The Hidden Epidemic:

Is an Iodine Deficiency Silently Robbing Your Health?

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Contents

The Problems

The Solutions

The Problems

Iodine Deficiency Is a Worldwide Epidemic

You may think that since iodine is in most table salt these days that iodine deficiency is a thing of the past. You may have even been told by your doctor not to worry about your iodine levels. But nothing could be further from the truth. Now more than ever before, iodine deficiency is a problem worldwide – including in the U.S.

Here's a fact that not many doctors share with their patients – of all the essential substances the body must have in order to maintain optimal health, iodine may be the most important.

"Let's do the basics," says Dr. David Brownstein, MD, one of the foremost experts on iodine and author of *Iodine: Why You Need It, Why You Can't Live Without It.*[1] "To supply the body with the things it needs to function optimally... we supply the body with the right nutrients [and] it should be fine for a lifetime. I consider one of the basics iodine. Every cell in the body requires iodine to function optimally. We cannot function optimally in an iodine deficient condition." [2]

Brownstein says that, along with his research partner, he has tested about 6,000 individuals for basic iodine levels. Of that vast number, approximately 96% have been low in iodine.

This percentage is surprising, but it is not abnormal. According to the World Health Organization (WHO), approximately two billion individuals worldwide are iodine deficient.[3] In the U.S., the percentage could well mimic Brownstein's findings.

At the same time, government public relations campaigns and a seriously outdated U.S. RDA (Recommended Daily Allowance, now called the Dietary Reference Intake,[4] or DRI) paint an "all is well" picture about iodine in America that is dangerously misleading.

The bottom line is this: making sure you and your family are getting enough iodine from quality sources every day is something you need to be thinking about.

Iodine RDA: A Brief History

The current RDA for iodine was set forth by the U.S. National Institutes of Medicine in the 1940s for a specific purpose. Prior to this time, large swaths of the U.S., especially in the Great Lakes, Northwestern, and Appalachian areas (as well as a large part of Canada) were known as the "Goiter Belt." [5] This is because populations there were suffering from the most severe consequences of iodine deficiency. In fact, a 2012 report put out by Boston Medical Center states that in the 1920s, between 26-70% of children in that area had a "clinically apparent goiter."[6] [Note: a goiter is a swelling on the neck caused by an enlarged thyroid gland.]

To alleviate this problem, the introduction of iodized salt in the Goiter Belt began in earnest in the mid-1920s. By the early 1950s, 60-70% of all American households used iodized salt exclusively. Now, the WHO's International Council for the Control of Iodine Deficiency Disorders estimates that roughly 90% of all American households have access to iodized salt and use it on a regular basis.[7]

This all sounds like it is a "problem solved" when it comes to iodine, right? However, things are not always so cut and dried when it comes to public health policy in America.

Subclinical Iodine Deficiency: Where the Real Problem Lies

The RDA for iodine that was established in the 1940s is still in effect today. It is:[8]

- 150 micrograms daily for adults
- 220 micrograms daily for pregnant women
- 290 micrograms daily for lactating women

These RDAs were designed over 75 years ago, specifically to prevent goiter and other complications that can arise because of iodine deficiency in pregnant women. They do not take into consideration the laundry list of health complications that can result from "subclinical iodine deficiency," nor the increasing environmental factors that are currently affecting iodine uptake on a worldwide scale.

In fact, subclinical deficiencies are a little-known but widespread problem for a number of essential vitamins and minerals, including iodine. Unlike overt deficiency of a nutritional substance, subclinical malnutrition is revealed via subtle biochemical changes, at least at first. If left untreated, subclinical deficiencies can often lead to clinical malnutrition and higher risk for many diseases.

A classic example of this can be seen with vitamin C. The RDA for this essential vitamin is 60 milligrams daily, the amount needed to prevent scurvy. But for the last 20 years or more, nutritional institutions such as the Linus Pauling Institute have been recommending at least twice that amount from vitamin C-rich foods and supplements in order to increase antioxidant load and help prevent chronic illnesses such as cancer and cardiovascular disease.[9]

So, what about subclinical iodine deficiency? There is clear evidence that America can be counted among the countries in which subclinical as well as overt iodine deficiency levels have reached epidemic proportions.

The biggest clue to this can be seen in the National Health and Nutrition Examination Surveys (NHANES) I (1971-1974) and III (1988-1994), conducted by the U.S. Centers for Disease Control. Between the first NHANES study and the third, the average concentration of iodine in urine decreased by 50% in the U.S. At the same time, iodine levels below 5 micrograms/dL (deciliter) increased four-fold. And the problem isn't going away. CDC researchers found no change in iodine deficiency levels between NHANES III and NHANES IV.[10]

3 Reasons Why Most People Are Iodine Deficient

There are multiple factors that have led up to the situation we are in today. In this report, we reveal three key factors, and offer solutions to help you turn a potential iodine deficiency around. As anyone suffering from the symptoms of an underactive thyroid knows, getting back into balance can literally give you your life back. Not to mention that it can support long-term disease healing and prevention.

#1 Poor soil nutrient quality

In addition to the historical miseducation regarding how much iodine our bodies actually need to function properly, another factor in the slow decline in iodine levels is the depletion of vital nutrients in U.S. soil over the last 100 years. In fact, it was soil depletion in the Goiter Belt at the turn of the century which led to goiters and pregnancy complications 20 years later.

The people living there were surrounded by farmers who grew spinach and cranberries,[11] raised livestock for dairy products, and raised chickens for fresh eggs. These foods would normally have supplied them with adequate amounts of iodine and other vital nutrients. Once their soil became depleted because of over-cultivation and lack of crop rotation, however, this was no longer the case.

Of course, soil depletion did not just happen in the Goiter Belt — and it didn't go away after the 1940s. A multi-decade investigation conducted by the University of Texas studied over 40 common vegetables and fruits grown in the U.S. between 1950 and 1999. Shockingly, the researchers found statistically significant declines of almost all essential vitamins and minerals in practically every crop.[12]

#2 Lower salt consumption (and more toxins) starting in the 1970s

Another "one-two punch" happened in the 70s and 80s. These events contributed to lower iodine levels overall.

During this period, consumers began to respond to calls from allopathic (Western) health institutions and the sensationalized media to "cut the salt" because of new research which linked sodium to high blood pressure. At the same time, many health-conscious individuals began avoiding iodized salt due to reports of manufacturers using bleached sodium chloride, fluoride sodium bicarbonate, and other harmful chemicals in salt processing.

Today, most people are aware of the importance of healthy sources of sodium for overall health. Sadly, industry practices that utilize harsh chemicals in commercial salt production haven't changed that much over the last 50 years. Holistic experts still advise avoiding iodized salt at all costs and opting for Himalayan pink or Celtic sea salt instead.

