



## IODINE

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Book: *Iodine: Why You Need It* by David Brownstein, MD  
Nascent Iodine

### IODINE DOSAGES AND TREATMENTS

### See also:

**Sea Vegetables: Kelp, Kombu, and Dulse**  
**Thyroid**

### Books:

*Iodine: Why You Need It, Why You Can't Live Without It* by David Brownstein, M.D.  
*Iodine: Bringing Back the Universal Medicine* by Dr. Mark Sircus

### Articles:

[Iodine and Breast Cancer](#)  
[Iodine Treats Breast Cancer, Overwhelming Evidence by Jeffrey Dach MD](#)

### Websites:

[Zoe Alexander's Iodine E-Group](#)  
Dr. Mark Sircus: <http://iodine.imva.info>

### Audio/Video:

### Publications:

### Organizations:

### People:

Dr. David Brownstein  
<http://www.drbrownstein.com>  
Dr. Mark Sircus



**Dr. Gabriel Cousens**

Dr. Guy Abraham

Dr. Bernard A. Eskin

Dr. Jorge Flechas

Dr. William Shevin

Dr. Jonathan Wright

Dr. Donald W. Miller

Dr. David Derry

**Integral Nutrition:**

**Sea Vegetables: Kelp, Kombu, Dulse  
Nascent Iodine**

**Conventional:**

**Morton's Iodized Salt (Yuck...)**

**Terms:**

## **IODINE AND THE IMMUNE SYSTEM**

Source: David Wolfe, January 2006 Interview

**"Iodine powers the immune system. The body will rob iodine from the Thyroid in order to give it to the immune system."**

## **IODINE AND THE BODY**

Source: The Iodine Group, <http://iodine4health.com/body/body.htm>

David Rainoshek, M.A. : This is a truly excellent resource created by the Iodine Group. Click the links below to go to a much more thorough explanation of each topic, with book excerpts from the pros in this field.

Iodine is detected in every organ and tissue in the body. It is found in high levels in the thyroid, breast, stomach, saliva, ovaries, liver, lung, heart, and adrenals. It is essential in pregnancy.

### **Iodine and the Thyroid.**

Often, iodine is treated as if it is important only to the thyroid, and the effects of iodine on the rest of the body are ignored. However, iodine seems to impact every organ and system of the body.

Much of the research has been done on the thyroid since iodine is essential for the formation of thyroid hormones and the thyroid hormones affect every cell of the body. The primary thyroid hormones are T3 and T4, named for the number of iodine atoms contained. For example, T3 contains

three iodine atoms and T4 contains four iodine atoms. Recent research indicates that T2 and T1 are also important hormones.

Many studies have been done on the metabolism of iodine by the thyroid. The [NIS](#) (Sodium/Iodide Symporter) allows iodide to be taken into the thyroid cells at levels of concentration much higher than the levels in the blood. Once the iodide is in the cell, it undergoes a complex metabolic process as it gets transformed into the thyroid hormones.

### **Iodine and the Breast.**

There is an extensive body of research and theory on iodine and the breast. The breast contains [NIS](#) receptors and is known to concentrate iodine in the excreted milk. Iodine is considered important for proper breast structure and health. The specific form of molecular iodine (I<sub>2</sub>) (versus iodide, I<sup>-</sup>) is considered to be essential for a healthy breast.

Research on iodine and the breast focuses on (1) fibrocystic breast disease, (2) breast cancer, (3) iodine metabolism and (4) relationships between thyroid issues and the breast.

### **Iodine and the Brain (CNS).**

Iodine is known to be essential for the development of the brain. Cretinism, a severe form of mental retardation with physical difficulties as well, is caused by severe iodine deficiency in the mother during pregnancy. It is the best known of the Iodine Deficiency Diseases and is still a problem in much of the world. Many suspect that lesser forms of mental retardation are also caused by iodine deficiency.

### **Iodine and the Heart.**

Iodine is essential for the heart. The thyroid hormones (which are molecules containing iodine) have major effects on the heart and circulatory system.

### **Iodine and the Immune System.**

Iodine is accumulated by the immune system, especially by neutrophils during phagocytosis (engulfing of bacteria and other foreign bodies). A potent antimicrobial system is created with a peroxidase, hydrogen peroxide, and a halide. This system is highly effective against bacteria, viruses, fungi, and other micro-organisms. During this process, iodoproteins such as monoiodotyrosine (T1) are created.

### **Iodine and the Gastrointestinal System.**

Iodine is concentrated in the stomach and is being studied in relationship to stomach cancer. Iodine is also important in the production of stomach acidity, bowel movements, and candida.

### **Iodine and the Skin.**

Much of the body's iodine is found in the skin. Moreover, iodine can be absorbed through the skin. Exactly what the iodine is doing in the skin and the various factors that affect transdermal absorption are not yet clear.

### **Iodine and Hormones.**

In addition to thyroid hormones, iodine also affects other hormones. Iodine affects estrogen metabolism, reported to transform estrone and estradiol to estriol. Iodine affects the ovarian production of estrogen and also affects estrogen receptors (at least in the breast).

### **Iodine and the Ovaries.**

Ovaries concentrate iodine and have [NIS](#) symporters. Ovarian iodide uptake varies with sexual activities and is enhanced by estrogens. Iodine deficiency is related to ovarian cysts and ovarian cancer.

### **Iodine and the Lungs.**

There is a long history of the therapeutic use of iodine for lung issues. It has been used in asthma, bronchitis, and emphysema. It is presently being studied in lung cancer.

### **Iodine and the Eyes.**

Iodine occurs in large quantities in the ciliary body and lachrymal glands of the eye. It has been related to cataract formation and glaucoma, and is seen as useful in treating eye infections. Iodide has been found to be protective against UVB radiation.

### **Iodine and the Mouth.**

The salivary gland concentrate iodine 20 to 100 times serum levels. The function of the iodine in the saliva is not yet clear. Povidone-iodine is used as a disinfectant in dentistry for periodontal issues.

### **Iodine and Bones.**

Several studies have now shown a relationship between iodine and bones.

### **Iodine and the Blood.**

Iodine has been studied as an antioxidant in human blood and has been found to be as powerful as Vitamin C.

### **Iodine in Evolution.**

Some of the most fascinating work on iodine has been in the field of evolution, where scientists have been researching how iodine came to be concentrated by certain parts of the body.

## **IODINE: SUPERPOWER FOR THE IMMUNE SYSTEM**

Source: *Sodium Bicarbonate: Rich Man's Poor Man's Cancer Treatment* by Dr. Mark Sircus

Oncologist Dr. Tullio Simoncini states, **“Every tumour of the skin can be completely removed with Iodine Tincture 7%, brushed many times (10-20) a day. When the crust is formed, don’t take it away, but treat the area continuously and wait until it falls without any other intervention except the Iodine tincture. When the crust falls down the third time, the patient is healed.”**

One of the principle reasons iodine is so effective for skin cancer is that, according to Dr. Simoncini, skins cancers are caused by Candida fungus which has adapted itself to metabolising the most proteinaceous constituents of the epidermis and that therefore only rarely can it be treated with sodium bicarbonate solutions.

*There is growing evidence that Americans would have better health and a lower incidence of cancer and fibrocystic disease of the breast if they consumed more iodine. A decrease in iodine intake coupled with an increased consumption of competing halogens, fluoride and bromide, has created an epidemic of iodine deficiency in America.*

*Dr. Donald Miller Jr.*

A newly discovered oxidant defense system is found in the free radical scavenging capacity of thyroid hormones Thyroxine, reverse-T3 and iodothyronines seem to be important as antioxidants and inhibitors of lipid peroxidation[14],[15]and is more effective than vitamin E, glutathione and ascorbic acid.[16]

Doctors involved in the chelation of children with neurological conditions need to take notice and start treating them with iodine as a primary not secondary form of treatment.

*The ductal cells in the breast, the ones most likely to become cancerous, are equipped with an iodine pump (the sodium iodine symporter, the same one that the thyroid gland has) to soak up this element.[17]*

*Dr. Donald Miller*

**Iodine is a well-known topical germicidal agent effective against a wide spectrum of organisms including bacteria, fungi and protozoa. Iodine exhibits good activity against bacteria, molds, yeasts, protozoa, and many viruses. Indeed, of all antiseptic preparations suitable for direct use on humans and animals and upon tissues, only iodine is capable of killing all classes of pathogens, gram-positive and gramnegative, bacteria, mycobacteria, fungi, yeasts, viruses and protozoa. Most bacteria are killed within 15 to 30 seconds of contact.**

There are actually four halogens: iodine, bromine, fluorine and chlorine. All these halogens use the same receptors in the body. Therefore if a person’s diet is deficient in iodine the iodine receptors in the thyroid and stomach, for example, may fill up with bromine which is common in grains, bleached flour, sodas, nuts and oils as well as several plant foods. Iodine is depleted by bromine, which is used as a spray on fruits and vegetables, in baked goods, as a fumigant, and in Prozac, Paxil and many other pharmaceutical drugs. Chlorine, fluorine, and fluoride are chemically related to iodine, and compete with it, blocking iodine receptors in the thyroid gland.

**Dr. David Brownstein says that fluoride inhibits the ability of the thyroid gland to concentrate iodine**

and research has shown that fluoride is much more toxic to the body when there is iodine deficiency present. **When iodine is supplemented the excretion rate of the toxic halides bromide, fluoride and perchlorate is greatly enhanced.**

**Brownstein says that after only one dose of iodine the excretion of fluoride increased by 78% and this is very important for those who are drinking fluoridated water or are taking medicines with fluoride in them; bromide excretion rates increased by 50%. Our environment is loaded with the toxic halides bromine and fluorine and up to now we have had no way to detoxify the body of these thyroid poisons.**

## References for "Iodine"

[14] Oziol L, Faure P, Vergely C, Rochette L, Artur Y, Chomard P, Chomard P (2001) In vitro free radical scavenging capacity of thyroid hormones and structural analogues. J Endocrinol 170 :197-206

[15] Berking S, Czech N, Gerharz M et al. (2005) A newly discovered oxidant defence system and its involvement in the development of Aurelia aurita (Scyphozoa, Cnidaria): reactive oxygen species and elemental iodine control medusa formation. Int J Dev Biol 49:969-76

[16] Tseng YL, Latham KR (1984) Iodothyronines: oxidative deiodination by hemoglobin and inhibition of lipid peroxidation. Lipids 19:96-102

[17] [www.nutritionresearchcenter.org/healthupdate/2007/02/are-americans-getting-enough-iodine.html](http://www.nutritionresearchcenter.org/healthupdate/2007/02/are-americans-getting-enough-iodine.html)

## **IODINE: THE UNIVERSAL AND HOLISTIC SUPER MINERAL**

Source: Gabriel Cousens, M.D., [Dr. Cousens' Blog](#), Edited by Nonnie Chrystal, B.S.

Recently Dr. Mercola surprisingly stated that the highest amount of daily iodine intake should be no more than 400 micrograms. This is only slightly higher than the FDA recommendation, which is 150 to 290 micrograms daily, dependent upon age, gender and life cycle. However, it is dramatically less than some of the leading iodine medical experts suggest, as closer to, at least, 12 to 18 milligrams daily, approximately 45 times higher. Why this discrepancy? And how can Dr. Mercola, who is often so correct in his understanding, in my opinion, miss the mark exponentially?

