

Nature's Field

An Electronic Journal for NSP Distributors

Black Walnut

Like its cousin, the English walnut (*Juglans regia*), the black walnut (*Juglans nigra*) tree produces edible nuts. My mother used to gather some every fall, husk them, crack them, and pick out the nut meats. Believe me, it's a lot of work. For starters, the hulls contain a dye which colors your hands, so you have to wear gloves to husk them. They are also hard to crack. Pounding them with a hammer will do it, a nutcracker won't. Finally, it takes a nut pick to get the meats out of the pieces of hard shell. The banana nut bread my mother used to make using black walnuts was incredibly tasty and made the effort worthwhile.

It isn't the nuts that are used in herbal therapy, it's the hulls. Black walnut hulls are well known for their antiparasitic effects. Some herbalists claim that only a tincture made from green black walnut hulls works. However, Matthew Wood, AHG, in his *Book of Herbal Wisdom* affirms what most NSP Managers already know—the dried black hulls are also effective at destroying parasites. Black walnut is usually taken with other antiparasitics like Herbal Pumpkin, Artemesia Combination or Paw Paw Cell Reg to destroy parasites.

Black walnut is much more than a parasite remedy. It is also antifungal, antibacterial, and antiviral. It has been used topically for herpes (cold sores, etc.), impetigo, boils, canker sores, eczema, dandruff, ulcerations, acne, itch, shingles, poison ivy rashes, and ringworms. It's tissue healing and anti-infective abilities justify its inclusion as an ingredient in products like Golden Salve and Healing AC Cream. The tincture of black walnut is available from NSP. It too is good for topical use.

Taken internally, black walnut has a mild astringent action that helps tone up the mucus membranes of the digestive tract. Internally, it has been used to reduce intestinal inflammation, heal ulcerations, arrest diarrhea, heal hemorrhoids, stop discharges of blood or mucus in the stool, and tighten up atonic intestines and bowel pockets. It also helps the intestines by improving the balance of intestinal flora by destroying harmful organisms. This is why it is an ingredient in All Cell Detox, a very effective general cleansing formula. The antifungal effects of black walnut make it a valuable component of Caprylic Acid Combination (an antifungal blend), and the antibacterial and detoxifying effects make it an important ingredient in IN-X (a Dr. John Christopher formula for low grade infections).

Another important use for black walnut hulls is to strengthen the thyroid. Black walnut is one of the few land plants that is a good source of iodine. I have found the ATC Concentrated Black Walnut to be especially helpful for low thyroid. It is also an ingredient in Thyroid Activator and MasterGland. Black walnut helps with fat and cholesterol problems, too. Phyllis Light, AHG, told me she used chickweed and black walnut to successfully balance cholesterol problems. Maybe that's why it's included in SF, a formula designed to aid weight loss.

English walnut is used as a flower remedy, and black walnut has some of the same energetic characteristics. All the walnut family secrete substances which inhibit other plants from growing underneath them. This includes their own offspring. The hull of the nuts makes the seeds bounce so they can roll away from the parent tree and have a chance to grow. Walnut flower essence helps children make a clean break from their parents when it is time to "leave the nest."

Walnuts have the perfect signature of the head—they look like a skull with a brain inside of it. Although physically they appear to work on the "gut brain," emotionally they prevent one from being overly influenced by others. According to Edward Bach, the remedy helps anyone making a major life transition to break out of old patterns of thinking. If that's the case, black walnut might be a good remedy for anyone making the transition from modern Western medicine to natural healing!

Selected References

Herbs and Old Time Remedies by Joseph VanSetters
The Book of Herbal Wisdom by Matthew Wood
Bach Flower Remedies: Form and Function by Julian Barnard

In This Issue

Feature Herb: Black Walnut	1
Steven's Ramblings & Ravings:	
Hyperthyroid Disorders	2-3
Kimberly Balas' Clinician's Corner: Vomiting,	
HBP, Weight Gain and Leg Swelling.	4-5
Product Handouts:	
Thyroid Problems	6
Target TS II	7
Announcements/Class Schedule	8



Steven Horne's Ramblings and Ravings

Hyperthyroid Disorders

When I first started studying herbs, everything I read about helping the thyroid pertained to working with low thyroid. While hypothyroidism is still a problem for millions of Americans, there also appears to be an increasing number of cases of hyperthyroid function. Having worked with a number of cases of hyperthyroid disorders, I want to share with you the results of my research and practical experience.