Most importantly, however, it was during the industrial boom of the 70s and 80s that the toxic load grew, especially in the U.S.[13] High toxic load is a burden we all now carry. As careful as you may be in avoiding toxins, no one can completely avoid exposure to dangerous chemicals in the water, air, and soil. Included in this toxic burden are specific environmental toxins which can affect iodine levels directly by blocking iodine absorption.

#3 Halide toxins that block iodine

You have likely heard about environmental toxins which are linked to serious diseases. But did you know that there are specific toxins which block the absorption of iodine in your body?

These iodine-targeting chemicals are called "halides" because they each contain a halogen atom mixed with another element. In fact, iodine in its organic form is part of the halide group on the periodic table as well. This is why halide toxins – such as the ones mentioned below – are particularly damaging.

At the biochemical level, the body cannot differentiate between an iodine molecule and a bromide molecule. When a rush of bromide (or chlorine or fluoride) chemicals enter the body, they will take up the spaces within cellular receptor sites in the thyroid, the mammary glands and ovaries in women, the prostate glands in men, and in other locations of iodine uptake.

Think of the situation as a rude driver in a busy parking lot. You know the scene. Here comes someone who barrels their way into the space you had your eye on and were just about to go into. Inside your body, the "rude drivers" are fluoride, chlorine, and especially bromide. Let's examine each in more detail:

Bromide

Bromide is first on our list since bromide-induced thyroid dysfunction is on the rise. In addition, investigational evidence is increasingly concluding that it may be a particularly aggressive toxic chemical when vying for common receptor sites in iodine-dependent glands.[14]

Because bromide is cheap to produce, manufacturers from different industries are increasingly using it for everything from household paint and new car interiors to pool and spa cleaning products. Bromide replaces iodine in the thyroid gland, which can lead to rapid-onset hypothyroidism and goiter.

Excessive bromide can also lead to lower levels of much-needed iodine in the mammary glands and result in increased kidney stress. Sadly for the American public, bread manufacturers began replacing iodine with a form of bromide called potassium bromate in breads and pastries starting in the 1970s, since it makes a good (and very cheap) dough softener.[15]

Fluoride

Fluoride has been pumped into the municipal water supplies of many U.S. cities and towns since the 1960s. Today, 67% of the American population lives in areas where fluoridated water is the norm.[16] Proponents of this practice tout fluoride's benefits for preventing tooth decay.[17] What many don't know, however, is that fluoride can wreak havoc on the endocrine system, the brain, and fertility.

A 2015 study conducted by the Centre for Health Services Studies and the University of Kent in the U.K. found that hypothyroidism was twice as high in areas where water was fluoridated versus non-fluoridated areas. They also found that where fluoride levels were more than three milligrams per liter of water, hypothyroidism rose by about 30% across the board.[18]

Fluoride also can calcify the pineal gland,[19] a major component of the endocrine system responsible for melatonin synthesis.

Chlorine

Chlorine is another substance that is part of the halide group, so the same rules about iodine blocking apply here as well. Besides exposure through bleaching products, most individuals are exposed to chlorine through taking showers and baths using nonfiltered chlorinated water. Another source of exposure is swimming in heavily chlorinated swimming pools and lounging in chlorinated water in the jacuzzi.

Exposure to chlorine from warm or hot water can be extra dangerous since this toxin can be absorbed through the skin and the respiratory system, and then go directly into the bloodstream.

A joint study sponsored in part by the U.S. Environmental Protection Agency (EPA) even found that children who used swimming pools on a regular basis were more prone to asthma.[20]

Perchlorate

Perchlorate is a man-made substance used by the military as well as the aerospace and agribusiness industries. It has many of the chemical characteristics of organic halides and can produce the same iodine-blocking effects on the thyroid and other areas of the body. Jet fuel and many fertilizers contain perchlorate, making airborne exposure as well as perchlorate in water sources a concern for all.

A report published in *Scientific American*[21] states that traces of perchlorate can be found in the bloodstreams of just about everyone on the planet. Another study conducted by the University of California, Los Angeles, speculated that perchlorate exposure may lead to a higher risk of autoimmune thyroid disease (Hashimoto's or Graves' disease).[22]

All of the ways in which halides may affect us in our toxic world can be overwhelming. The good news, however, is that getting rid of them can be relatively simple. One such way is through increasing your iodine levels. More information regarding protecting yourself from iodine-depleting halides can be found in the SOLUTIONS section of this report.

What Are the Signs of Iodine Deficiency?

Iodine deficiency can affect you in dozens of ways since it plays a part in so many functions in the body. Besides reproductive and endocrine support, it is a powerful antioxidant that helps the immune system, assists in maintaining strong teeth and bones, supports brain health and mood balancing, helps detoxification pathways, and is a powerful antiseptic and antifungal. In short, it is needed by every cell in the body.

So, how can you tell if you have an iodine deficiency? Here are just a few possible signs:

- Fatigue
- Low energy
- Mood swings
- "Brain fog"
- Poor memory
- Dry skin
- Hair loss
- Unexplained weight gain or inability to lose weight
- Sore throat that won't go away
- Swelling in the neck
- Sensitivity to cold
- Gastric disorders (such as IBS)
- Heart palpitations
- Ovarian cysts and uterine fibroids in women
- Prostate imbalance in men
- Autoimmune conditions