Historically, as early as 1911, people normally took between 300,000 – 900,000 micrograms daily without incident. This is over 2,000 times more than Dr. Mercola's recommendation. How is it that now only 1/5,000<sup>th</sup> of this dose is now considered safe? In 1948 there was a poorly performed and, since then, never replicated study alleging what is known as the Wolff---Chaikoff effect. The Wolff--- Chaikoff effect suggested that theoretically hypothyroidism could occur as a result of excess iodine. This study indicated a decreased dosage to 2 milligrams daily would be safer. (This is still an amount 5 times higher than what Dr. Mercola is recommending.)<sup>1</sup>

Although the 1948 Wolff–Chaikoff study suggested that a temporary inhibition of thyroid hormone synthesis may happen, no clinical symptoms of hypothyroidism have ever been noted with higher doses according to Dr. Mark Sircus in his book on iodine - *Iodine: Bringing back the Universal Medicine*.<sup>2</sup> Dr. Sircus, a world expert on iodine, feels that people may safely take 10–200 milligrams daily without clinically adverse effects. Even the Food and Nutritional Board at the Institute of Medicine has set the tolerable upper limit of 1,100 micrograms of iodine daily (3 times higher than Dr. Mercola’s recommendation).<sup>3 4 5</sup> Other researchers have used between 3,000–6,000 micrograms/day to prevent goiter (14 times higher than Dr. Mercola’s recommendation).<sup>6</sup>

By looking at the overall holistic iodine story, we can create a fuller, more accurate understanding of this discussion. Iodine is found in every single one of our body’s hundred trillion cells. Without adequate iodine levels life is impossible. Iodine is the universal health nutrient and brings health on many levels.

It is interesting to note, when addressing the question of safe dosage, that higher iodine levels have been used in studies since the early 1900’s. For example, 1917 through 1922, Dr. David Marine proved that iodine reversed goiter in a study in which 2,000 schoolgirls were given an equivalent of 18.6 milligrams daily (18,600 micrograms) for 2 ½ years with a dramatic success rate. This study was the reason the U.S. began to iodize salt. Sadly today less than 20–25% of salt is iodized anymore. And with the unfounded “no salt–low salt” scare from the 1984 NHANES study, even fewer are receiving iodine from iodized salt, which only has about 10% bioavailability anyway.

In 2003 Dr. Zhang showed that potassium iodide reversed lung cancer tumors in mice. The total amount administered was 100 milligrams (100,000 micrograms) daily for 20 days, and this is approximately 50 times more than Wolff – Chaikoff recommended in 1948 and 250 times more than Dr. Mercola’s recommendation. The study lasted for 60 days: 34 days to grow 5 mm tumors, and 26 days for the lung cancer tumors to significantly decrease.<sup>7</sup>

In 1993, Dr. Ghent administered to 1,368 patients 5 milligrams, or 5,000 micrograms, daily (12.5 times more than Dr. Mercola’s recommendation) with no evidence of the Wolf–Chaikoff theoretical problem of hypothyroidism. This is almost 12 times more than Dr. Mercola’s recommendations. This was done by Dr. Ghent, who, at this dosage, reversed fibrocystic breast disease with great rates of healing. Iodine deficiency is not only associated with fibrocystic breast disease, but also higher rates of breast cancer.

In a most significant study called the Iodine Project, done from 1997 through 2005, Dr. Guy Abraham, Dr. David Brownstein, and Dr. Jorge Flechas followed 4,000 patients and administered 12.5 to 100 milligrams daily, with 100 milligrams administered to diabetics primarily, because low thyroid function is also associated with Type 2 diabetes. They had positive results with only three adverse reactions out of 4,000 people (possibly allergic reactions to the binding agents, excipients, fillers, preservatives and/or synthetics commonly found in tablets, capsules and even liquids as opposed to the bioavailable form of iodine itself). This research group theorized that because in Japan the average intake was 13.8 milligrams, and Japan had significantly less breast and prostate cancer and better health and longevity than in the US, that higher doses of iodine could be safely used. In this 7–year study, they observed reversed fibrocystic breast disease, decreased insulin requirements in diabetics, significantly less need for medication for hypothyroidism, resolution for fibromyalgia, and also resolution of migraine headaches. In the study by Dr. Abraham, et al, the iodine ranges were



somewhere between 12.5 and 100 milligrams (100,000 micrograms) daily and were considered safe dosages. This is exponentially greater than Dr. Mercola's recommendation.

From a worldwide perspective, the current level of iodine deficiency is pandemic. Over one fifth of the global population (1.5 billion people) is living on iodine deficient soils and are subject to significant iodine deficiency. According to the WHO, 72% of the global population is iodine deficient. According to the more recent Dr. Abraham, et al, study cited, 96% of the U.S. population is iodine deficient. This is a significant problem with significant consequences, as iodine deficiency is among the top two causes of mental retardation. Associated with this increased iodine deficiency is a 690% increase in cretinism, mental retardation, and ADHD in the last several decades.

From a larger physiological perspective, it is important to realize that the thyroid is only one gland of many glands and tissues that needs iodine. Other glands/organs/systems with high iodine uptake are the breasts, ovaries, cervix, blood, lymph, bones, gastric mucosal, salivary, adrenal, prostate, colon, thymus, lungs, bladder, kidney, and skin. In perspective, the thyroid holds 50 milligrams of iodine, the breasts hold 200 milligrams, the skin holds 400 milligrams of iodine, and the whole body holds 2000 milligrams, and possibly much more. Iodine is found and used in every hormonal receptor in the body.

There are so many important functions of iodine that it is hard to put them into proper order of importance. The implications of iodine sufficiency go far beyond the levels necessary to avoid cretinism, brain damage, and goiter; and based on the previous cited studies, it is possible that the FDA's recommended dosage may not even give the minimal protection.

## **These important iodine functions include:**

### **1) Iodine helps synthesize thyroid hormones and prevents both hypo-- and hyperthyroidism.**

There is little awareness of the importance of iodine in the synthesis of thyroid hormones, particularly T3 and T4. This is because in 1949 physicians stopped using tinctures of iodine, and in 1973 physicians stopped using the basal body temperature, which still remains the gold standard test for diagnosing hypothyroidism (97.6 --- 98.2 is normal). In addition, hardly any physicians use the iodine loading test to determine iodine deficiency. Furthermore, this is the area where people are concerned with the suppression of thyroid function. Thyroid hormones control metabolism, temperature, heart rate, glucose consumption, and even blood lipids.<sup>8 9 10</sup> Iodine also helps to regulate cortisol. It improves immune function.<sup>11 12</sup>

### **2) Iodine sufficiency reverses hypo--- and hyperthyroidism.**

Obesity or emaciation (hypothyroidism and hyperthyroidism, respectively) both may be caused by thyroid issues, which iodine may treat, prevent and even reverse. The early 1900s study conducted by Dr. Marine proved reversal of goiter, a condition associated with both hypo--- and hyperthyroidism. Fibromyalgia is another problem stemming from iodine deficiency, as is chronic fatigue.

From a systemic holistic perspective, adequate iodine is crucial for our health. It is the universal health mineral. Its role goes far beyond the less than 400 micrograms used to prevent cretinism and goiter. Its



many important roles also give us a clue as to the seriousness of the 50% increase in iodine deficiency in the last 30 years, including the 96% of Americans who are presently iodine deficient. This is why today, more than ever before, there is a real need to supplement with iodine with holistically adequate levels.

More recent “bogus” scares about iodine use have made things even worse for iodine sufficiency. When the Wolff---Chaikoff unsubstantiated and unreplicated theoretical data resurfaced in 1969, it created a media scare without substance, and people began removing iodine from bakery bread (1 slice used to supply 100 micrograms of iodine) and replaced it with bromine, which, as previously stated, is one of the top twelve most harmful toxins and carcinogens on the planet. Bromine forces iodine from the system by competitive inhibition. Additionally, the serious I-131 exposure from Chernobyl and Fukushima, the radiation from medical procedures, and the ethylene dibromide from chemtrails all force iodine out of the body. Perchlorate from rocket fuel and fluoridated and chloridated water also force iodine out of the system, with a single perchlorate displacing 100 iodine atoms compared to a 1:1 ratio of simple chlorine displacement of iodine.<sup>13</sup> These toxic halogen pollutants have increased over time, and iodine deficiency has become more seriously pronounced in today’s population. Iodine, when activated in its bioavailable form (atomic singlet iodine: I---), is used first to detoxify the system; so there is not enough iodine initially, especially with low doses, to support the thyroid hormone function, unless adequate iodine is added into the system. One can see there are a number of modern stresses contributing to this widespread iodine depletion.

There is a suggestion about the possibility of excess iodine, which is that there may be a transient (26---40 hours) hypothyroidism as described by Dr. Brownstein in his book *Iodine: Why You Need It. Why You Can’t Live Without It*.<sup>14</sup>

However, a one to two---day transient decrease in thyroid function is physiologically irrelevant in view of the bigger holistic picture. There is also an increase in TSH (thyroid stimulating hormone) with increased iodine, which may last up to six months. This is not a sign of hypothyroidism. This is related to the fact that the whole body is deficient in iodine, and TSH stimulates the production of sodium--- iodide---symporter (NIS). Without adequate NIS, iodine cannot enter the cells and be utilized. NIS is a carrier system into all the cells, and when this system becomes deficient, the whole body becomes deficient. The key practical reality is that the people who increase their iodine intake do not have signs of hypothyroidism (such as fatigue, hair loss, headaches, weight gain, and dry skin), and they maintain normal T3 and T4 levels. Deficiency of iodine may also contribute to low stomach acid and decreased ability to absorb B12 and calcium.

If one is only diagnosing hypothyroidism based on TSH scores (as most allopaths do), one may become confused. Clinically if one looks at these previously mentioned factors, it is clear that TSH levels may rise as high as 5 to 30 units per liter, but, again, that should not be confused with actual hypothyroidism. There are subtle things that can be mistaken for hypothyroidism, such as a healing crisis mistaken for a problem with iodine. Drs. Abraham and Brownstein in their work with 4,000 people were only able to identify 3 of 4,000 people who had a negative allergic response to the iodine. People do not become allergic to iodine per se. According to Dr. Flechas, people “allegedly” allergic to iodine such as the protein-bound iodine found in seafood are more likely allergic to the toxic seafood rather than to the iodine itself. The same is so for iodine supplements such as molecule---, compound---, or complex---bound iodine in which people are more likely allergic to the binding agents, excipients, fillers, preservatives and/or synthetics commonly found in tablets, capsules, and

even liquids instead of iodine's bioavailable form. Such reactions are even less likely with singlet or unbound iodine. Actually, iodine can help eliminate food allergies according to Dr. Derry (p. 15 from *Breast Cancer and Iodine*, by David M. Derry, MD, PhD, copyright 2001).