Hyperthyroid simply means that the thyroid is overproducing thyroid hormones. There can be a number of causes for this, but the most common cause is Graves disease, which is an autoimmune condition. Overproduction of the thyroid stimulating hormone (TSH) from the pituitary can also be a cause. There are other, less common, causes as well.

To understand how to deal effectively with hyperthyroid conditions using natural substances, it is necessary to know a little bit about how the body produces 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 (as shown in the diagram on this page). TRH travels to the pituitary gland where it stimulates the release of the thyroid stimulating hormone (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 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.

The primary job of these thyroid hormones is to regulate metabolism and to help burn fuel, especially fats. The thyroid acts sort of like the gas pedal on a car. When the thyroid output is *low*, the metabolic engine runs slowly. As a result, fats tend to be stored instead of burned, resulting in weight gain. Also, since the body burns fat primarily to keep warm, body temperature tends to be low. The skin is dry, again due to a lack of proper fat metabolism. 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*.

With hyperthyroid function the opposite is true; the metabolic engine runs too *fast*. As a result, fuel burns too quickly, which results in weight loss, intolerance to heat, and hyperactivity and restlessness. For example, some of the specific symptoms associated with Grave's disease include bulging eyes, rapid pulse rate (90-160), heart palpitations, tremors, restlessness and anxiety, lack of periods, muscle weakness and impaired sleep.

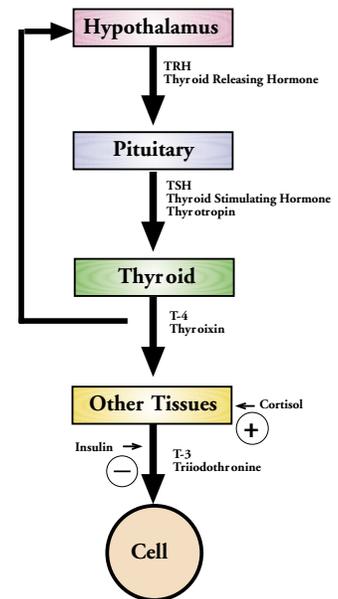
A hyperactive condition of the thyroid, as is found in Grave's disease, is a serious medical condition and needs proper medical attention. The rapid heart beat can overstress the heart and circulation, resulting in life-threatening effects. So, it is essential that a physician monitor someone with a hyperthyroid condition, even if the patient is opting to try a natural approach.

While it is important to have proper medical *monitoring* of a hyperthyroid situation, medical *treatments* for hyperactive thyroid conditions leave much to be desired. While drugs can be used to inhibit thyroid function, physicians usually convince the patient to destroy the thyroid gland with radioactive iodine.

A student who had undergone the therapy once described it to me. He said the medical people told him it was perfectly safe, then locked him in a room by himself while he removed the pill containing radioactive iodine from its lead-lined pill box and swallowed it. He was not supposed to share dishes, wash his clothes, etc. with any other family member for a number of weeks.

When I say this is a therapy designed to "fry" the thyroid gland, I'm not exaggerating. The radioactive iodine is taken up by the thyroid gland, causing it to be irradiated and a large part of its tissue destroyed. Thereafter, the person will have to take medications for low thyroid, as their thyroid gland will no longer function properly. Obviously, there has to be a better way.

There are herbs which inhibit thyroid function. Several plant species contain substances known to bind to TSH receptor sites in the thyroid, inhibiting them and reducing thyroid output.



Unfortunately, none of these herbs is available as singles from Nature's Sunshine. They are, however, fairly easy to find.