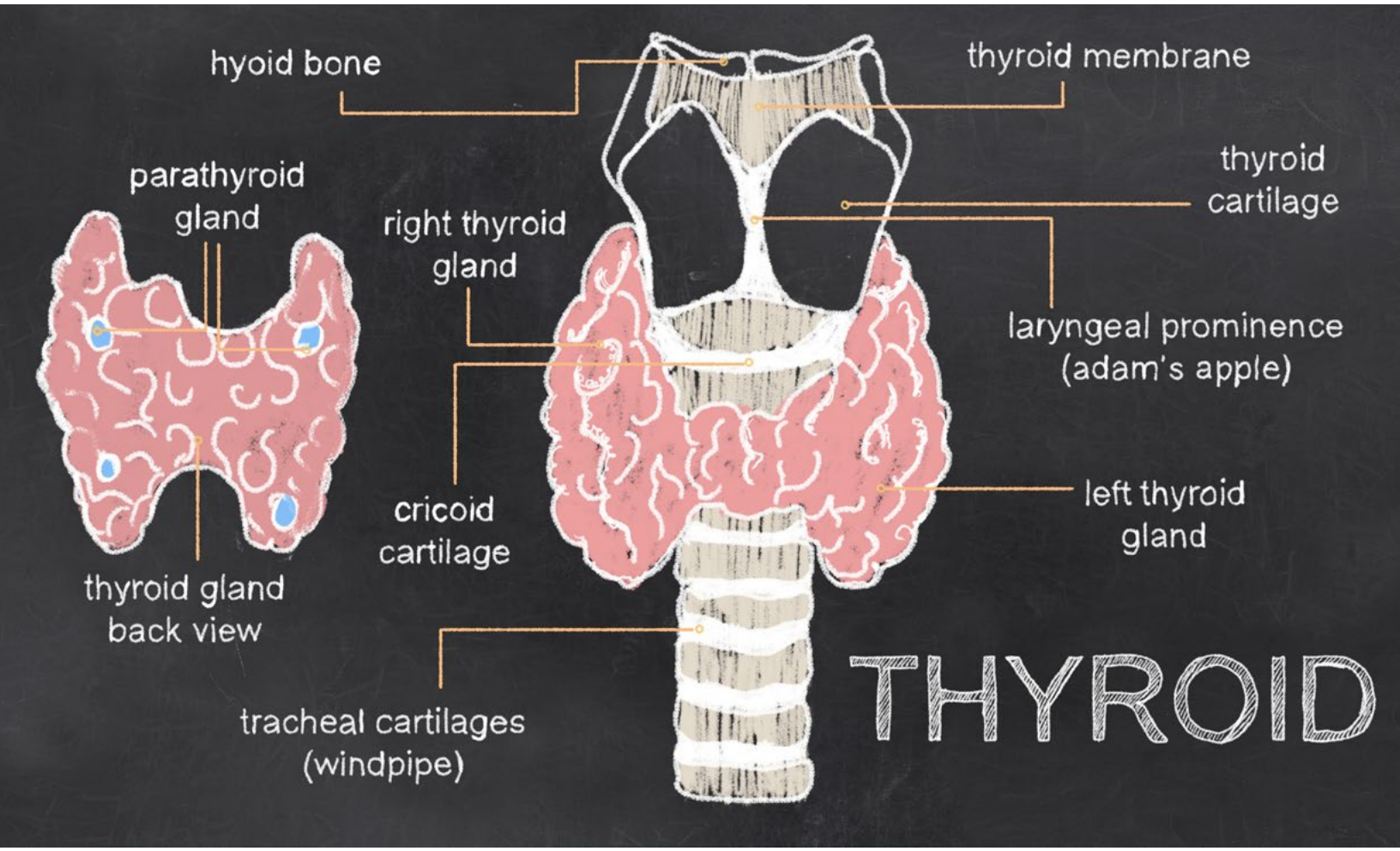
Do any of these symptoms apply to you? If so, be sure to read on. Next up we will explore some specific health conditions that are often directly related to iodine deficiency.

Iodine and the Thyroid

You may recognize that many of these iodine deficiency symptoms are the same as that of hypothyroidism (aka an underactive or sluggish thyroid). Iodine is the "food" for the thyroid. Not getting enough iodine for this "master hormone processor" will lead to hypothyroidism, plain and simple.

Key hormones such as thyroxine (T4) and triiodothyronine (T3) cannot be created without a properly functioning thyroid. These hormones are vital to the body since they are two of the main regulators of your metabolism. Your thyroid cannot make T4 and T3 without iodine.

Millions of people are feeling the effects of hypothyroidism in the U.S. today. According to the National Thyroid Association, 12% of the U.S. population will develop a thyroid condition sometime in their lifetime.[23] At this moment, roughly 20 million Americans suffer from some form of thyroid disease – however, an estimated 60% don't even know they have it!



Hashimoto's Thyroiditis

Most experts, even within conventional medical science, now say that the majority of hypothyroid cases these days are really the autoimmune condition Hashimoto's thyroiditis, also known as chronic lymphocytic thyroiditis or simply Hashimoto's.[24] In the U.S., there are approximately 200,000 new documented cases of Hashimoto's annually. According to the American Association of Clinical Endocrinologists (AACE), 14 million Americans currently live with the condition.[25]

Hashimoto's is technically an autoimmune condition, which means that the immune system creates antibodies which interrupt important chemical signaling between the thyroid, the pituitary, and the hypothalamus. These signals are needed to produce the proper amounts of T3 and T4. Hashimoto's is often discovered by blood tests which show elevated levels of TSH (thyroid stimulating hormone), as well as particular antibodies in the bloodstream.

There is a lot of confusion out there around iodine's role in Hashimoto's, in part because there are still a lot of factors scientific research does not know about autoimmune conditions in general, the importance of iodine in the body in general, and how these element all relate to each other.

Many people suffering from Hashimoto's believe that iodine is the sole cause of their condition, but nothing could be further from the truth.

The role that iodine plays in a person who has Hashimoto's is complicated and beyond the scope of this report. However, it is a known fact that iodine deficiency is the cause of the majority of hypothyroid conditions worldwide. And if it is now known that most hypothyroidism is in fact Hashimoto's, then it follows that one of the fundamental causes of Hashimoto's is iodine deficiency as well.

That being said, when a person is dealing with the myriad of imbalances and glandular inflammatory responses associated with Hashimoto's, there may be several factors at play which need to be considered.

Does this mean that individuals with Hashimoto's should avoid iodine at all costs? No way! Most Hashimoto's experts recognize the importance of iodine for people with Hashimoto's,[26] but recommend "going slow" at first.

Studies from as far back as the 1990s show that low-dose iodine supplementation for individuals with Hashimoto's who were not on any other rebalancing protocols other than thyroid hormone therapy was able to reduce thyroid antibody levels.[27] Other studies show the importance of selenium in providing needed support for iodine absorption.[28] Studies also correlate the removal of halide toxins like bromide to increased iodine absorption in general.

It is essential that a person with Hashimoto's work with a qualified healthcare professional who knows the important role iodine plays in the body as well as how iodine works in combination with other supplements such as selenium.[29] A well-informed professional will also encourage gentle detoxification from halide toxins, which we'll discuss in the next section.

Remember that high halide toxicity can block iodine absorption in the thyroid. The autoimmune components of Hashimoto's often affect detoxification pathways, so many Hashimoto's sufferers will have high levels of bromide, fluoride, and chlorine, as well as a back-up of other toxins in their system. For anyone with autoimmune disease, supporting the liver[30] with herbs such as milk thistle[31] and going gluten-free[32] are essential for recovering health.

If you are suffering from hypothyroidism, or specifically Hashimoto's, know that thousands of individuals have turned their condition around through dietary changes, supporting their detoxification pathways, the right supplementation, and lifestyle changes such as reducing stress.

Hypothyroidism in Men

Current statistics state that women are five to eight times more likely to have hypothyroidism than men. However, this does not mean that men cannot be affected by hypothyroidism.

Low iodine levels will affect a man's thyroid in much the same way it will a woman's, but with a few key differences. Since the thyroid and its T3 and T4 hormones also regulate all other hormones, hypothyroidism in men can cause imbalances in testosterone levels. This situation, in turn, can lead to reduced levels of sex hormone-binding globulin (SHBG). Low SHBG can make a man more susceptible to a myriad of other disease conditions.

Iodine and the Reproductive System

It's not just the thyroid that relies on iodine to do its job. Did you know that iodine is also housed in and used by the gut, brain, salivary glands, breast tissue, and the ovaries? Besides the endocrine system, the reproductive system absolutely needs iodine to function. Both women and men rely on iodine for gland nourishment and adequate functioning. Iodine deficiency in women has a more widespread effect than in men, since a woman's reproductive system is more complex.