### **3) Iodine supports apoptosis.**

From a broader perspective, one of iodine's major functions, in conjunction with oxygen, is to support the process of apoptosis (programmed cell death of unhealthy cells), to protect against cancer and facilitate youthing. This is particularly relevant in preventing cancer and aging. Iodine is essential for apoptosis. For example, adequate iodine plays a role in protecting against stomach cancer. (People living in iodine deficient areas of the world have higher rates of stomach cancer.<sup>15</sup>) This makes the point that not only the thyroid gland but also breast tissue and the digestive tract are high in iodine.<sup>16</sup> It is no accident that iodine sufficiency is associated with lower rates of cancer in these high iodine tissues.

### **4) Iodine activates hormone receptors and helps prevent certain forms of cancer.**

For the activation of hormone receptors (as are present in all the body's cells), the optimum intake of iodine is two orders of magnitude greater than that necessary to prevent goiter. According to Dr. David Derry from Canada, there are active thyroid hormone sites in all the mitochondria, and when there is enough iodine to activate the thyroid, we increase ATP production in all cells as well. This is important because cancer cells have 200---300 mitochondria per cell, whereas healthy cells have 3,000---5,000 mitochondria per cell, yielding significantly more energy and protection from cancer. According to Dr. Brownstein, the primary reason for mitochondrial failure is iodine deficiency. The primary cause of cancer, from an energetic perspective, is mitochondrial failure. It is clear that the prevention of cancer, particularly cancer of the breasts, thyroid, ovaries, stomach, and esophagus, is increased with iodine sufficiency.<sup>17</sup> Iodine serves to prevent lipid peroxidation, especially in breast cancer. Deficiencies of iodine also increase the incidences of breast cancer.<sup>18,19, 20, 21, 22</sup> In a study of 60 cancer patients given an iodine test, all were found to be seriously deficient in bodily stores of iodine and many had excessive bromine. Women with iodine deficiency have been found to have three times greater incidence of breast cancer. High intake of iodine is associated with a lower risk of breast cancer. In the treatment of prostate and breast cancer, it is reported in Dr. Sircus' book that Dr. Brownstein uses between 200 and 300 milligrams of iodine daily, with higher doses for more serious and difficult diseases. In perspective, this seemingly "high" dose is still far lower than what the 11<sup>th</sup> edition of the 1910---1911 Encyclopedia Britannica cites as the "usual" doses of 300---900 milligrams (300,000 to 900,000 micrograms!) of iodine daily.

### **5) Iodine protects ATP function and enhances ATP production.**

Another important aspect of iodine is its ability to protect ATP (the biological units of energy). Sufficient iodine in all tissues and cells helps to produce a healthy 36 ATP's through the Krebs cycle, which has profound implications for all levels of function including brain function. When we are low in iodine, we tend to move into glycolysis, which only produces 2 ATP's, bypassing the normal Krebs cycle, and so bypassing the mitochondria altogether. This significantly lower ATP production (18 times

less!) greatly contributes to low vital life force and disease.

## **6) Iodine prevents fibrocystic breast disease.**

In both women and laboratory animal studies, there is a relationship between low iodine and increased fibrocystic breast disease. Fibrocystic breast disease has shown significant improvement with the intake of 3-6 milligrams of iodine daily, with 65% having improvement.<sup>23</sup>

## **7) Iodine decreases insulin needs in diabetics.**

Dr. Brownstein's work found that iodine helps decrease insulin needs in diabetics when they use 50--100 milligrams (50,000 to 100,000 micrograms!) daily.

## **8) Iodine helps support protein synthesis.**

Iodine is essential in thyroid hormone synthesis. If deficient, protein synthesis is disturbed. Thyroid hormone has two effects: increased protein synthesis and increased oxygen consumption. Thyroid hormones are essential for life as they activate key biochemical reactions including protein synthesis, enzymatic activities, and function of target organs such as development of brain, heart, muscles, pituitary, and kidneys. Therefore iodine is important in the development of the fetus. Thyroid hormone regulates mitochondrial protein synthesis. Iodine deficiency causes hormone dysfunction in all bodily hormones.<sup>24 25</sup>

This coincides with the 1954 Drs. Eartly and LeBlond study in *Endocrinology* showing all pituitary functions are mediated by T4 suggesting the thyroid and not the pituitary is the true master gland.

## **9) Iodine deficiency is a global health threat.**

Iodine deficiency, in the general population, yields 1-10% cretinism, 5-30% brain damage, and 30--70% loss of energy. In this holistic context, iodine deficiency is a major threat to global health. Iodine deficiency has increased fourfold in the last 40 years and is considered the most common and yet preventable cause of brain damage throughout the world. Low thyroid symptoms include puffy skin, hoarse voice, sparse and coarse hair, impaired mental function, dry and scaly skin, weight gain, slow physical functioning, and slow mental functioning. If a pregnant woman is deficient, the growth and development of the fetus is at risk of increased rates of mental retardation, dyslexia, ADHD, hyperactivity, short stature, decreased child survival, miscarriages, still births, and apathetic children with lowered capacity for movement and speech. Those with the highest and lowest TSH also have increased Alzheimer's disease. There are 59 diseases associated with a dysfunctional thyroid and 52 million people in the U.S. with thyroid disease, which may be a gross underestimation because it is not based on the gold standard of underarm temperature. Another fact in the total population picture is that estimates show that more people have died from iodine deficiency than died in both World Wars. This clearly illustrates the importance of iodine for brain development and overall health. Iodine deficiency also increases risk of death from thyroid and breast cancer. In studies before Fukushima, Japanese women had about 1/3 the breast cancer rate as American women and had 50 times greater iodine intake than American women. Dietary iodine has been proven to reduce the size of both benign and malignant breast tumors.<sup>26 27 28</sup> About 5 milligrams daily with no toxic effect has been found to

be effective in the treatment.<sup>29 30 31</sup>

## **10) Iodine destroys pathogens, molds, fungi, parasites, and malaria.**

Another major iodine role to consider—as we necessarily near the end of antibiotic use with the evolution of resistant microorganisms, hospital superbugs, and powerful new strains of tuberculosis and malaria—is iodine's power as a negatively charged substance to destroy all pathogens, molds, fungi, and parasites, including malaria. Iodine can be used both to effectively treat and prevent malaria. It is the most powerful antibiotic we have, and while it is not patentable, it can help save the world from all these uncontrolled resistant infections. It is also said to be effective in treating tuberculosis. This effect was mentioned as early as June 1<sup>st</sup>, 1905 in the NY Times. As more antibiotic resistant bacteria emerge, iodine may become the “new” lifesaver on many levels.

## **11) Iodine supports immune function.**

Iodine plays a role in the physiology of inflammatory responses. This is important in the immune system. Iodine increases the movement of granulocytes into areas of inflammation and improves the phagocytosis of bacteria by granulocytes and the ability of granulocytes to kill bacteria. Since all disease is associated with inflammatory response, iodine becomes key for youthening the body.

## **12) Iodine eliminates toxic halogens from the body (including radioactive I-131).**

Another major health protection role iodine plays is to increase the release of toxic halogens (fluorine, bromine, and chlorine) from the cellular systems. These toxic halogens negatively impact all our organs including thyroid function. With the first dose of iodine given, we have a 78% increase of bromine discharge. Bromine is recognized as one of the top twelve most harmful toxins on earth. (Bromine is a known carcinogen, which is outlawed in China, Europe, and much of the world except in the U.S.) Bromine is found in most bakery goods in the U.S. It is also found in pesticide--laden produce, mattresses, cell phones, fire retardants, and hot tubs. We also see a 50% increased discharge of chlorine when iodine is taken. Iodine also chelates mercury, lead, and cadmium. I would hypothesize that bioavailable, active iodine chelates all positive charged toxins, such as pesticides and herbicides, in general because of its negative charge (I<sup>-</sup>). Due to its chelating powers I suggest one start taking iodine at a slower rate because of this detox effect. It is important to start with a low dose and build up, while checking the urine for discharged toxins. These healing detox symptoms should not be confused with iodine toxicity. This is roughly equivalent to focusing on the healing crisis that sometimes emerges when one transitions into live foods or fasting and to blame the diet or the fasts rather than treating the healing crisis as a healthy detox activated by the live foods or fast. To stop iodine supplementation in both these scenarios is premature and derails the healing process. It is important to look beyond any healing crisis to the wellness that awaits on the other side of this detoxification.

Fluoride is one of the toxic halogens associated with cancer and known to accumulate in the thyroid and the pineal gland. Fluoride is forced out by iodine sufficiency or saturation. The pineal gland is important for producing serotonin and melatonin. Fluoride is said to calcify the pineal gland. Iodine, because of its similar outer electron shell, in higher saturation levels, can bombard and push the fluoride out of the thyroid and pineal as well as other tissues. The pineal gland is one area, like the thyroid, where fluoride is highly concentrated. In the pineal gland, fluoride interferes with the

secretion of melatonin. As the iodine flushes out the fluoride it enhances the function of the pineal gland. When fluoride is pushed out of the thyroid and pineal gland, there is an increase in melatonin and sexual maturation, better calcium metabolism, better thyroid function, post---menopausal function, and less cancer and fibrocystic breast disease.

One of the most critical toxic health issues we have today is the exposure of radioactive I-131 from Fukushima. We still have continued and increasing exposure from Fukushima, and unlike Chernobyl, Fukushima has not been sealed off. When the thyroid, as well as the whole body, is filled with healthy iodine (I-127), again, because of I-127's similar outer electron shell, in higher saturation levels, it can provide significant protection of vulnerable receptor sites from uptake of radioactive I-131 and also push out radioactive I-131. This is known as competitive inhibition. This explains why Chernobyl survivors that took iodine, even some who took it after the nuclear fallout, did escape thyroid cancer. The point is that most allopaths do not understand that I-127 may actually displace I-131. Some clinical examples suggest that I-127 can indeed displace radioactive I-131.

Iodine, as previously expressed, kills viruses, bacteria, and fungi, and forces the halogens and other toxins out of the system. When toxins are released and parasites, bacteria, viruses, and protozoans are killed, one may have a Herxheimer reaction, which may lead to a healing crisis. We may also have a healing crisis reaction from these toxins leaving the system. However, I should point out that while no one has ever died from iodine overdose or allergic reaction, each year 103,000 people die from properly prescribed allopathic drugs. The allopathic community's iodine phobia is ironic in this light.

### **13) Iodine regulates estrogen production in the ovaries.**

Healthy iodine levels also seem to be important in regulating estrogen balance. The three main estrogens (estrone (E1), estradiol (E2), and estriol (E3)) come into balance with iodine sufficiency. Iodine has been shown to bring a healthy balance between these hormones in both men and women. The ovaries, testes, and adrenals all produce estrogen. According to Dr. Brownstein, iodine governs estrogen production by the ovaries. It is interesting to note that estrogen and progesterone compete for the same receptor site and that infertility and miscarriage are both associated with estrogen dominance and progesterone deficiency, underneath which lies iodine deficiency. The World Health Organization has related iodine deficiency to decreased fertility and increased perinatal and infant death.<sup>32</sup>

According to the International Council for the Control of Iodine Deficiency (ICCID), "noticeable iodine deficiency disorders are problem pregnancies that result in miscarriages, stillbirths, and low birth weight infants who have lower rates of survival."<sup>33</sup> Besides solving problems with the reproductive organs, iodine seems to be key in solving so many of today's diseases related to estrogen dominance.