Bugleweed (*Lycopus europaeus* or *L. americanus*) is one of the most powerful thyroid inhibitors. It helps with heart problems associated with rapid heart beat or irregular heart rate. It also helps with insomnia and chronic debilitating coughs. Several of these problems bugleweed has been used for are symptoms of hyperthyroidism.

Another herb with powerful thyroid inhibiting effects is lemon balm (*Melissa officinalis*). Both the herb and its essential oil have thyroid inhibiting functions. Studies have shown that freeze-dried extracts of this herb bind thyroid-stimulating immunoglobulin and reduce circulating thyroid hormone.

A mixture recommended by several professional herbalists (which I have successful used myself) is 1 part bugleweed, 1 part lemon balm and 1/2 part motherwort. 30-60 drops of the tincture is taken 3-4 times per day. The motherwort, while not having a direct effect in blocking overproduction of thyroid hormones, helps to calm and stabilize the heart rate.

Another herb with antithyrotrophic (thyroid-inhibiting) effects is *Lithospermum sp.* There are several species that work. I've never seen a commercial lithospermum product, but I have seen some *Lithospermum sp.* growing in the wilds. The problem with lithospermum is that it is also a contraceptive and inhibits the production of reproductive hormones.

In spite of the fact that NSP does not have a hyperthyroid formula, there are some NSP products that do help with Grave's disease and other hyperactive thyroid gland disorders. One of these supplements is IF-C, a Chinese anti-inflammatory. IF-C is indicated for rapid heartbeat, a red tongue, and conditions involving excess heat, such as fever or inflammation. It clears toxins from the blood and reduces the heat.

IF-C helps with some of the underlying reasons why the thyroid is hyper. No organ becomes hyperactive unless there is an irritant present causing a reaction. According to Dr. Henry Bieler in *Food is Your Best Medicine*, the glands act as a third line of defense. When toxins get past the intestinal membranes and the liver and enter the blood stream, the glandular system become overexcited in an effort to increase metabolic rate in order to drive the toxins out of the body. So, according to this theory, a hyperactive thyroid would signal a need to cleanse the blood of toxins, which is exactly what IF-C is for.

When I first worked with someone diagnosed with Grave's disease, I reasoned that when one gland is overactive, it is trying to make up for other glands which have become underactive. The adrenals tend to work with and balance the thyroid; and I have discovered that people with hyperactive thyroid function also tend to have adrenal problems. The stress hormone, cortisol, is an anti-inflammatory, so hyperthyroidism may be

a sign of excess stress, accompanied by adrenal weakness. So the cooling effect of the adrenal hormone, cortisol, is reduced. This is just a theory, but in the cases of hyperthyroid I have seen, adrenal weakness did seem to be a problem. So, licorice root or Nervous Fatigue Formula have also proved helpful in certain cases.

Diet can also play a role in helping to balance an overactive thyroid. High carbohydrate diets, coupled with low protein and/or fat intake, tend to elevate thyroid function. So, a properly balanced diet with correct proportions of fats, proteins, and low glycemic carbohydrates is helpful.

Cruciferous vegetables, such as cabbage, broccoli, and cauliflower tend to have an inhibiting effect on the production of thyroid hormones. Millet also has a slight thyroid inhibiting effect. These foods should be consumed freely.

Contrary to what many people say, it is not wise for hyperthyroid patients to supplement with iodine of any kind. So, supplements like Thyroid Activator, kelp, dulse and Target TS II should be avoided. The only exception to this is TS II with Hops. A few people have reported cases where this formula was helpful for hyperthyroid. The hops in TS II may be helping to counterbalance the tendency for overstimulation of the thyroid. Milk, bread, salt, and other products which contain large amounts of iodine should be avoided.

One final word of caution is that there are some reports that aspartame may cause hyperthyroid disorders. So, products containing the artificial sweetener aspartame (aka Equal and NutraSweet) should also be avoided.