The evidence is clear. When a woman is iodine deficient, she opens herself up to greater risk for a myriad of reproductive disorders. Here is a rundown of a few of the most common ones:

Fibroid tumors

If you are a woman in your 30s or 40s and discover you have fibroid tumors, your gynecologist may dismiss them as simply "part of getting older." They may tell you that the fibroids will probably disappear once menopause hits and to "just hang in there."

This reaction is typical in part because fibroids are so common. A 2003 study conducted by the National Institute of Environmental Health Sciences found that 70% of white women and 80-90% of African American women in America will develop fibroids by the time they are 50.[33]

What is common doesn't necessarily indicate what should be considered normal or healthy, however. Although direct scientific evidence linking iodine deficiency to fibroids is scant, what is completely clear is the link between fibroids and hypothyroidism.

One Austrian study conducted in 2014 found older women of African heritage who had low thyroid function had larger fibroid tumors than those without hypothyroidism. Another study conducted by the Catholic University of Korea School of Medicine linked thyroid nodules with uterine fibroids directly.[34] The connection between higher estrogen and fibroids is well-documented as well.

Adequate iodine supports thyroid function, which plays a part in regulating all hormones in some way. Getting enough iodine also supports estrogen balance in favor of the mildest form of estrogen, called estriol. The most aggressive form of estrogen, called estradiol (as well as estradiol-mimicking xenoestrogens created from environmental toxins[35]) is responsible for the estrogen imbalance that can lead to reproductive complications and disease.

Of the three kinds of estrogen in the body, estriol is the kind you want to have the most. Maintaining balanced iodine levels in your system can help you get there.

Polycystic Ovary Syndrome (PCOS)

PCOS is the formation of cysts on the ovaries, which can develop whenever hormone imbalance is present. It is caused by insulin resistance, obesity, genetics, and a host of other factors. PCOS can also occur because of iodine deficiency. For women, the ovaries contain the second largest store of iodine after the thyroid.[36] Just like the thyroid, it is vital that the ovaries get enough iodine to maintain balance.

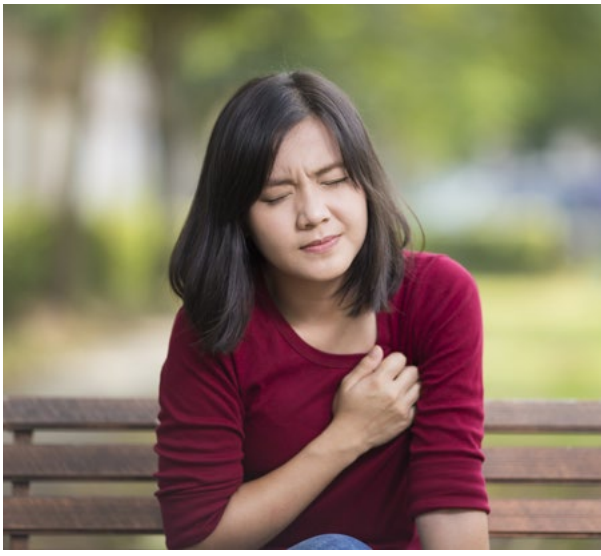
PCOS was first described in medical journals over 75 years ago. At that time, it was considered a rare condition. Now one in 15 women will suffer from PCOS in their lifetime, according to a report published in the *Journal of Clinical Endocrinology & Metabolism*.[37]

Is it a coincidence that while cases of PCOS have skyrocketed, there is also an epidemic of iodine deficiency in our world?

Fibrocystic Breast Disease

Also called benign breast disease, this is a condition that occurs when hormonally influenced and benign cysts develop in the breast tissue. The cysts, although not considered serious, can cause pain and tenderness.

Researchers have found clear evidence of the link between fibrocystic breast disease and low iodine levels. Studies over the last 30 years have shown that aggressive estrogen stimulation caused by lack of iodine can cause "microcysts" in breast tissue.[38]



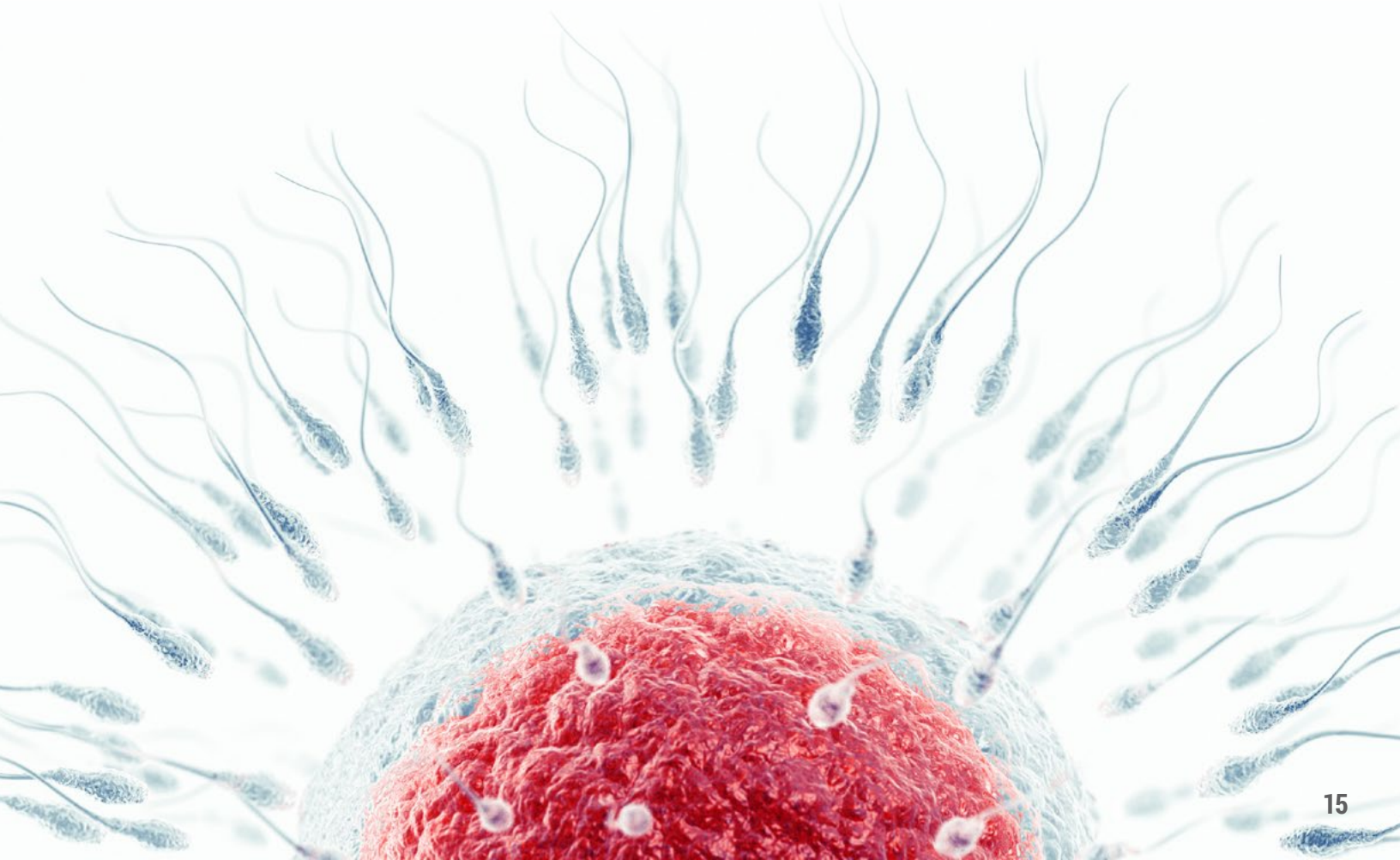
Besides the thyroid and the ovaries, the breasts store and utilize large amounts of iodine. When levels are low, the breasts compete for limited stores with the thyroid since both use the same iodine-transporting proteins.[39] Hyperplasia, or increased cell growth, can often result from iodine deficiency because deficiency can spur an increase in aggressive estrogens.