### **14) Iodine is anti-mucolytic (meaning it reduces mucus catarrh).**

Iodine helps decrease mucus catarrh in both the intestines and the sinus. Iodine effectively cleanses and detoxifies lymph, as lymph is a carrier of iodine. Most Americans are laden with parasites, bacteria, viruses, and toxins in their lymph because they are iodine deficient. Dr. Mercola cites the lymph carries up to 100 times the parasites and toxins as carried in the blood. The lymph is the "vacuum



cleaner" of the blood, and the "vacuum bag" is full in today's world. So one can see why a healing crisis (a Herxheimer's reaction) after iodine intake may occur today more rapidly than back in the early 1900's, before the mass pollution of toxic halogens. In terms of treating excess mucus and chronic lung diseases, doses of iodine up to six times higher than the FDA recommendations have been safely administered for months. Iodine sufficiency helps to remedy this lung issue. At the turn of the Twentieth Century, gram amounts of iodine were used for chronic lung disease.

### **15) Iodine neutralizes hydroxyl ions and hydrates the cells.**

Iodine helps to eliminate oxidative stress because it neutralizes hydroxyl ions (one of the most potent free radicals); so it has a particular antioxidant effect. According to Dr. Donald Miller, MD, hydroxyl ions never have a chance to form when iodine is present with active oxygen; rather, H<sub>2</sub>O is created.<sup>34</sup> This is particularly positive considering most disease is related to chronic dehydration. According to Dr. Brownstein, iodine is a more powerful antioxidant than Vitamin C, Vitamin E and phosphatidyl choline. According to Sebastiano Venturi (in *Evolution of Dietary Antioxidants – The Role of Iodine*), iodine is an important antioxidant that has antitumor and antisclerotic activity. When iodine is used as a supplement, antioxidant activity increases and immune system function increases.

### **16) Iodine makes us smarter.**

As previously mentioned, iodine helps with mental functioning. Low iodine is associated with low IQ's with a difference of up to 13.5 points as cited in the Bleichrodt study of 1994 in children. However, iodine deficiency is also associated with mental functioning in adults, because iodine not only chelates lead, but, according to Dr. Jorge Flechas, iodine prevents lead from lodging in the body in the first place. This occurs if enough iodine is supplemented, as discussed above, in order to push out fluoride, a culprit responsible for lead accumulation in the body. Low thyroid function decreases brain circulation, which slows intellectual function. Dr. Steven Langer in the book *Solved: The Riddle of Illness*, points out that low thyroid function is associated with cognitive impairment, memory loss, depression, slowness of mind, anxiety, suicidal tendencies, and a variety of psychiatric disorders. Bleichrodt, in 1994, did a meta-analysis looking at 17 studies showing iodine sufficiency increases IQ by 13.5 points in children.<sup>35</sup> High levels of iodine are found in the brain, especially with the parts associated with Parkinson's disease, such as the substantia nigra. In terms of the brain, Dr. S. Cunnane suggests that iodine is the primary brain-selective nutrient in human brain evolution. Iodine deficiency is the main cause of decreased intellect. Additional research has shown that parasites in the gut eat up a great deal of serotonin, 95% of which is produced in the intestines. When parasites are destroyed with iodine, there is an increase in serotonin, which is excellent for mental functioning.

### **17) Iodine prevents heart disease.**

The thyroid regulates heart rate. Dr. Broda Barnes, the father of the pro-thyroid awareness movement, demonstrated in research with 1,000 people that the use of thyroid glandular (high in iodine) showed there was an extremely significant reversal and prevention of heart disease outperforming on so many levels results of the Framingham Study that cardiologists tend to reference today. Hypothyroidism leads to heart disease. The treatment of using thyroid glandular (again, high in iodine) actually prevents heart disease and points to the importance of iodine itself

in preventing heart disease. Associated with this scientific understanding is that all fats deplete the total body load of iodine, according to Dr. Derry. We also know that hypo--- and hyperthyroidism creates low---density lipoproteins (LDH) and increases total cholesterol and raises risk of atherosclerosis.<sup>36 37 38</sup> Hypothyroidism, which is a result of low iodine, weakens the heart muscle causing cardiac arrhythmia.<sup>39 40 41</sup> Iodine deficiency has indeed been associated with increased cardiovascular disease.

This results in decreased myocardial contractility and increased peripheral vascular resistance as well as disorders in lipid metabolism.

### **18) Iodine is needed with the use of cordless phones, cell phones and now smart meters to prevent hypothyroidism.**

A recent study published in the International Journal of Radiation Biology, Vol. 86, No. 12, December 2010, pp.1106---1116, shows that pulsed 900MHz radiation, a frequency range emitted by cordless phones, cell phones, and now the new "smart" meters being quickly deployed throughout the world by utility companies, induces hypothyroidism. Hypothyroid is also considered a precursor to, and a common condition also associated with, cancer, diabetes, and heart disease, which are all major killers today.

### **19) Iodine supports pregnancy (as the fetus undergoes more apoptosis than any other developmental stage).**

As mentioned, iodine supports apoptosis; hence, pregnant women need more iodine because the fetus goes through more apoptosis than any other life phase. Even the FDA suggests 47% more iodine for pregnant women and 93% more for lactating women. This explains the horrendous infant mortality rate/birth defects documented in Chernobyl and what is now beginning in Fukushima due to global spreading of the manmade I---131 radioactive isotope of iodine rapidly displacing the I---127 stable isotope of iodine. Infant mortality rates increased 900% in Boston, Massachusetts three months after Chernobyl. Likewise, Joseph Mangano of the Radiation and Public Health Project had an article published in International Journal of Health Services in December of 2011, in which the 48% infant mortality rate in Philadelphia, Pennsylvania was based on gathered U.S. Centers for Disease Control data ten weeks after Fukushima.<sup>42</sup>

### **20) High doses of iodine may be used to reverse certain diseases.**

At 6 grams daily (which is 6 million micrograms/day or 6,000 milligrams/day!), a much higher dose, iodine has been used to cure syphilis, skin lesions, and chronic lung disease. In perspective, microgram levels prevent and cure cretinism and goiter, milligram levels help prevent and cure many things as already stated such as cancer, fibrocystic breast disease, and Alzheimer's, and gram levels have been used to treat syphilis, skin lesions, and chronic lung disease.

### **21) High doses of iodine may be used for wounds, bedsores, inflammatory and traumatic pain, and restoration of hair growth when applied topically.**

Iodine has also been used in gram amounts for wound care, bedsores and pain. Iodine has many other



uses, including relieving headaches and even restoring hair growth. The science of trichology has known for decades the importance of applying iodine to the scalp to restore proper follicle function and hair growth. Iodine is also used to eliminate toenail fungus.

## **22) Iodine helps in the diminishing of tissue scarring, cheloid formations, and Dupuytren's and Peyronie's contractures, which are hyper-scarring conditions.**

## **23) Iodine supports spiritual development.**

I first wrote extensively about the chakra system in 1986 in my book *Spiritual Nutrition and the Rainbow Diet*. The chakra system is a subtle energy system that has been described for thousands of years in spiritual traditions. In Sanskrit, the word *chakra* means "wheel". In the Bible, St. John refers to these centers as the "seven seals on the back of the Book of Life." In early Christianity they were often referred to as the "seven churches". The Kabbalists refer to these centers as "the seven centers in the soul of man."

The chakra system has been described by Western clairvoyants and Eastern yogis for centuries. In the late 1960's and early '70's, Dr. Hiroshi Motoyama, Director of the Institute for Religion and Psychology, a yoga expert and a scientist considered by many to be one of the leading researchers in the area of chakras, has done some important work documenting the physical reality of chakras.<sup>43</sup> More recently, medical doctors and other researchers have begun to explore the existence and function of the chakras, such as the research done by Professor Emeritus Valerie Hunt at UCLA.<sup>44</sup> Hunt was a professor of Physiological Science from 1948--1981 at UCLA, and is presently the director of the Bioenergy Fields Laboratory. In 1973, the physician W. Brugh Joy discovered these energy centers spontaneously. He found that when he held his hands over certain areas of a patient's body, there were areas of increased heat energy. Mapping these areas, he realized that they were approximately the same as the yoga descriptions of the chakra locations.<sup>45</sup> Lawrence Bagley, M.D., in the 1984 issue of the *American Journal of Acupuncture*, describes how by using the Nogier pulse he was able to determine the location, size, shape, and rotational direction of the chakra system. My own experience with detecting the physical existence of the chakra system began in 1976 when I was exploring the possible relationship between a person's mental state and the chakra system.<sup>46</sup>

Based on the limited research, and my personal research as well, it is reasonable to hypothesize the existence of a chakra system as both a subtle psycho--physical system linked to the neuro--endocrine complexes in their prospective locations in the body, as well as subtle psycho--spiritual centers of consciousness.

Iodine energizes the thyroid gland (associated with the 5<sup>th</sup> chakra), which I believe to be a spiritual--energetic bridge between the heart (associated with the 4<sup>th</sup> chakra) and the pineal and pituitary glands (associated with the 6<sup>th</sup> and 7<sup>th</sup> chakras). In this spiritual way it can be considered the master gland rather than the pituitary as the 1954 Drs. Eartly's and LeBlond's study found in the physical way.<sup>47</sup> The thyroid in this context is a metaphorical bridge between the heavens (higher chakras) and the earth (lower chakras). Adequate iodine is the critical nutrient that activates and sustains this physical and energetic chakra bridge. It is needed for the chakra system to be optimally functional.

## What then is a reasonable and safe dose in a holistic context?

In 1911, 900 milligrams (900,000 micrograms!) daily were considered usual and safe doses. In 1950 the Japanese had 100 times more iodine in their diet than Americans. In 2001 they had 202 times more iodine than Americans and were using up to 13.8 milligrams daily as opposed to the average U.S. intake of 425 micrograms daily. Unfortunately there has been no real study, ever, about what is the optimal safe dosage of iodine. But, again, no one has ever died from iodine overdose or allergic reactions. It is safe to suggest that at least the guidelines given by Drs. Abraham and Brownstein for the use of 12---50 milligrams of iodine daily, for overall iodine sufficiency and wellbeing, and up to 100 milligrams/day for diabetics is reasonable. My prudent suggestion is that as we follow these ideas, it is important to move forward carefully as we treat this pandemic level of 72% iodine deficiency in the world and a shocking 96% deficiency in Americans, affecting the minds of billions of people. I strongly recommend that people reevaluate the amounts of iodine people consume. I recommend that children under 6 years of age take half the adult dose, children 0---2 years take ¼ the adult dose, pregnant women take 47% more than the adult dose (current FDA ratio), and lactating women take 93% more than the adult dose (current FDA ratio), as iodine is very important for brain development, from a holistic perspective. In the larger humanitarian context the risk to benefit ratio of these recommended doses is extremely safe for healing the planetary population and ourselves.