Again, hyperthyroid conditions can be serious and life-threatening, so the situation should be *monitored* by a physician to make certain the therapy is working, even when the person chooses to go the natural route. However, irradiation of the thyroid gland is *not* the only answer; the information outlined in this article has helped many people to overcome this illness.

Selected References

Therapeutic Herb Manual by Ed Smith
Professional Guide to Conditions, Herbs and Supplements by IntegrativMedicine.
<http://webhome.idirect.com/~wolfknowl/thyroid.htm>

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Kimberly Balas' Clinician's Corner

Vomiting, HBP, Thyroid Medication, and Leg Swelling

What Causes Vomiting?

I have been on colon cleansing herbs for a long time and was always told that if the colon is moving along, so you have a clear passage through it, you won't vomit. Well, I hate to say it, but you can and I did. I'm ever so much better today, but apparently there is something to this "bug" thing people are always talking about. More importantly, I've never heard anyone explain why you vomit, i.e., the mechanisms that go into it. Can you explain it?

Annie

Vomiting is one of the reactions caused by the body's second line of immune defense, the liver. The first line of immune defense is the mucus membranes lining the intestines, and the skin. When toxic substances (either from chemicals or infection) overwhelm the liver, one of the liver's responses is to flush the irritant back into the intestinal tract through the bile. This toxic bile irritates the upper portion of the small intestines.

The intestines don't want the irritant to travel the entire length of the intestinal tract, so they start reversing the normal peristalsis. Then, instead of pushing things down, things are pushed upward. This reversing of the peristalsis causes nausea. If this continues, the toxic material is pushed back up through the stomach.

When something foreign comes in contact with one of the body's lines of immune defense, and the body identifies the invader, a process is initiated that seeks to keep the invader out of the body. For example, if you get a runny nose, then the body is flushing an irritant through the sinuses. This is what Steven Horne means by the phrase, "the cold is the cure," explained in the *Dr. Mom/Dr. Dad* course.

IgG and IgA antibodies are involved in this process. These antibodies are produced when an antigen (the invader) is identified coming across the primary line of immune defense. The body records the information about the invader using these antibodies, which store the information for the rest of one's life so that it can be retrieved if the same antigen is encountered again. This time the body will already have a built-in identification and elimination plan.

Nausea and vomiting are generally indications that the liver is on toxic overload and the immune system is weakened. So, the body is doing the only thing it can to protect itself—flushing the invader. This can also occur on a cleanse when the liver starts dumping toxins too fast. The toxins are eliminated via the bile, which then irritates the intestines, causing them

to flush the irritant out by the fastest route, which is up, not down.

When toxins are in the blood stream, a third line of immune defense kicks in gear. This is the glandular system, which increases secretions of certain hormones to increase specific metabolic processes to flush toxins through other channels of elimination. This initially results in hyperactivity (irritation) of the glands, but eventually results in hypoactivity as the glands become progressively weakened by their constant overstimulation. This system of three lines of immune defense was taught by Dr. Henry Bieler in his book, *Food is Your Best Medicine*.

High Blood Pressure

One of my clients is having a blood pressure problem that I just can't seem to solve. He's 47, works a fairly high pressure job, is 80 lbs. overweight, and leads a fairly sedentary life. He does eat a somewhat healthy diet, though it probably could be better.

He's been through 2 bottles of an Ayurvedic herbal formula I have never seen fail with hundreds of people. Yet he says his blood pressure remains about 190/100.

He's also taking a good multivitamin, fish oil, capicum, and garlic. Any ideas? I'm open to any and all suggestions!!

Linda

A few things I would consider would include heavy metals, a high free calcium index, and problems with kidney function.

First, you may start flushing the heavy metals with Heavy Metal Detox.

Second, I would check his phosphorus levels in conjunction with his serum calcium to see if he is building up plaque in the arteries. You do this by multiplying the phosphorus number on a laboratory blood report by 2.5, which will give you a predicted calcium level. Next take the actual serum calcium level from his labwork and subtract the amount of predicted calcium from it. If the result is higher than 1.4, he is at a moderate to high risk of having the calcium depositing in the arteries. This would reduce blood flow, which would increase blood pressure. If this is a problem, add hydrangea herb and extra magnesium. Empty the contents of Magnesium Complex capsules under the tongue.