In addition, iodine provides a big antioxidant boost for the mammary glands. When these glands are iodine deficient, the breast tissue can become susceptible to oxidation. Hyperplasia, lipid oxidation, and all the other immune and endocrine system complications which can occur with low iodine levels create a situation ripe for abnormal cell growth in the breasts.[40]

Iodine and Fertility

A 2018 study conducted by the National Institutes of Health looked at over 450 women in the U.S. who were attempting to become pregnant. For women with moderate to severe iodine deficiency, a whopping 46% were less likely to get pregnant than those who had sufficient iodine levels.[41] Even women with mild (i.e. subclinical) iodine deficiency had increased risk of infertility, according to lead researcher Dr. James Mills of the U.S. National Institute of Child Health and Human Development.[42]

Once a woman does get pregnant, her body's need for iodine increases throughout her pregnancy. There is a reason why the CDC recommends a greater intake of iodine for women who are expecting. Iodine helps protect the mother against preeclampsia, extra sensitivities to toxins, and other complications that can affect the fetus and lead to obesity. Iodine also helps to protect the fetus from neurological complications.



Can a Person Have Too Much Iodine?

As with all nutrients, the right amount of iodine in the body is a balanced amount. Although the problem for most individuals is lack of iodine, overdosing on it is possible and can have side effects. Getting your iodine levels tested is the best way to know where you stand and how you can achieve balance. It is also possible to take the wrong kind of iodine, with potentially devastating effects on your health.

Something to keep in mind is that any kind of "organic iodine" or "elemental iodine" should NOT be ingested. This kind of iodine does not absorb into the system in a beneficial way and can burn tissue on contact. Other iodine sources that can cause negative effects when taken in excess are Pima syrup, radioactive iodine used in medical tests or sometimes for thyroid disease, Lugol's solution, and large amounts of potassium iodide from kelp.

In addition, some studies have linked high amounts of "iodate" found in table salt with gastrointestinal disturbance. Other symptoms of iodine overdose from these sources include stomach pain, dizziness and delirium, vomiting, shortness of breath, and fever.

The kinds of iodine that are considered safe to ingest are potassium iodide, sodium iodide (not in excess), and nascent iodine. Sodium iodide is the form of iodine most commonly found in commercial table salt. Nascent iodine, or atomic iodine, is the most bioavailable form of iodine, meaning it is the easiest for the body to absorb.

What About Hyperthyroidism and Iodine?

Graves' disease is the most common cause of hyperthyroidism[43] and is an autoimmune disease in which the thyroid produces too much of the thyroid hormone thyroxine. Weight loss, hyperactivity, anxiety, and fatigue are all symptoms of this condition. In extreme cases, Graves' disease can lead to cardiac shock, "thyroid storm," [44] and even death.

Graves', or hyperthyroidism, is often wrongly associated with too much iodine in the system. In reality, it is very rare for too much iodine to be the sole cause for hyperthyroidism. But because iodine plays a part in the production of thyroxine, it cannot be discounted as a factor for overproduction. If you suspect you have Graves' disease or hyperthyroidism, be sure to consult with a qualified health practitioner who can counsel you about iodine and other factors regarding your condition.

According to some experts, individuals with Hashimoto's thyroiditis can swing back and forth between symptoms of hypothyroidism and hyperthyroidism depending where they are in the cycle of antibody production and hormone release.[45]

Interestingly, research points to the fact that iodine can help to restore health from both hyper- and hypothyroidism. We have already discussed how the right amount of iodine can help bring balance to those who suffer from hypothyroidism, or Hashimoto's thyroiditis.

For hyperthyroidism, iodine can help to slow thyroid hormone release in the event of a "thyroid storm," where heart rate, blood pressure, and body temperature rise to dangerous levels. In conventional medicine, small amounts of radioactive iodine, or iodine-131, may be given to slow thyroid hormone production for those with thyroid disease.

Again, when it comes to iodine, it is all about balance and the body's ability to absorb the nutrient. When your body gets the right amount of "food" for the thyroid and other glands in your body, then real healing begins.

The Solutions

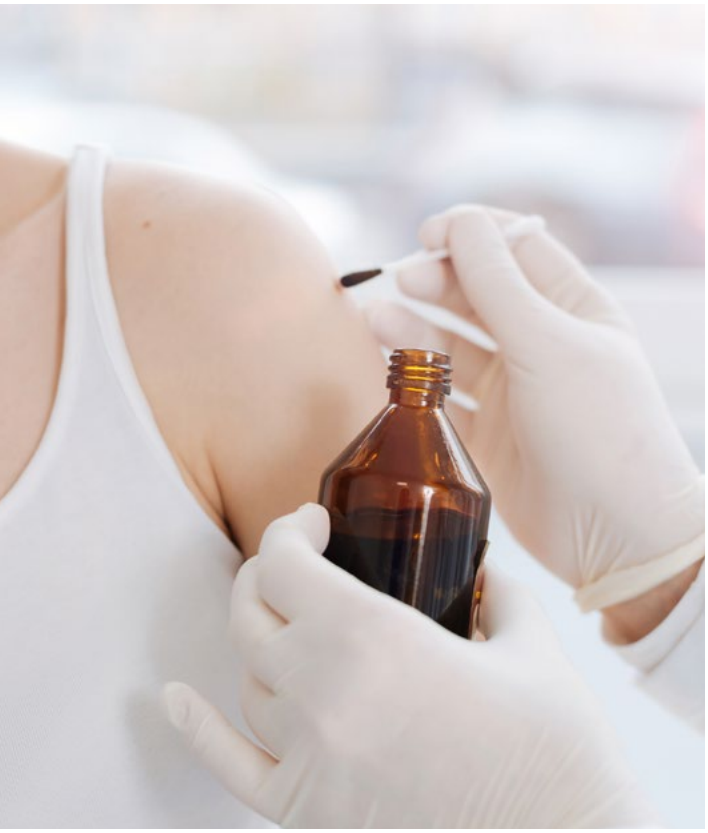
If you are struggling with the symptoms mentioned earlier or you think you may be iodine deficient for another reason, you should know that there are MANY things you can do to turn your situation around and start feeling better.