## References

- <sup>1</sup> Wolff J and Chaikoff IL. "Plasma inorganic iodide as a homeo--- static regulator of thyroid function." *J Biol Chem*, 1948; 174:555---564.
- <sup>2</sup> Sircus, Mark. *Iodine: Bringing back the Universal Medicine* International Medical Veritas Association; Second edition (April 3, 2011).
- <sup>3</sup> Patrick L. Iodine: deficiency and therapeutic considerations. *Altern Med Rev*. 2008 Jun; 13(2): 116---27.
- <sup>4</sup> Available at: <http://ipi.oregonstate.edu/infocenter/minerals/iodine/>. Accessed April 20, 2012.
- <sup>5</sup> Available at: <http://emedicine.medscape.com/article/122714---overview>. Accessed April 20, 2012.
- <sup>6</sup> Patrick L. Iodine: deficiency and therapeutic considerations. *Altern Med Rev*. 2008 Jun; 13(2):116---27.
- <sup>7</sup> Zhang, L. M. (2003, August 15). Nonradioactive iodide effectively induces apoptosis in genetically modified lung cancer cells. *Cancer Research*, 63:5065---5072.
- <sup>8</sup> Canturk Z, Cetinarslan B, Tarkun I, Canturk NZ, Ozden M. Lipid profile and lipoprotein (a) as a risk factor for cardiovascular disease in women with subclinical hypothyroidism. *Endocr Res*. 2003 Aug;29(3):307---16.
- <sup>9</sup> Iqbal A, Jorde R, Figenschau Y. Serum lipid levels in relation to serum thyroid---stimulating hormone and the effect of thyroxine treatment on serum lipid levels in subjects with subclinical hypothyroidism: the Tromso Study. *J Intern Med*. 2006 Jul;260(1):53---61.
- <sup>10</sup> Fazio S, Palmieri EA, Lombardi G, Biondi B. Effects of thyroid hormone on the cardiovascular system. *Recent Prog Horm Res*. 2004;59:31---50.
- <sup>11</sup> Nolan LA, Windle RJ, Wood SA, et al. Chronic iodine deprivation attenuates stress---induced and diurnal variation in corticosterone secretion in female Wistar rats. *J Neuroendocrinol*. 2000 Dec;12(12):1149---59.

- 12 Stolc V. Stimulation of iodoproteins and thyroxine formation in human leukocytes by phagocytosis. *Biochem Biophys Res Commun*. 1971 Oct 1;45(1):159---66.
- 13 Brownstein, D. (2006). *Iodine. Why you need it; Why you can't live without it*. West Bloomfield: Medical Alternatives Press.
- 14 Brownstein, David. *Iodine: Why You Need It – Why You Can't Live Without It*. Medical Alternatives Press. West Bloomfield, MI, 2009.
- 15 Abnet CC, Fan JH, Kamangar F, et al. Self---reported goiter is associated with a significantly increased risk of gastric noncardia adenocarcinoma in a large population---based Chinese cohort. *Int J Cancer*. 2006 Sep 15;119(6): 1508---10.
- 16 Venturi S, Donati FM, Venturi A, Venturi M, Grossi L, Guidi A. Role of iodine in evolution and carcinogenesis of thyroid, breast, and stomach. *Adv Clin Path*. 2000 Jan;4(1): 11---7.
- 17 Verheesen RH, Schweitzer CM. Iodine deficiency, more than cretinism and goiter. *Med Hypotheses*. 2008 Nov;71(5): 645---8.
- 18 Patrick L. Iodine: deficiency and therapeutic considerations. *Altern Med Rev*. 2008 Jun; 13(2):116---27.
- 19 Venturi S, Donati FM, Venturi A, Venturi M, Grossi L, Guidi A. Role of iodine in evolution and carcinogenesis of thyroid, breast and stomach. *Adv Clin Path*. 2000 Jan;4(1):11---7.
- 20 Venturi S. Is there a role for iodine in breast diseases? *Breast*. 2001 Oct;10(5):379---82.
- 21 Stadel BV. Dietary iodine and risk of breast, endometrial, and ovarian cancer. *Lancet*. 1976 Apr 24;1(7965):890---1.
- 22 Many MC, Papadopolos C, Martin I, et al. Iodine induced cell damage in mouse hyperplastic thyroid is associated with lipid peroxidation. In: Gordon A, Groos J, Hennemann G, eds. *Progress in Thyroid Research*. New York, NY: Routledge; 1991:213---5.
- 23 Ghent WR, Eskin BA, Low DA, Hill LP. Iodine replacement in fibrocystic disease of the breast. *Can J Surg*. 1993 Oct;36(5):453---60.
- 24 Nolan LA, Windle RJ, Wood SA, et al. Chronic iodine deprivation attenuates stress---induced and diurnal variation in corticosterone secretion in female Wistar rats. *J Neuroendocrinol*. 2000 Dec; 12(12) :1149---59.
- 25 Stolc V. Stimulation of iodoproteins and thyroxine formation in human leukocytes by phagocytosis. *Biochem Biophys Res Commun*. 1971 Oct 1;45(1):159---66.
- 26 Aceves C, Anguiano B, Delgado G. Is iodine a gatekeeper of the integrity of the mammary gland? *J Mammary Gland Biol Neoplasia*. 2005 Apr;10(2):189---96.
- 27 Ziegler RG, Hoover RN, Pike MC, et al. Migration patterns and breast cancer risk in Asian---American women. *J Natl Cancer Inst*. 1993 Nov 17;85(22):1819---27.
- 28 Garcia---Solis P, Alfaro Y, Anguiano B, et al. Inhibition of N---methyl iodine (I<sub>2</sub>) but not by iodide (I<sup>-</sup>) treatment Evidence that I<sub>2</sub> prevents cancer promotion. *Mol Cell Endocrinol*. 2005 May 31;236(1---2):49---57.
- 29 Patrick L. Iodine: deficiency and therapeutic considerations. *Altern Med Rev*. 2008 Jun;13(2):116---27
- 30 Aceves C, Anguiano B, Delgado G. Is iodine a gatekeeper of the integrity of the mammary gland? *J Mammary Gland Biol Neoplasia*. 2005 Apr;10(2):189---27.
- 31 Garcia---Solis P, Alfaro Y, Anguiano B, et al. Inhibition of N---methyl iodine (I<sub>2</sub>) but not by iodide (I<sup>-</sup>) treatment Evidence that I<sub>2</sub> prevents cancer promotion. *Mol Cell Endocrinol*. 2005 May 31;236(1---2):49---57.
- 32 Available at: <http://www.euro.who.int/en/what---we---do/health---topics/disease---prevention/nutrition/activities/technical---support---to---member---states/micronutrient---deficiencies>
- 33 Available at: <http://www.iccid.org/pages/technical---resources/advocacy---communication/key---messages.php>
- 34 Miller, D.W. Extrathyroidal Benefits of Iodine. *Journal of American Physicians and Surgeons*, 11(4):106, (2006, Winter).

- 35 Bleichrodt, N. (1994). A metaanalysis of research on iodine and its relationship to cognitive development.
- 36 Canturk Z, Cetinarslan B, Tarkun I, Canturk NZ, Ozden M. Lipid profile and lipoprotein (a) as a risk factor for cardiovascular disease in women with subclinical hypothyroidism. *Endocr Res.* 2003 Aug;29(3):307---16.
- 37 Iqbal A, Jorde R, Figenschau Y. Serum lipid levels in relation to serum thyroid---stimulating hormone and the effect of thyroxine treatment on serum lipid levels in subjects with subclinical hypothyroidsim: the Tromso Study. *J Intern Med.* 2006 Jul;260(1):53---61.
- 38 Rizos CV, Elisaf MS, Liberopoulos EN. Effects of thyroid dysfunction on lipid profile. *Open Cardiovasc Med J.* 2011;5:76---84.
- 39 Fazio S, Palmieri EA, Lombardi G, Biondi B. Effects of thyroid hormone on the cardiovascular system. *Recent Prog Horm Res.* 2004;59:31---50.
- 40 Kahaly GJ. Cardiovascular and atherogenic aspects of subclinical hypothyroidism. *Thyroid.* 2000 Aug;10(8):665---79.
- 41 Molnar I, Magyari M, Stief L. Iodine deficiency in cardiovascular diseases. *Orv Hetil.* 1998 Aug 30;139(35):2071---3.
- 42 Go to: [http://www.radiation.org/reading/pubs/HS42\\_1F.pdf](http://www.radiation.org/reading/pubs/HS42_1F.pdf)
- 43 Motoyama, Hiroshi. *Theories of the Chakras: Bridge to Higher Consciousness.* Madras, India/London, England: The Theosophical Publishing House, 1985.
- 44 Hunt, V.V. Electronic Evidence of Auras, Chakras in UCLA Study. *Brain/Mind Bulletin*, 3(9), 1978.
- 45 Joy, W. Brugh. *Joy's Way.* Los Angeles: J.P. Tarcher, Inc., 1979.
- 46 Cousens, Gabriel. *Spiritual Nutrition and the Rainbow Diet.* San Rafael, CA: Cassandra Press, 1986.
- 47 Eartly, H. (1954, March). Identification of the effects of thyroxine mediated by the hypophysis. *Endocrinology* 54(3): 249---271.

## **IODINE PREVENTS BREAST CANCER**

Source: by Mike Adams, the Health Ranger, NaturalNews Editor  
[http://www.naturalnews.com/027530\\_iodine\\_brst\\_cancer.html](http://www.naturalnews.com/027530_iodine_brst_cancer.html)

Breast cancer seems to be on everyone's mind these days: How do you detect it? Prevent it? Reverse it?

Fortunately, preventing breast cancer is easy, and iodine is one of the key nutritional strategies for accomplishing precisely that.

Here, we bring you an extremely informative collection of information about how iodine helps prevent breast cancer. You'll learn how it works, which different sources of iodine are available today, and which books to read to learn more.

Personally, I strongly recommend the books and website of Dr. David Brownstein (<http://www.drbrownstein.com>)

### **Iodine and breast cancer**

Big Pharma has no financial interest in looking at any natural product, including iodine. Q: Does iodine supplementation cause goiter? A: No. Iodine deficiency causes goiter, not iodine supplementation. Medical research has shown this for over 100 years. Q: Does iodine deficiency cause breast cancer? A:

Breast cancer is a multi-factorial illness. However, the evidence linking iodine deficiency to breast cancer is overwhelming. Iodine deficiency may not be the sole cause of the epidemic of breast cancer that is plaguing us today, but, it plays a very large role in this illness.

**- *Iodine: Why You Need It, Why You Can't Live Without It* by David Brownstein, M.D.**

The thyroid gland needs approximately 6mg/day of iodine for sufficiency. The breasts need at least 5mg of iodine; that leaves 2mg (13mg-11mg) of iodine for the rest of the body. This 2mg is still well above the RDA (14x the RDA) of 150mcg/day of iodine. Either way, this would explain why the RDA for iodine is inadequate and why it is necessary not only to get your iodine levels evaluated but, more importantly, to supplement with the correct amount and form of iodine. FINAL THOUGHTS The connection between iodine deficiency and breast cancer as well as fibrocystic breast disease is strong.

**- *Iodine: Why You Need It, Why You Can't Live Without It* by David Brownstein, M.D.**

Donnie Yance, a health care provider who works with many women diagnosed with breast cancer, believes that a genetic predisposition to a weak immune system is a very strong risk factor for breast cancer. Iodine and thyroid hormones (both natural and synthetic) generally reduce risk of breast cancer. Max Gerson, M.D., an acclaimed (and controversial) cancer specialist, believed that iodine was critical to the process of countering cancer. Some researchers speculate that the low rate of breast cancer in Japan is due to the iodine-rich diet.