Once you begin this program it will start dispersing toxins and put a strain on the kidneys. The function of the kidneys is to filter out all excessive ions such as sodium, chloride, and potassium. The kidneys also remove the following waste products: creatinine, BUN, and uric acid. The two kidneys contain about two million nephrons through which the blood is filtered.

The basic function of the nephron is to clean the blood plasma of unwanted substances, particularly the end products of metabolism creatinine, BUN, and uric acid. The kidneys do this through two mechanisms, filtration and secretion. As the glomerular filtrate flows through the tubules, over 99 percent of the water and varying amounts of its solutes are reabsorbed.

Several hormones help to regulate this process. The antidiuretic hormone from the pituitary retains water but removes solutes. Aldosterone controls potassium excretion and sodium reabsorption. Parathyroid hormone causes absorption of calcium and loss of phosphorus.

The renin-angiotension system is stimulated by decreased blood flow through the kidneys. The purpose of this system is to increase blood pressure when necessary. Renin is a small protein enzyme released by the kidneys, and stored as prorenin. When the blood pressure drops, prorenin is converted into renin. Renin also works as an enzyme on two plasma globular proteins called renin substrate 1 and renin substrate 2 or angiotension 1 and 2 (powerful vasoconstrictors). The angiotension 2, being the most powerful constrictor, is also found in the epithelium of the lungs. Angiotension decreases water and mineral loss through the kidneys while stimulating the adrenals.

Aldosterone, which is strongly influenced by this renin angiotension system, causes strong reabsorption of sodium into the distal tubules to balance extracellular potassium ions. The Kidney Drainage formula is may really help here to activate the renin dumping, which helps to lower the blood pressure.

Also, make sure his posterior pituitary is supported with alfalfa, rose hips, potassium or horsetail. Lastly, since he is in a high stress job, meditation, deep breathing, or other relaxing exercises may also help, since stress hormones also elevate blood pressure.

Weight Gain and Thyroid Medication

A lady called who is on Armour thyroid medication and is gaining a lot of weight—8 lbs. in 2 weeks. She wants to know what to add to her program to balance the thyroid so she will stop gaining weight. Her other hormones are also out of sync. I suggested Master Gland, Black Cohosh and B complex. I have not seen her as of yet.

Any suggestions? Thank you in advance.

Janice

The primary thyroid hormone is thyroxin (T4) which is what the Armour thyroid is supplying. However, T4 has to be converted into triiodothyronine (T3), the more active form, in order to burn fat. This conversion takes place primarily in the liver where the iodine is used to emulsify fats for combustion. Instead of focusing on the thyroid, I would consider the possibility of liver stagnation.

If the liver is congested then the T4 isn't going to be properly converted to T3. This will cause weight gain, because the toxins build up and the body has to produce more fat cells to store them. Selenium is required for T4-T3 conversion. High insulin levels inhibit this conversion, so avoiding high glyce-mic carbohydrates may also be helpful. High glyce-mic carbohydrates are sugary or starchy foods which trigger excessive insulin production. The T4 to T3 conversion is also enhanced by 7-Keto.

It is highly unlikely, however, that she would gain that much fat in two weeks. This sounds more like fluid retention.

I would consider using SE, MSM, and SAM-e to open up the liver detoxification pathways and decongest the liver. This would definitely affect other hormones as the liver is the converter of hormones. I would also add the Lymph Drainage Formula to reduce the excess fluid or stagnation in the lymphatics and tissues.

Diabetic with Swollen Legs

My dad's leg is swollen. He is diabetic. I want to support the lymph and the kidneys. What would you use?

LeRae

I would do some Epsom salt wraps with the Herbal Trim and Nature's Fresh on his legs to draw toxins out. I would support the cells so they can dump toxins better by using Cellular Energy. I would support the kidneys with Kidney Activator (K-C).