Testing Your Iodine Levels

Before we dive into solutions for iodine deficiency, however, let's first discuss the available options for iodine level testing, as well as tests for environmental toxins which may block iodine absorption.

The Iodine Patch Test

The first way to check if you are iodine deficient is to perform the "iodine patch test." To perform this test you first need to obtain a tincture or solution of iodine. Most pharmacies and drug stores sell this. Be sure to get an iodine solution that is yellow in color.



Next paint a 3-inch by 3-inch patch on your skin, preferably either on your abdomen, inner thigh, or inner forearm where the skin is especially absorbable. Monitor the patch over the next 24 hours to see if the color changes. If the yellow is gone (and especially if it fades quickly), there is a good chance that you are iodine deficient.

There are a few things you should know about the iodine patch test, however. Keep in mind that it is not one hundred percent accurate nor reliable. To date there have been no studies which show its effectiveness in determining iodine deficiency.

To really get a handle on where you stand with your iodine levels, it is best to get an "iodine loading" test done through your integrative doctor, holistic healthcare practitioner, or through a qualified lab directly.

The Iodine Loading Test: Discover Both Iodine and Toxin Halide Levels

The iodine loading test[46] was developed in 2004. When done through a quality lab, this test can be fairly accurate in determining iodine deficiency. Here is how it works: A person ingests a 50 mg dose of supplied iodine or iodide. They then collect all of their urine in a jug for a 24-hour period, as per instructions. It is important to follow the directions closely and collect all urine excreted within this time period, since not doing so may throw the test off. The patient then sends a sample of this collected urine to the lab for evaluation.

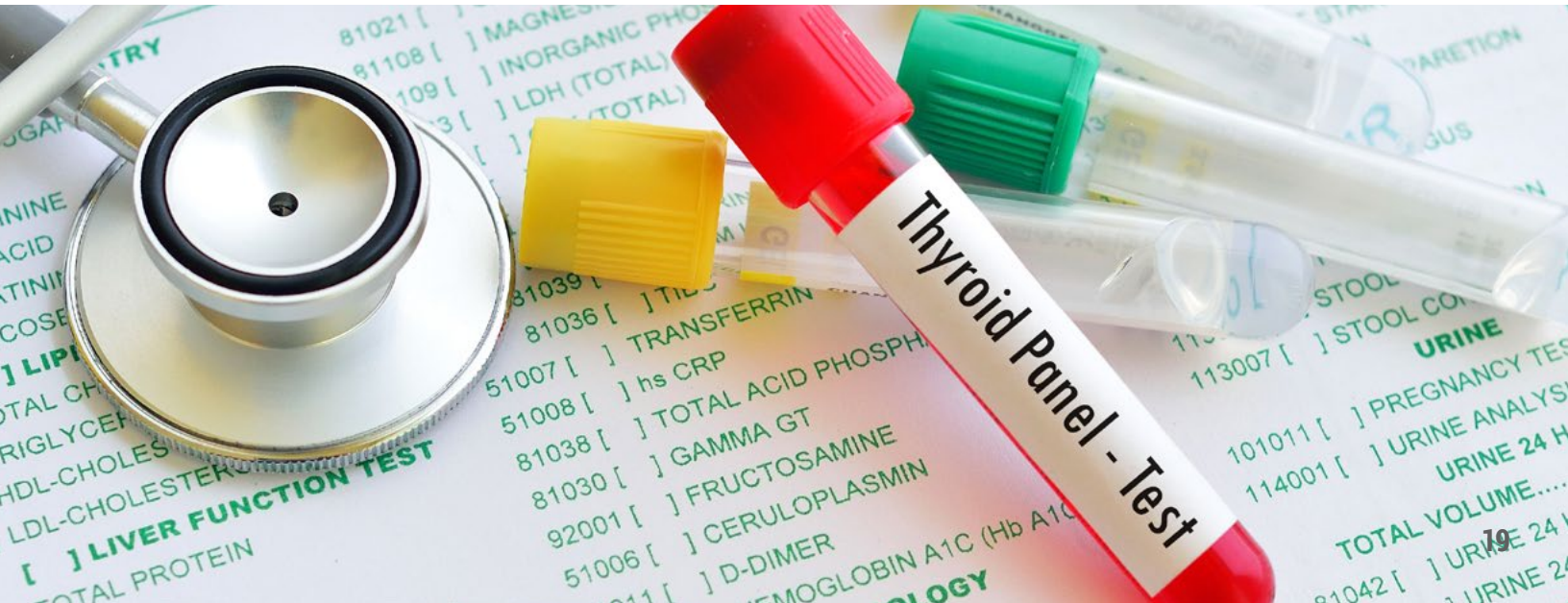
There are a number of labs that can supply you with an iodine loading kit, which can be sent directly to your home. You then send your sample back via U.S. mail. An individual taking the test who excretes less than 90% of the iodine dose within the 24-hour period is considered iodine deficient.

An extra benefit with this kind of test is that many labs allow you the option of also testing for bromide, chlorine, and fluoride with the same sample. Testing for halides can also be done separately. When you are armed with information about your iodine levels as well as iodine-blocking halides, you have a baseline to work from as you put together an iodine protocol.

Other Iodine Testing Options

These include one-time urine samples and blood tests. The urine sample can be done through a conventional doctor or clinic, although it will not be as accurate as iodine loading. Blood tests are often not available through a doctor, and you may have difficulty finding a lab to perform this test. One-time urine sample tests and blood tests will also not give you the option to test halide levels.

No test is perfect, but if you want the most accurate measurement of both beneficial iodine and iodine-blocking halides, it is worth the time and effort to get an iodine loading test done.



You've Got Your Test Results. Now What?

Testing is important when it comes to iodine. This is because the "iodine sweet spot" is when your body has just the right amount to supply all that it needs for balanced energy and healing, yet not so much that the excess throws glandular processes and hormones out of balance.

It is important to keep in mind that ideal iodine input from food and supplements will be different for everyone. In addition, sensitivity levels may differ over time within each person as they begin to clear away halide toxins and employ other healing modalities which can contribute to better nutrient absorption

Detoxing the Halides

Remember that it won't do any good for you to up your iodine intake either through eating an iodine-rich diet or by taking supplements if your cellular "parking lot" for iodine is filled with toxic halides.