**- *Breast Cancer? Breast Health! The Wise Woman Way* by Susun S. Weed**

At iodine sufficiency, the largest amounts of iodine are found in fat tissue and muscle (striated) tissue. If obesity is present, the body's need for iodine increases as the fat cells of the body would require more iodine. As previously mentioned, women's breasts are major sites for iodine storage. Maintaining adequate iodine levels is necessary to ensure an adequately functioning thyroid gland and normal breast architecture. I believe it will also lower the incidence of breast cancer and help women overcome breast cancer.

**- *Iodine: Why You Need It, Why You Can't Live Without It* by David Brownstein, M.D.**

Breast milk contains more iodine than formula milk and premature babies who are formula-fed may be at risk of deficiency. Iodine deficiency may play a role in fibrocystic breast disease. Hypothyroidism and iodine deficiency may also increase the risk of breast cancer, as a higher incidence of disease has been found in iodine-deficient areas. Good sources of iodine include vegetables grown in iodine-rich soil, kelp, onions, milk, milk products, salt water fish and seafood.

**- *The New Encyclopedia of Vitamins, Minerals, Supplements and Herbs* by Nicola Reavley**

Other than the thyroid, the highest concentration of iodine is found in women's breast tissue. When the level of iodine is low, the risk of acquiring breast cancer is greater, and as we're aware, the fluoride found in Prozac disrupts the iodine, reducing the iodine level. Also, women who acquire breast cancer normally have elevated estrogen and a low level of progesterone in their breast tissue as well. The natural progesterone keeps the estrogen levels in check, basically preventing the problem. And if you really want to prevent the problem, you should definitely avoid Paxil?

**- *Antidepressants, Antipsychotics, And Stimulants - Dangerous Drugs on Trial* by Dr David W Tanton, Ph.D.**

Excess iodine is excreted in the urine or the sweat, tears, and bile. There have been no reported cases of iodine toxicity from naturally occurring sources in food or water. The RDA of iodine is 150 mcg for an adult male. Iodine deficiency has been known to cause hypothyroidism. It has been associated with

increased cholesterol levels, atherosclerosis, fibrocystic breast disease, and breast cancer. Iodine deficiency can also be devastating to the developing brain, causing a mental retardation known as cretinism. Most developed countries, therefore, screen for hypothyroidism at birth.

**- Fundamentals of Naturopathic Endocrinology by Michael Friedman, ND**

But to get back to the topic of seaweed and breast cancer, there is more in seaweed than just iodine. Seaweed as a popular dietary component in Japan is a rich source of both iodine and selenium. Selenium acts synergistically with iodine. Selenium status may affect both thyroid hormone regulation and iodine availability.

**- You Don't Have to be Afraid of Cancer Anymore by Bill Sardi**

Women are particularly at risk due to environmental agents depleting iodine reserves and other agents exposing them to radioactive 1-131. After the thyroid gland, the distal portions of the human mammary glands are the heaviest users/concentrators of iodine in tissue. Iodine is readily incorporated into the tissues surrounding the mammary nipples and is essential for the maintenance of healthy functioning breast tissue. The radioactive decay of 1-131 in breast tissue may be a significant factor in the initiation and progression of both breast cancer and some types of breast nodules.

**- Fundamentals of Naturopathic Endocrinology by Michael Friedman, ND**

"There is growing evidence that Americans would have better health and a lower incidence of cancer and fibrocystic disease of the breast if they consumed more iodine," he says. Miller points out that Japanese consumption of iodine through seaweed is many, many times that of the United States, and that the health comparisons between the two countries are disturbing. He suggests that iodine consumption may be one of the many reasons why the incidence of breast cancer is so high in the United States and so low in Japan.

**- The Most Effective Natural Cures on Earth: The Surprising, Unbiased Truth about What Treatments Work and Why by Jonny Bowden, Ph.D., C.N.S.**

The foods richest in iodine are dulse and kelp. All sea vegetables basically contain all of the minerals of the sea, bringing us a good source of trace minerals in general. Iodine seems to work as a monitor, or controller, for calcium metabolism. It's one of the key minerals. Iodine has the highest frequency of all of Nature's essential minerals. It supports enzyme systems that help the functioning of certain thyroid hormones and assists in regulating cellular metabolic rates. It may be helpful in protecting against breast cancer.

**- Spiritual Nutrition: Six Foundations for Spiritual Life and the Awakening of Kundalini by Gabriel Cousens, M.D.**

Certain parts of the country have little or no iodine in the soil and isolated agrarian cultural groups who refrained from using iodized salt and cattle feed were subject to this disorder. Iodine deficiency in children may result in mental retardation. In addition, iodine deficiency has been linked to breast cancer and is associated with fatigue, neonatal hypothyroidism, and weight gain.

**- Prescription for Nutritional Healing, 4th Edition: A Practical A-to-Z Reference to Drug-Free Remedies Using Vitamins, Minerals, Herbs & Food Supplements by Phyllis A. Balch, CNC**

Women in Japan commonly consume seaweed, known for its iodine content. Seaweed is reported to reduce the risk for breast cancer. [Japanese Journal Cancer Research 92: 483-87, 2001] In one study, thyroid disease incidence was higher in breast cancer patients than in healthy women (58% versus



18%). But other studies do not confirm that abnormal thyroid hormone levels are associated with breast cancer. [Nutrition Cancer 27: 48-52, 1997] It may be that an increased ratio of thyroid hormone over estrogen sets up a growth-promoting effect on breast tumors.

**- *You Don't Have to be Afraid of Cancer Anymore* by Bill Sardi**

Thyroid and iodine Hypothyroidism and /or iodine deficiency are associated with a higher incidence of breast cancer. Experimental iodine deficiency in rats results in a mammary dysplasia histologically similar to human FBD. Thyroid hormone replacement therapy in hypothyroid, and some euthyroid, patients may result in clinical improvement. Research has shown that thyroid supplementation (0.1 mg/day Synthroid) decreases mastodynia, serum prolactin levels, and breast nodules in, supposedly, euthyroid patients.

**- *Textbook of Natural Medicine 2nd Edition Volume 2* by Michael T. Murray, ND**

There have been attempts to link two other dietary factors to breast cancer because Oriental women, so resistant to the disease, have better dietary supplies of selenium and iodine than do American women. These relationships may prove more tenable, for highly complex reasons. Selenium is related to the metabolism of Vitamin E, which I have already described as an anticancer factor, and iodine is related, of course, to thyroid function, which, as a member of the community of glands, is interrelated with the metabolism of estrogen.

**- *Breast Cancer: A Nutritional Approach* by Carlton Fredericks**

Breast cancer has been linked to iodine deficiency, and the soil in both Japan and Iceland is rich in both iodine and selenium. Japanese people also consume large amounts of fish, vegetables, and green tea, which may be a factor. The Cancer Control Convention in Japan has reported that germanium may be important in the prevention and cure of cancer. A daily dose of seven to ten servings of fruits and vegetables can reduce cancer risk by about 30 percent.

**- *Prescription for Nutritional Healing, 4th Edition: A Practical A-to-Z Reference to Drug-Free Remedies Using Vitamins, Minerals, Herbs & Food Supplements* by Phyllis A. Balch, CNC**

"We think it's very important for the breast," Cann says about iodine. This mineral, he believes, may prevent and even shrink breast tumors by combining with certain fatty acids and stopping cancerous cells from multiplying. And without the selenium, iodine doesn't do its job properly. You can see the power of this dynamic duo in Japan, where people eat about 5 grams of sea vegetables virtually every day. Cann points out the Japanese have one of the highest life expectancies and a very low rate of breast cancer.

**- *Eat and Heal (Foods That Can Prevent or Cure Many Common Ailments)* by the Editors of FC&A Medical Publishing**

An association has been made between low thyroid function and breast cancer; as a source of iodine and other trace minerals, sea vegetables provide optimal nutrition for the thyroid gland. The high content of potassium in seaweed is good for the heart and kidneys. The iodine in seaweed aids in weight loss also. Seaweed nourishes membranes, making it good for nervous disorders, skin conditions, colds, and constipation. It is high in chromium, which helps to control blood sugar levels.

**- *Prescription for Dietary Wellness: Using Foods to Heal* by Phyllis A. Balch, CNC**

It may not be chance correlation, then, that geographic differences in the incidence of these diseases are associated with differences in the selenium and iodine values in foods. Selenium is an antioxidant in the body, protecting the chromosomes from damage which can lead to cancer. Iodine, as you



probably know, is essential to thyroid function, but it may also play a role, directly or through its function in thyroid hormone, in susceptibility to breast cancer.

**- Breast Cancer: A Nutritional Approach by Carlton Fredericks, Ph.D.**

Seaweed is nature's richest, most bioavailable source of organic iodine, a substance lacking in the average American diet and directly related to the high incidence of thyroid disorders. Many of my patients with ovarian or breast cancer are deficient in iodine and show signs of low thyroid function. Seaweeds are also an excellent source of calcium and potassium and are rich in all minerals. They help in the removal of radioactive and toxic heavy minerals. I am thankful to herbalist Ryan Drum for teaching me the importance of this neglected food.

**- Herbal Medicine, Healing and Cancer: A Comprehensive Program for Prevention and Treatment by Donald R. Yance, Jr., C.N., M.H., A.H.G., with Arlene Valentine**

Iodine - Available in seafood, sea vegetables such as kelp and dulse, and iodized salt, iodine protects against breast cancer and is needed for proper energy metabolism as well as the growth and repair of all tissues.

**- Alternative Medicine the Definitive Guide, Second Edition by Larry Trivieri, Jr.**

Spencer of Frenahay Hospital in Bristol found that the so-called "goiter belts" (regions where goiter is extremely prevalent, due to low levels of iodine in the water and diet) had higher than average cancer rates, a finding that extended over 15 nations on four continents. According to Dr. Bernard Eskin, director of endocrinology at the Department of Obstetrics and Gynecology at the Medical College of Philadelphia, iodine deficiencies are associated with breast cancer in both rats and humans.

**- Stopping the Clock: Longevity for the New Millenium by Ronald Klatz and Robert Goldman**

A large fraction of absorbed iodine is taken up by the thyroid gland via the sodium/iodide symporter. In addition to the thyroid gland, active iodide occurs in the salivary glands, the gastric mucosa and in the lactating mammary gland. The nonlactating mammary gland does not accumulate iodide. Recently, it has been reported that accumulation of iodide via a sodium/iodide symporter appears to occur in human breast cancer tissue. The major route of excretion of excess iodine is by the kidneys.

**- PDR for Nutritional Supplements by Sheldon Saul Hendler and David Rorvik**

Turning from excessive intake of a dietary factor to deficiency, the association of inadequate diet with decreased resistance to malignancies is well documented. Iodine deficiency may lead to an underactive thyroid and ultimately to a goiter, and goiters have been clearly associated with an increased risk of breast cancer. Similarly, recognizable thyroid underactivity has been demonstrated in 10 percent of the women with another type of cancer (endometrial).