Decrease the sodium in his diet and increase his water intake. Lymphatic massage of the leg with lavender and sandalwood can help too. Another therapy is to alternate soaking the legs in cold and warm water to stimulate circulation. I find it usually takes a combination of remedies to best results—not just one.

Kimberly Balas is a board certified naturopath and an instructor for NSP's NHC program. She is also a board member and a certified iridology instructor with the International Iridology Practitioners Association (IIPA). She is available for personal consultations in her Melbourne, FL office or by phone (321-725-7731).





Thyroid Problems

Herbs and Supplements for Thyroid Imbalance

The thyroid is a very important endocrine gland. Located at the base of the neck, it secretes two hormones which help regulate the body's metabolic rate—thyroxin (T4) and tri-iodothyronine (T3). T4 and T3 are released in about a 4:1 ratio (4 times more T4 than T3). T3 is the more active form. T4 is converted to T3 in peripheral tissues, particularly the liver, so liver malfunction can affect thyroid function. The enzyme required for this conversion needs selenium—a mineral deficient in many diets.

Problems with the thyroid gland are extremely common. It has been estimated that as many as one and a half billion people in the world are at risk for thyroid problems. Hypothyroid (low thyroid function) is the most common thyroid malfunction, but it is also possible to have a hyperactive thyroid gland. We'll address both in this handout.

Hypothyroid

When the thyroid function is low, the metabolic rate diminishes. Symptoms of low thyroid include dry skin, fatigue, loss of sexual desire, lowered body temperature, and weight gain.

Lack of iodine is one cause of poor thyroid function, since iodine is critical for the gland's activity. Iodine is a very rare nutrient in land plants but is common in fish and sea vegetables like kelp, dulse, bladderwrack, and Iris moss.

Adding foods rich in natural iodine to the diet will often improve thyroid function. Kelp, in particular, is very beneficial for the thyroid because it contains di-iodotyrosine. Two molecules of this substance are attached by the thyroid peroxidase enzyme in the thyroid to form T4. So, kelp contains a precursor to the thyroid hormone, making synthesis of thyroxine easier.

Sea vegetables, like kelp, can be sprinkled on food or added to soups, stews, etc. They add a pleasant salty taste to foods. Two formulas are available which contain these sea vegetables and are designed to feed the thyroid gland and aid its function. They are TS II and Thyroid Activator. These formulas can be very helpful in cases of moderately low thyroid.

Lack of iodine is not the only cause of low thyroid. Halogens (fluoride, chlorine, and bromide) are all highly reactive and disrupt iodine in the body. All are additives to municipal water supplies. Corticosteroids depress the thyroid. Aspirin (salicylates) and anticoagulants can also depress thyroid activity. It is wise for anyone with a low thyroid condition to avoid these chemicals.

Deficiencies of other nutrients, such as copper, zinc, manganese, and l-tyrosine can also result in low thyroid. Thyroid Support contains these and other nutrients necessary for thyroid function along with kelp, and thyroid, pituitary and hypothala-

mus glandular substances from New Zealand. The glandulars help to rebuild glandular tissue, while the nutrients and herbs improve glandular function, making Thyroid Support useful for severe cases of low thyroid.

Weaning off of thyroid medication is possible for people whose thyroid gland has not been destroyed or removed. Thyroid medications should not be eliminated or reduced without monitoring the situation with a physician. A person can take kelp (6-10 capsules per day) or a thyroid formulas for about a week, then reduce their thyroid medication in half while continuing to take the herbs. Wait one to four weeks and lower by half the dose of thyroid medication while maintaining supplement intake. If low thyroid symptoms reappear go back to the higher dose. After reducing the dose to 1/8 or 1/16 of the original dose, you can also try skipping days. The goal is to find the minimum amount of thyroid medication required to maintain health, or to eliminate the thyroid medication entirely. Again, this should never be attempted by persons whose thyroid gland has been totally destroyed or removed.