Over time, increasing your intake of quality, safe iodine itself will greatly help remove dangerous halides from your body.[47] You can give your system a hand in this, however, by limiting your exposure to products that contain them and using gentle detoxing protocols for fluoride, chlorine, and bromide. Here are a few tips on how you can do this:

Fluoride

As you've already learned, fluoride is prevalent in about 65% of the U.S. municipal water supply. The first step in reducing your fluoride load is to get a high-quality water filter for your home. Not only do you want to filter the water that you're drinking, you'll also benefit from installing a filter on your showerhead.

Remember that you can absorb substances through the skin too. You also breathe in the toxic fumes from showering or bathing in hot water as the chemicals evaporate into the air. Back in the mid-1980s, the American Chemical Society stated that showering in tap water can actually lead to higher risk of toxic exposure than drinking that same water could.[48]

Other common sources of fluoride are toothpastes and cleaning solutions found at the dentist's office. Make sure that you purchase toothpaste which says "fluoride free" on the label and that you tell your dentist you do not want them to use products containing fluoride on you. A good resource to help you find a holistic dentist who will be on board with this is through the Holistic Dental Association website.[49]

Finally, there are hidden sources of fluoride that you may not be aware of. You will want to avoid these as much as possible as well. We mentioned earlier how modern iodized salt manufacturers often use fluoride in processing. Here are some other commercial products which may contain fluoride:

- Some carbonated sodas and bottled fruit juices[50]
- Some canned products, such as canned tomatoes
- Certain baby foods
- Some alcoholic beverages, especially commercial wines
- Some grain products, such as dry cake mix and boxed cereals
- Mouthwash

Fluoride Detox Tip

Besides iodine supplementation, did you know that doing some form of physical activity every day can help remove fluoride from your body and reduce its toxic effects? It's true, according to a 2013 study published in the *Journal of Endocrinology*.[51]

Chlorine

While most people think of swimming pools and chlorine bleach when it comes to exposure to this toxic halide, in reality the biggest source of chlorine toxicity in the U.S. is tap water – and overexposure can wreak havoc on your respiratory system as well as your iodine stores.

Chlorination of drinking water in America started in the 1890s as a way to stop diseases that begin and grow in water, such as cholera, typhoid, and salmonella.[52] In this way, chlorine inoculation in the American public water supply was a success.

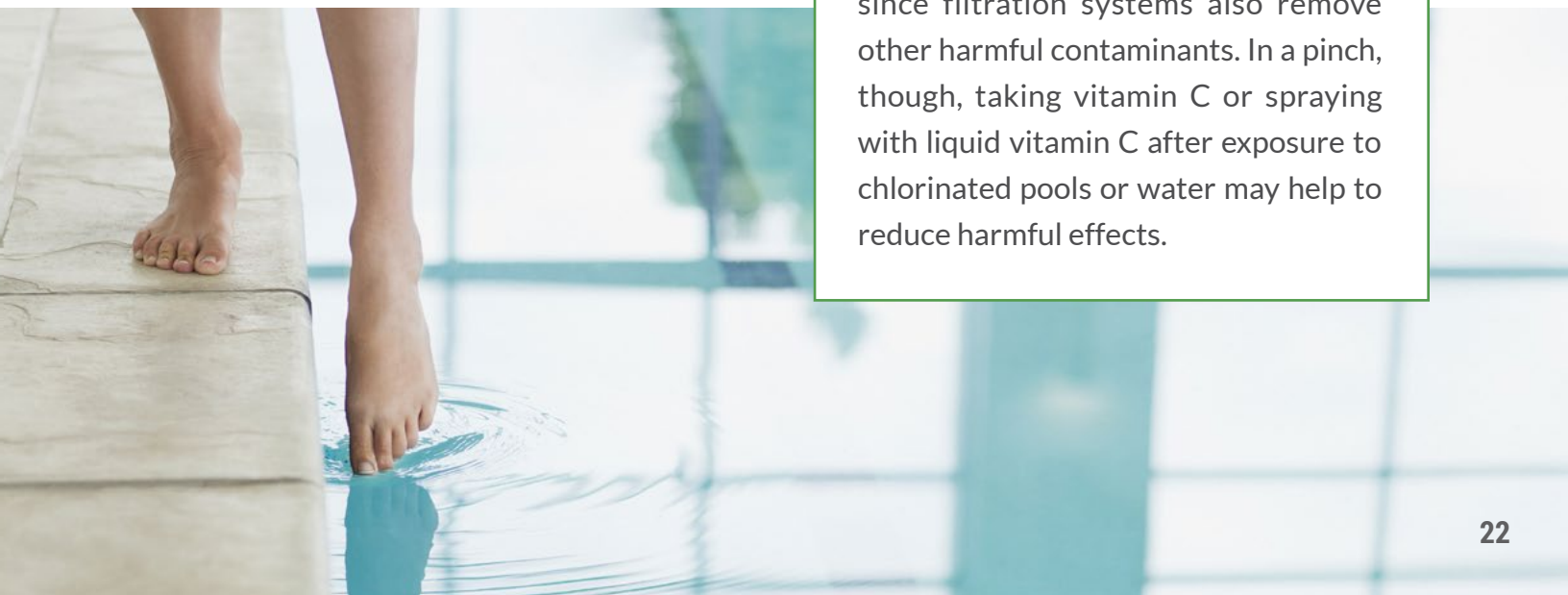
However, many experts today agree that overexposure to chlorine through unfiltered tap water creates a higher risk for a number of other serious health issues. This is because chlorine can combine with other organic contaminants in water to produce chloroform.

Chloroform is classified as a "probable human carcinogen" by the Unites States Environmental Protection Agency. [53] According to the EPA, "chronic (long-term) exposure to chloroform by inhalation in humans has resulted in effects on the liver, including hepatitis and jaundice, and central nervous system effects, such as depression and irritability."

Chlorine Detox Tip

While the best solution to chlorine overexposure is to simply stay away from unfiltered water sources, this is sometimes hard to do. Some substances can neutralize chlorine in water and in our bodies. One substance that has been known to do this is vitamin C. A 2005 report by the U.S. Department of Agriculture (USDA) Forest Service found that just one gram of either ascorbic acid or sodium ascorbate had the ability to neutralize 100 gallons of water, bringing chlorine levels down to just one P.P.M. (part per million).[54] This is the standard for U.S. public drinking water, although legally municipalities can go up to four P.P.M.

Keep in mind that vitamin C is not a substitute for a quality water filter, since filtration systems also remove other harmful contaminants. In a pinch, though, taking vitamin C or spraying with liquid vitamin C after exposure to chlorinated pools or water may help to reduce harmful effects.



Bromide

Perhaps the least known of the halides, bromide is the one that often goes undetected. Make no mistake, however. Bromide toxicity is on the rise as it is a cheap ingredient used for dozens of industries, from car manufacturing to commercial bread production.