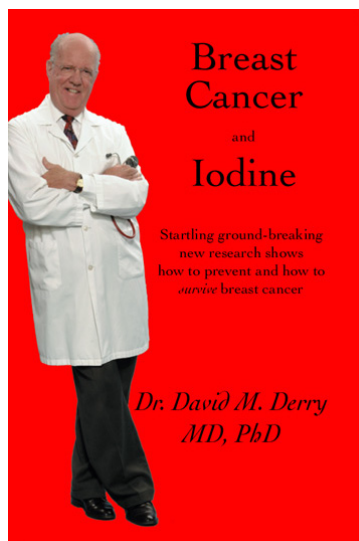
**- Breast Cancer: A Nutritional Approach by Carlton Fredericks, Ph.D.**

Both our mammary glands (breasts) and our thyroid glands have been linked from the time we were embryos and both have a special ability to store iodine. This function is vital during pregnancy and breast-feeding. Because bromide has been replacing iodide in our bread and in our breasts for the past fifty years, it is feared that this has led to an increase in both breast cancer and fibrocystic breast disease (both of which have increased dramatically over this time period).

**- The Natural Hormone Makeover: 10 Steps to Rejuvenate Your Health and Rediscover Your Inner Glow by Phuli Cohan**

## BOOK: BREAST CANCER AND IODINE

Source: [Breast Cancer and Iodine: How to Prevent and How to Survive Breast Cancer](#) by Dr. David M. Derry



### Excerpts from Introduction:

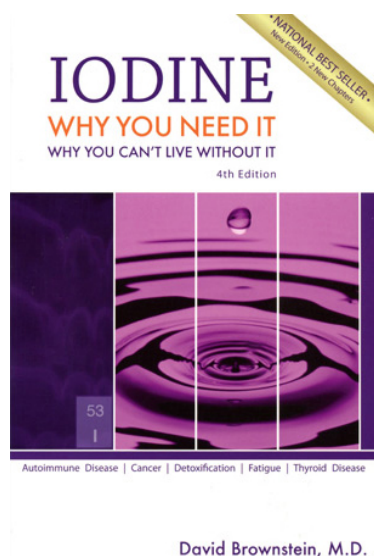
**This book is about cause, prevention and treatment of breast cancer.** Over the last century enough data and observations have become available to allow the collection of this material into a coherent, understandable and testable thesis of how breast cancer starts and how it progresses. This monograph therefore is devoted to the exploration of a new outlook towards breast cancer with also a passing mention of related cancers and diseases.

When discussing cancer we are talking about a systemic process, which allows the development of predictable sequence of biological changes leading to cancer. This presentation is not meant to be exhaustive and I hope to complete a more comprehensive treatment of this thesis in the future.

***"Purposely, I have addressed this book to women with breast cancer. Since reading some of the stories of personal experiences with breast cancer, I am full of admiration for their knowledge and enthusiasm with which they pursue this disease and the research connected with it."*** -- Dr. David Derry

## BOOK: IODINE: WHY YOU NEED IT, WHY YOU CAN'T LIVE WITHOUT IT

Source: David Brownstein, MD, [https://www.drbrownstein.com/bookstore\\_iodine.php](https://www.drbrownstein.com/bookstore_iodine.php)



Dr. Brownstein has expanded and updated this book with all the latest information about iodine. The entire book has been updated with new case histories. In addition, there are two NEW chapters which provide information about:

- Iodine and Detoxification
- Children and Iodine
- What iodine does in the body
- Why autoimmune thyroid disorders form from a low iodine state
- Why it is so important to ensure an adequate selenium intake

Dr. Brownstein feels iodine is the most misunderstood nutrient. He feels it is impossible to achieve your optimal health when there is iodine deficiency present. This book provides information on how iodine therapy can help:

- ADHD
- Breast Cancer
- Detoxification
- Fatigue
- Fibrocystic Breasts
- Graves' Disease
- Hashimoto's Disease
- Hypothyroidism
- Improve the Immune System

This book will show you Dr. Brownstein's latest research about iodine. Each chapter has been updated! Ensuring adequate iodine levels is essential to helping you achieve your optimal health. Dr. Brownstein will provide you with all new information on the importance of iodine.

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## NASCENT IODINE

Source: Online research



Traditionally, the importance of iodine to the biological function of the body was focused on iodine's role in the nourishment of the thyroid gland, particularly for the production of T3 and T4 hormones and the regulation of metabolism. However, as the understanding of this nutrient has progressed, we come to understand that the role of iodine in the body far surpasses what most thought, and is not only necessary for overall health, but a crucial component of the detoxification process.

## **What is Nascent Iodine?**

Nascent Iodine is a consumable iodine in its atomic form rather than its molecular form. It is an iodine atom that has an incomplete number of electrons. It is paramagnetic. What does that mean? Well, it means that the iodine atoms can hold an electromagnetic charge. While this all might sound a little like a flashback to chemistry class, the most important thing to understand is that Nascent Iodine has a huge energy release when consumed. This "charged" state is held by the atom until diluted in water and consumed, whereby it gradually loses energy over a 2-3 hour time span. During this time, Nascent Iodine is recognized by the body as the same iodine that is produced by the thyroid and is absorbed effortlessly by the body.

## **Is Nascent Iodine the Same as Detoxified Iodine or Atomic Iodine?**

No, Detoxified Iodine is a coined name that for many years has been produced at 10 amps for five minutes with a high volume of iodine in solution. An iodine process that according to Edgar Cayce gives the molecule of iodine additional energy making it easier to assimilate into the body.

Nascent Iodine is also totally different from the typical iodine in its denser state sold as an antiseptic, or as iodine tri-chloride (claiming to be atomized), or as added to potassium iodide to make it soluble in liquid. It is also unlike glandular or prescriptions containing hormones that take over the thyroid's job, instead of nutritionally building the thyroid to do its own job. Seaweed, seafood, greens, raw sunflower seeds, are good sources of iodine, but may not have the levels necessary to support the thyroid fully for good homeostasis in the body. Sources from seaweed may also contain undesirable levels of arsenic.

## **Where is Iodine Used in the Body?**

All the cells in your body contain and make use of iodine. It is concentrated in the glandular system of your body, with your thyroid containing the highest amount compared to any other organ. Significant amounts are also stockpiled in numerous other areas of the body including the salivary glands, cerebrospinal fluid and the brain, gastric mucosa, choroid plexus, breasts, and ovaries.

## **How soon will I feel the effects of Nascent Iodine?**

**Some of our clients have noticed additional energy on the first day after taking Nascent Iodine. If you already suffer from an iodine deficiency, you are most likely to notice the effect sooner.**

## **Ingredients**

Nascent Iodine in a base of organic grain alcohol. (2% Iodine by weight / 400mcg of nascent iodine per drop)

## **Usage**

Depending upon desired effect. One drop = 400mcg of iodine. If using for additional energy and general improved health take up to 6 drops daily. Frequent small doses are more effective than larger amounts at less frequent intervals. Always take on an empty stomach. Most will find that it is important to build up gradually in order to experience the least amount of detoxification symptoms.

**Recommended:** Take on an empty stomach 30 minutes before or 1 hour after meals, medications and/or supplements. Taking it after 4 PM could raise your energy levels and keep you awake at night. It is recommended to take before breakfast, before lunch and then again before 4 PM

## IODINE TABLETS: HOW IODINE PROTECTS THE THYROID FROM RADIATION

[March 14, 2011](#) | By Eryn Brown, Los Angeles Times

Source: [Los Angeles Times](#)

Workers in Switzerland pack iodine tablets to send to the Swiss embassy... (Reuters/Pascal Lauener )

The International Atomic Energy Agency said over the weekend that Japan had "distributed 230,000 units of stable iodine to evacuation centres" near the Fukushima Daiichi and Fukushima Daini nuclear power plants.

Damage to those plants from Friday's earthquake and tsunami has increased the risk that people in the area could be exposed to radiation.



If that happens, here's why taking iodine tablets might help.

In [this fact sheet](#), the Centers for Disease Control and Prevention explain that the body needs iodine -- in a nonradioactive form -- to make thyroid hormones, which regulate metabolism. People usually get the stable iodine they need from food.

But absorbing radioactive iodine-131, which is present in the steam released from failing power plants like the ones in Japan, can cause cancer. Once breathed into the lungs or consumed by eating or drinking contaminated food or beverages, radioactive iodine travels through the body and quickly is absorbed by the thyroid gland, where it can damage DNA.

The body can't tell the difference between stable and radioactive iodine. Taking stable iodine tablets can protect the thyroid from injury by "filling up" the gland -- thus preventing it from taking up radioactive iodine. It's important for people to take it quickly, the CDC said. It remains effective for 24 hours.

Iodine tablets do not prevent radioactive iodine from entering the body in the first place, nor do they protect organs other than the thyroid gland. They also do not reverse thyroid damage that has already occurred.

## IODINE DOSAGES AND TREATMENTS

Source: Dr. Mark Sircus, <http://iodine.imva.info/index.php/iodine-dosages/>

*After testing over 500 patients, I found that 94.7%  
of my patients are deficient in inorganic iodine.*

*Dr. David Brownstein*

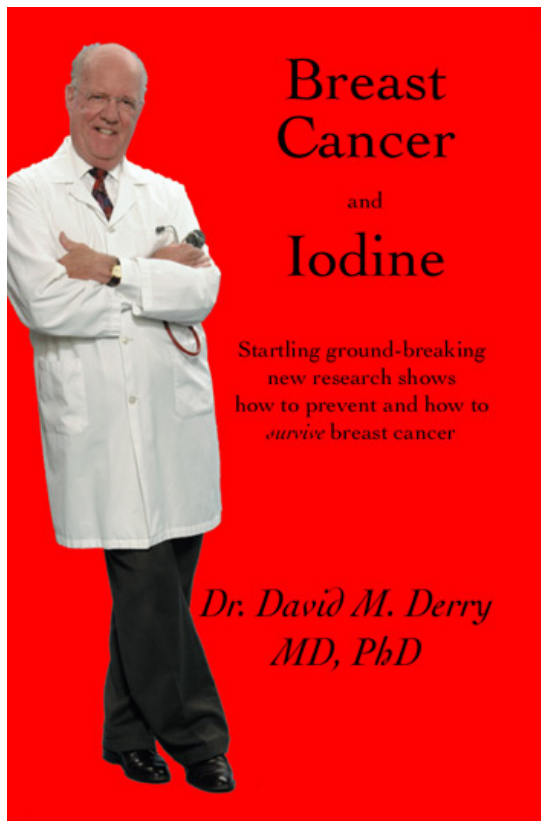
There are several reference points we can use to plot out iodine dosages for a variety of disorders that beg for the use of iodine for successful treatment. In this chapter I will present different views and practices from present as well as from the long past when iodine was vastly more popular as a medicine than it is today. For whatever irrational reason, doctors and patients fear iodine thus en mass do not use to its fullest potential.

Humans tolerate large doses of iodine but the ultra high doses that were used many decades ago are not required to get the most out of iodine therapy. Just a little goes a long way, as the governmental iodized salt programs showed but this dosage level was only affective for Goiter and its avoidance. It actually takes very little iodine to prevent this disease but no one ever said that was the only purpose and need for iodine in the body. Today people are more deficient then ever before because our need for iodine has increased in direct proportion to our toxic burdens especially of other competing halogens.

So effective is iodine that aerosols can be effective in sterilizing a room at levels not even detectable by humans. But Dr. David Derry of Canada says that, "Dietary iodine found in iodized salt is **below the amounts needed to fill mucus defense roles**. To protect themselves, people wishing to boost their defense against infections should supplement their diets with iodine."