Hyperthyroid

An overactive thyroid gland is also possible. The most common cause of hyperactive thyroid is Grave's disease, an autoimmune disorder. Symptoms of hyperthyroid function include bulging eyes, rapid heart rate, weight loss, anxiety, and sleep disturbances. This is a serious condition requiring medical attention. Unfortunately, medical therapy is usually less than desirable. Radioactive iodine 131 is typically used to "fry" the thyroid gland of an overactive patient.

There are natural ways of reducing overactive thyroid function. Diets high in carbohydrates and low in fat or protein tend to overstimulate the thyroid. Cruciferous vegetables have a mild inhibitory effect. A stronger inhibiting effect can be found in lemon balm and bugle weed. Rapid heart rate can be calmed by using motherwort. IF-C can be used to reduce inflammation which may be causing hyperactive thyroid function, while adaptagens (such as eleuthero root or Suma Combination) can be used to support the adrenals easing stress and anxiety.

Natural therapy for an overactive thyroid condition should be only be done under the care of a qualified health professional and monitored by a physician for effectiveness. You may also consult some of the references below for additional information.

Selected References

Professional Guide to Conditions, Herbs and Supplements by IntegrativeMedicine
Botanicals for Thyroid Function and Dysfunction by Ryan Drum, Medicines from the Earth: Official Proceedings, 2000.

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Target TS II

Powerful Formula for Low Thyroid

Target TS II is a specially designed supplement to help stimulate thyroid function. It contains herbs rich in iodine, a nutrient vital to the thyroid gland. It also contains a mixture of amino acid chelates which have been shown to stimulate the production of hormones from the hypothalamus and pituitary which stimulate thyroid function. The formula is useful for diagnosed cases of low thyroid and symptoms of low thyroid such as obesity, low body temperature, and dry skin.

The amino acid chelates provide the primary benefits of this formula. To understand how these chelates work, it is necessary to understand a little bit about thyroid function. When a need for the thyroid hormones is detected, the hypothalamus produces the thyroid releasing hormone (TRH). TRH travels to the pituitary which stimulates the production of the thyroid stimulating hormone (TSH or thyrotrophin). TSH travels through the blood stream to receptor sites in the thyroid gland. As TSH binds to these receptor sites, it stimulates the production of thyroxin (T4) and tri-iodotyrosine (T3).

TRH from the hypothalamus starts the whole cascade of hormone production, so increasing production of TRH will result in an increase in TSH and ultimately T3 and T4. Three amino acids are found in TRH. They are proline, histidine, and glutamic acid. In this formula, zinc and manganese, two trace minerals critical to the production of TRH, are chelated (or bound) to these three amino acids. This creates a targeted mineral supplement, meaning the amino acids will tend to carry the minerals directly to the hypothalamus.

This concept was verified in scientific studies using rats. These studies used radioactive tagging to trace the path of a manganese chloride supplement compared to the path of a manganese supplement chelated to proline, histidine, and glutamic acid. Rats given the amino acid chelate had twice the level of manganese in the hypothalamus as rats given the manganese chloride. This increase was observed during the first hour. During the second hour, levels of the amino acid chelated manganese fell in the hypothalamus, but rose in the pituitary and thyroid glands. This shows that the chelated supplement was moving through the normal cascade of hormones to produce more T4 and T3 in the thyroid. No such change was observed in the rats given the manganese chloride.

Studies with both rats and pigs also demonstrated that this amino acid chelate of manganese resulted in a reduction of body fat. One of the primary jobs of the thyroid hormone is to burn fat. This study proves this amino acid chelate was able to increase the activity of fat-burning thyroid hormones.

This special thyroid enhancing amino acid chelate is mixed in a base of herbs which also support thyroid function. The purposes of these complementary herbs are as follows:

Irish Moss grows off the coasts of the North Atlantic, France and Ireland. This herb contains iodine, which is essential for proper thyroid function. Irish moss contains mucilage with large amounts of sulfur which helps in detoxification and the elimination process. It is considered a good remedy for intestinal and respiratory problems.

