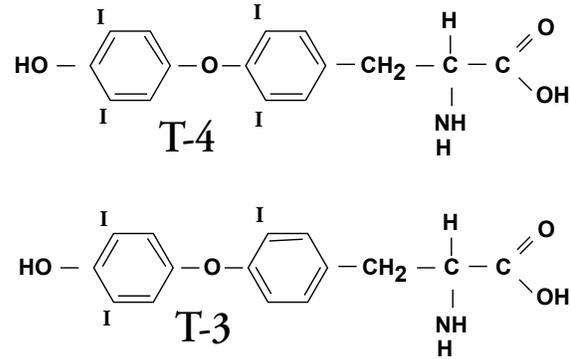
Target TS II is the supplement of choice for getting the hypothalamus and pituitary to stimulate the thyroid hormones. It contains targeted minerals which travel to the hypothalamus and aid in the creation of TRH and then, TSH.

TSH travels through the blood stream and binds to receptor sites in the thyroid gland. It stimulates the thyroid to produce two hormones—thyroxin (T4) and tri-iodotyrosine (T3). T4 and T3 are released in a ratio of about a 4:1 (4 times more T4 than T3). T3 is the more active form. T4 is a storage form of the hormone. T4 is converted to T3 in peripheral tissues, particularly the liver. Cortisol, a stress hormone, tends to stimulate the conversion of T4 to T3, while insulin tends to suppress the production of T4 to T3.

On the top of the next column, you can see a diagram depicting the chemical structure of T4 and T3. If you look closely, you'll see that T4 contains four molecules of iodine (represented by the letter I). T3 contains three molecules of iodine. One molecule has been stripped away, which creates a site of action for the hormone.

Synthetic thyroid hormones mimic T4. They still have to be converted to T3 in order to become active. Most of this conversion takes place in the liver. So, liver problems can contribute to thyroid problems. One can have normal levels of T4, but because it isn't getting converted to T3, the person still has symptoms of low thyroid. Liver herbs may be helpful in this case. 7-Keto also stimulates this conversion.

The thyroid can also produce relatively inactive reverse T3 (RT3). During times of grief, trauma and illness, the body produces more RT3 and less T3, apparently to conserve energy and force us to slow down.



The primary job of these thyroid hormones is to regulate metabolism and to help burn fuel, especially fats. The thyroid acts sort of like a metabolic thermostat. When the thyroid output is low, the fats tend to be stored instead of burned, resulting in weight gain. Since the body burns fat primarily to keep warm, the body temperature tends to be low. The skin is usually dry, again due to a lack of proper fat metabolism, because fats are what keep the skin moist and supple. Reproductive hormones may also be thrown out of balance (since they are made of fat) and energy levels tend to be low because the metabolism is slow. So, there is a big link between reproductive problems and thyroid health.

Finally, there is a big link between thyroid and adrenal function. If the thyroid isn't working properly, it's very likely the adrenals are in trouble, too. This is why Kim and I often use Thyroid Support and Adrenal Support together.

This is just one more reason why the body always needs to be looked at as a whole. One can NEVER treat any problem in isolation. Each health problem we have (including glandular problems like hypothyroid) must always be addressed in the light of what is happening in the whole body.

**Steven H. Horne is a professional member and past president of the American Herbalists Guild, a certified iridologist with the International Iridology Practitioners Association and a gifted teacher and consultant in the field of natural health care. He is president of Tree of Light Publishing.**