"Extremely high doses of iodine can have serious side effects, but only a small fraction of such extreme doses are necessary to kill influenza viruses," continues Derry who tells us, "In 1945, a breakthrough occurred when J.D. Stone and Sir McFarland Burnet (who later went on to win a Nobel Prize for his Clonal Selection Theory) **exposed mice to lethal effects of influenza viral mists. The lethal disease was prevented by putting iodine solution on mice snouts just prior to placing them in chambers containing influenza viruses.**"





Dr. Derry is one of several MDs that I refer to as the Iodine Doctors.

Dr. David Brownstein said, "After testing individuals and finding low iodine levels, I began to use smaller milligram amounts of iodine/iodide (6.25mg/day). Upon retesting these individuals 1-2 months later, little progress was made. I therefore began using higher milligram doses (6.25-50mg) to increase the serum levels of iodine. It was only with these higher doses that I began to see clinical improvement as well as positive changes in the laboratory tests. Why would people need the larger doses of iodine? Why have iodine levels fallen 50% in the last 30 years? As I pondered these questions, I came to the conclusion that the toxicity of modern life must be impacting iodine levels. It is well known that the toxic halides, fluoride and bromide, having a similar structure as iodine, can competitively inhibit iodine absorption and binding in the body. Because of the elevated levels of toxic halides in the environment and in the food supply, iodine levels have not only fallen but larger amounts of iodine are necessary to correct iodine deficiency as well as to promote a detoxifying effect of heavy metals."

I have suggested that people put iodine into a nebulizer for aerosol treatment for transdermal effect into the lung tissues in the case of lung cancer, emphysema, asthma and tuberculosis. I make the recommendation to do the same with magnesium chloride, sodium bicarbonate and glutathione. It seems obvious that iodine would make the ideal first line of defense in influenza prevention and without doubt in the treatment of both swine flu and regular influenza. Iodine, teamed up with these other primary and very necessary substances, offers an exceptionally strong defense and treatment against viral infection. It certainly is better than the antiviral Tamiflu, which only reduces symptoms by only one day. It is really not hard to beat that.



Some physicians I know are also using chlorine dioxide as an agent for treatment either **transdermally or intravenously** applied but I would never use it for the prevention of anything. Though I have heard some success stories about chlorine dioxide I do not use it myself nor for my children. I always will reach for the iodine first for all the things that chlorine dioxide proponents advocate, for the iodine is much safer for oral usage, especially when used in the right form. The body needs iodine anyway as a fundamental nutritional item but when even heavier guns are needed instead of reaching for a pharmaceutical one can think of chlorine dioxide.

*A function of iodine in the human body relates to clear thinking.  
The mind simply works better when the body is supplied the iodine it  
needs and studies do show that iodine deficiency leads to decline in IQ.*

Despite its being critical to normal neurocognitive development, a new study finds that only 51% of US prenatal multivitamin brands contain any iodine, and in a number of randomly selected brands, the actual dose of iodine contained in the supplements did not match values on the labeling.<sup>[1]</sup> It is easy to understand a synthetic pharmaceutical being phased out but to have iodine, an essential nutritional element that doubles as a super effective full spectrum anti-pathogen, ignored for what it can do is not reasonable.

Dr. Michael B. Schachter says, "The treatment dose when a person is iodine insufficient is generally between 12.5 mg and 50 mg daily. Preliminary research indicates that if a person is iodine insufficient, **it takes about 3 months to become iodine sufficient while ingesting a dosage of 50 mg of iodine and a year to become iodine sufficient while ingesting a dosage of 12.5 mg of iodine daily.** However, the patient needs to be monitored closely with awareness of possible side effects and detoxification reactions." This is quite a bit of iodine and if his statements can be substantiated then most people are using dosages which are much too low.

In fact if we put our attention on the full iodine story, which collides with the fluoride, mercury and bromide story we conclude that we can only err on the side of too low of a dose. Patients should push their dosages higher and higher until they get the desired result but I recommend doing this slowly unless there is little time as is the case in emergency situations or very late stage cancer. When using the Nascent Iodine one can dose pulse every two hours orally taking each individual dose up to as many as 20 drops and even at this level we are no where near points of iodine toxicity and tolerance. I have given my own three year old up to fifteen drops in a dose when she was confronted with fever and infection.

When treating life threatening diseases we do not have months to fool around with low dosages. We need to zoom up iodine levels quickly. And we need to get it concentrated to certain tissues or organs. Just to give you an idea of how high iodine dosages have been taken to we have to revisit the 1930s when iodine was still a universal medicine, present in the US Pharmacopeia and was used at much higher dosages than anyone even dreams of using today.

The usual dose for treatment was 300 mgs (46 drops of full strength Lugol's) to 1 gm (1000 mg, 154 drops). It is very important to realize that today's Lugol's is not universally the same as it was because of new federal legal requirements about concentration levels. The best company offers Lugol's at varying concentration levels. (2.2, 3 and 7 percent) Nascent is a 2 percent solution.

*Preoperative before thyroidectomy: Lugol solution 5-10 gtt  
three times daily, or 2-6 gtt twice or three times daily  
given 10-21 days prior to surgery has been used.  
MedlinePlus*

Dr. Schachter wrote, " Dr. Abraham started this Iodine Project around 1998 when he became aware of the many benefits of treating patients with iodine using doses far beyond the 2 mg a day, which most physicians consider to be potentially toxic. He noted that starting in the 1820s, the French physician Jean Lugol used these higher doses to treat a wide variety of conditions. Dr. Lugol combined elemental iodine (5 %) and potassium iodide (10%) with 85 % water. Since iodine kills infectious agents, Dr. Lugol successfully treated many infectious conditions with this solution, which became known as Lugol's solution, and which is still available today. Prior to World War II, many American and European physicians used Lugol's solution to treat thyroid conditions, using doses higher than 2 mg daily without apparent significant adverse effects."

When you look at mainstream recommendations all the above information seems strange but this is because dosage and RDA are set obscenely low. Note instead of talking in milligrams (mg) the RDA is in micrograms (mcg) which is a scale exactly 1000 times less. Meaning it takes 1000 mcg to equal 1 mg and it takes 1000 mg to equal a gram.

**Recommended Daily Allowance (RDA):50mcg daily for infants 0-12 months; 90mcg daily for 1-8 years; 120mcg daily for 9-13 years; 150mcg daily for 14-18 years.**

**Adequate Intake (AI) for infants:110mcg daily for ages 0-6 months; 130mcg daily for 7-12 months.**

**Tolerable Upper Intake Levels (UL): 200mcg/day for ages 1-3 years; 300mcg/day for 4-8 years; 600mcg/day for 9-13 years; 900mcg/day for 14-18 years (including pregnancy and lactation).**

**Radiation emergencies: Potassium iodide (KI) should be taken just prior to, or as soon as possible after exposure. For infants, babies, and children, KI is administered for exposure of 5 centigrays (cGy) or more. For birth through 1 month, 16mg can be administered; for 1 month through 3 years, 32mg can be administered; for 3-12 years, 65mg can be administered; for adolescents ages 12-18 years, 65mg can be administered (or up to 120mg if the adolescent is approaching adult size).**

The highest dosage I have heard any doctor using today is 100 mg and that is quite a bit when you take iodine in a form where you can taste and appreciate what you are taking into your body. My favorite iodine (Nascent) is ideal for oral and aerosol applications into both nebulizers and vaporizers though I believe Lugol's, which is harsher on the stomach and has a very bitter taste, is better for transdermal application to the skin not only because it is less expensive but because you can get it at higher concentration.

**Nascent Iodine, though more expensive actually tastes and feels good while going down and is gentle enough to give to children, who do not seem to complain about its taste.** Having it on hand for ones children is important for when they need it you can get them to take it but that is not so

certain with Lugol's. Nascent iodine contains approximately 400 mcg per drop so 10 drops is 4 mg and 100 drops is only 40 so it's safe to take much higher dosages than is suggested on the bottle. One hundred drops a day is a strong dose, but when treating life threatening diseases it would not be unheard of to use upward of 200 drops a day in divided doses. It is very important to remember though that one should not shoot straight up to these dosage levels. One should start at low dosages and monitor for detox reactions, which will be less if sodium bicarbonate and other substances are used in conjunction.

*For alcohol-sensitive people there is Nanocollidal iodine:*  
<http://www.cedarbear.com/CBNLabsIodineProducts.html>.

*Recovered alcoholics are extremely sensitive with the tiniest amount of any alcohol a problem.*



Dr. Abrahams recommends taking 50 mg of Iodine/Iodide as Lugol's solution (8 drops) daily for 3 months as a loading dose. Lugol's solution is available online at varying concentrations. Then his recommendation is that dose should be gradually reduced to the 12.5 mg (2 drops) maintenance dosage under the supervision of a knowledgeable health care professional. Dr. Abrahams feels that 14 to 15 mg. of iodine/iodide daily is the upper maximum of safety for long term use. This is close to Dr. James Howenstine's (another prominent iodine advocate) recommended dose of 12.5 mg daily.

In 1953 Dr. Orian Truss discovered the devastating effects of antibiotics in an Alabama (USA) hospital. During a hospital round Truss was intrigued by a gaunt, apparently elderly man who was obviously dying. However, he was only in his forties and in hospital for four months. No specialist had been able to make a diagnosis. Out of curiosity Truss asked the patient when he was last completely well. The man answered that he was well until six months before when he had cut his finger. He had received antibiotics for this. Shortly afterwards he developed diarrhea and his health deteriorated. Truss had seen before how antibiotics cause diarrhea. It was known that Candida was opportunistic and thrived in debilitated patients, but now Truss wondered if it might not be the other way round, that Candida actually caused the debilitated condition.

**Truss had read that potassium iodide solution could be used to treat Candida infestation of the blood. So he put the patient on six to eight drops of Lugol's solution four times a day and soon the patient was again completely well.** Soon afterwards he had a female patient with a stuffy nose, a throbbing headache, vaginitis and severe depression. To his amazement all her problems immediately cleared with Candida treatment.

When I was coming to closure on this chapter I happened to talk to Dr. Brownstein. We were in total agreement about dosages. Our consensus extended to the proposition that the sicker the patient the more iodine they would need with most average patients needing 25 to 50 mgs with 12 mg being a good maintenance dose though of course this varies with the quality of ones diet and with ones location. Living near the beach has its health advantages but in no case should one depend on iodized salt for their needs.

Dr. Brownstein said he was using 200 to 300 mg with his prostate and breast cancer patients with those who have metastases needing the highest dosages. He also uses both Lugol's and Nascent

reserving the Nascent for his more sensitive patients. There are the tablet form of varying dosage, which are used by more than several of the iodine doctors I know.

*Iodine is needed in microgram amounts for the thyroid,  
mg amounts for breast and other tissues, and **can**  
**be used therapeutically in gram amounts.***<sup>[2]</sup>

*Dr. David Miller*

## **References:**

[1] <http://www.medscape.com/viewarticle/588739>

[2] Iodine Metabolism; [http://iodine4health.com/overviews/clinicians/miller\\_clinician.htm](http://iodine4health.com/overviews/clinicians/miller_clinician.htm)