Kelp can be found on submerged rocks on both coasts of North America, and in Europe north of the Mediterranean. It too contains large amounts of iodine which helps maintain proper thyroid function. Kelp is particularly valuable for nourishing the thyroid gland because it contains di-iodotyrosine, a precursor to the thyroid hormone. An enzyme in the thyroid (thyroid peroxidase) attaches two molecules of di-iodotyrosine to produce thyroxin or T4. So kelp makes the synthesis of thyroid hormones easier. Like Irish moss, it is also helpful for removing toxins from the intestinal tract. Both of these sea vegetables are good sources of trace minerals.

Hops is a nervine. It is included in this formula because nervous system problems and thyroid problems are often related. Hops helps the body relax, which may help to relieve stress on the thyroid gland.

Parsley is rich in sodium and potassium (and other mineral electrolytes) which are essential for proper regulation of bodily fluids. It is a diuretic which helps relieve high blood pressure and the promotion of proper kidney function.

Capsicum is a stimulant that speeds up the circulatory system which in turn helps with digestion, blood flow, elimination and the promotion of sweating. It's been called a "cure-all" by many herbalists due to its ability to aid in tissue repair.

Use and Dosage

To support thyroid function, use two capsules of Target TS II 2-3 times daily. As an aid to weight loss, use two capsules at breakfast and one capsule at lunch. This formula should not be used by persons with hyperactive thyroid disorders such as Grave's disease.

Selected References

Minerals: Right on Target by Steven N. Harvey

Nutritional Herbology by Mark Pedersen

Botanicals for Thyroid Function and Dysfunction by Ryan Drum, Medicines from the Earth: Official Proceedings, 2000.

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Special Offer on Blood Type Kits

Our supplier for blood type kits inadvertently shipped us a double order, then gave us a discount for keeping the extra order. We're passing the savings on to you. You can buy six blood type testing kits for \$69.95 (regularly 6 for \$95.76). Offer good while supplies last.

Learn About NSP's Chinese Herbs

Our latest Herbal Hour Video features Steven Horne talking about one of his favorite subjects, NSP's Chinese Herb line. This presentation, originally delivered on NSP's educational cruise in November 2003, will help you understand how to use these powerful formulas to help others. The video is available for \$29.95.

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at www.treelite.com to order.**

In The Works

With the *Dr. Mom/Dr. Dad* and *Practical Iridology* courses complete, Steven will now be focusing on a new *Comprehensive Guide to Nature's Sunshine Products*, which will be part of a third new course. Part of this project will be the production of a new *Complete Lifestyle Analysis* form to replace our *Body Systems Questionnaire*.



Class Schedule

Tree of Light Classes Call 888-707-4372 to register.

Biochemical Blood Analysis

May 1-2 Chambersburg, PA \$225.00
Taught by Kimberly Balas. Will be held at the Four Points Sheraton, 1123 Lincoln Way East, Chambersburg. Call hotel at 717-263-9191 for room reservations.

Biochemical Blood Analysis

June 12-13 Nashville, TN \$225 before 5/15
Taught by Kimberly Balas \$295 thereafter

For a listing of Dr. Mom/Dr. Dad classes taught by our independent instructors, go to www.treelite.com/schedule.php

Other Events

At the Heart of Natural Healing—Clayton College Symposium

April 22-25 Wyndham Peachtree Conference Center
Atlanta, Georgia
Call 866-699-2264 or go online at www.ccnh.edu to register

Subscription Information

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Tree of Light Publishing is an independent educational organization dedicated to research, writing, and education in the field of natural health. Our approach discusses health on all levels: physical, mental, emotional, spiritual, social and environmental.

Important Notice

The information in *Nature's Field* is for educational purposes only and should not be used to diagnose and treat diseases. If you have a serious health problem, consult a qualified health practitioner.

In an effort to offer you a variety of viewpoints and to broaden your understanding of health, body systems and natural healing, *Nature's Field* selects a variety of writers. The viewpoints expressed by each writer do not necessarily reflect the opinions or philosophies of Steven Horne or Tree of Light and its staff.

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