Here are a few products that often contain disturbingly high levels of bromide.[55]

- **Baked goods.** Bromide is a cheap dough conditioner used in many commercial pastry items and breads.
- **Plastics**, such as those used to make computers and new car interiors.
- **Pesticides**, in the form of methyl bromide used on commercial strawberries. Always buy organic!
- **Soft drinks** that contain BVOs, or brominated vegetable oils. Fruit-flavored sodas such as Mountain Dew are most likely to contain BVOs.

Bromide Detox Tip

Thankfully, bromide is pretty easy to flush from your system. Besides upping your iodine level, you can also do a series of "salt flushes," using pure Celtic sea salt (not commercial salt) and water. Instructions for the salt flush can easily be found online, but be sure to check with your doctor or holistic practitioner if you have concerns about sodium intake.

- **Some medications** such as asthma inhalers, nasal sprays, and anesthesia agents.
- **Fire retardants** used in fabrics, carpets, mattresses, furniture, and some house paints.
- **Swimming pool** and hot tub treatment products.

In addition, research is confirming that bromide may be even more dangerous for your iodine stores and thyroid health than previously thought. The Bromide Dominance Theory promotes the idea that the particularly aggressive way in which bromide pushes iodine out of the body and takes over its cellular receptor sites may be the most important underlying factor for the iodine deficiency epidemic.

Lynne Farrow, health investigator and author of *The Iodine Crisis*, poses the question: "If iodine deficiency is the underlying cause of many diseases, is bromide 'the underlying cause of the underlying cause?' "[56]

9 More (Little Known) Benefits of Iodine

We've covered a lot in this special report so far! By now you know the repercussions of low iodine levels and may even be evaluating how all this pertains to your own health and that of your family. You've also learned some ways to rid yourself of nasty halide toxins that can wreak havoc on your entire body.

Now, let's take a quick look at some other little-known ways iodine can support good health. You may be surprised at some of the things on this list!

1 Iodine Supports Your Liver

This first one is a no-brainer since iodine is necessary for the healthy functioning of every organ in the body. The positive effects it can have on your liver as well as your kidneys bear mentioning again, since iodine is responsible for proper communication between your thyroid and liver as well as your thyroid and kidneys.

2 Iodine Keeps Your Hair Shiny and Your Skin Glowing

Iodine can help your skin maintain that "healthy glow" and keep your hair from thinning! This is because iodine supports cellular rejuvenation[57] in addition to supplying nutrients to the thyroid gland, which is responsible for preventing hair loss.

3 Iodine Is as Powerful an Antioxidant as Vitamin C!

Iodine can help reduce damage caused by free radicals, which may eventually lead to gene mutation and abnormal cell growth. It can also help to clean the blood of pathogens and has reported anti-inflammatory benefits.[58]

4 Iodine Is Essential for Gut Health

Iodine is also important for gut health, since it is first absorbed by the body in the small intestine where it is then transported into the bloodstream. As far back as 1960, the Royal Society of Medicine[59] published information linking iodine to the ability to kill off bacteria and viruses in the stomach as well as deactivating chemical and biological toxins. This information was known half a century ago!

5 Iodine Is an Antibacterial and Antiseptic

Iodine is a sterilizer that can kill unwelcome bugs inside and outside the body. It is ideal for cleaning wounds, can purify water in a pinch, and has been used after oral surgery to help with the first stages of wound healing.[60]

6 Iodine Helps to Lower Stress Responses

Cortisol levels play a major part in hypothyroidism. Inadequate amounts of cortisol can lead to lack of thyroid hormone absorption in the cells. On the other hand, too much cortisol means you are constantly in "fight or flight" mode. This can send all of your hormones spinning out of control.

Iodine helps to regulate all of this. With the right amount of iodine in your body, you can maintain balance.[61] You may still get stressed when someone cuts you off on the highway, but you're less likely to let it ruin your day.

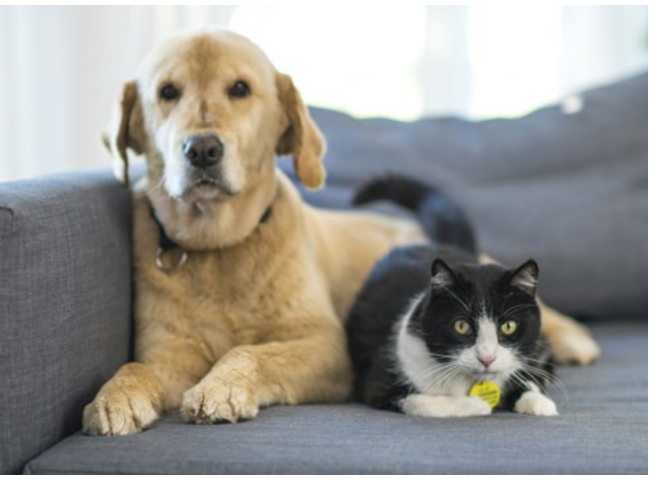
7 Iodine Protects You From Radiation

Iodine can help protect you from UV radiation coming from the sun. As you will learn later, it can also be a lifesaver if you are ever exposed to high amounts of radioactive iodine-131. In today's world, however, radiation comes in many forms.

For example, have you ever wondered what effects going through those huge security scanners at the airport will have on your health? If you are a frequent traveler, this applies especially to you. TSA scanners emit "terahertz radiation." A 2008 study conducted at Tel-Aviv University linked airport X-rays to genetic mutations.[62] Iodine can help protect you against this when you travel.

8 Iodine Helps With Mental Focus

According to the World Health Organization, iodine deficiency is the "world's most prevalent, yet easily preventable, cause[s] of brain damage."[63] The happy flip side to this sad fact is that upping your iodine levels can give your brain a significant and very noticeable boost!



9 Iodine Is Important for Your Pets Too!

Just like in humans, dogs and cats need iodine for their metabolism and thyroid function. And just like humans, pets can be affected by toxic, iodine-blocking substances and poor diets which can leave them deficient. Fish like wild-caught salmon or sardines (not fish-based dog food) as well as sea kelp can be good additions to your pet's diet. Your vet can also perform an iodine test to determine if your furry friend is iodine deficient.

Food Sources of Iodine

Do not rely on iodized salt to get your daily supply of iodine! Commercial iodized salt is manufactured with iodine-blocking halides as well as other toxic chemicals. Opt for Himalayan pink salt or Celtic sea salt instead and choose whole foods that are rich in iodine and other essential phytonutrients.

Here are just a few foods that are good sources of iodine:

- Cranberries
- Sea vegetables such as wakame, hijiki, kombu, and kelp
- Navy beans
- Raw cheese
- Eggs
- Potatoes
- Yogurt
- Tuna
- Lima beans
- Peas
- Corn
- Raw milk
- Prunes
- Wild-caught cod
- Wild-caught salmon
- Spirulina

In an ideal world it would be best to get all the nutrients your body needs from whole food sources, since many natural foods contain the "whole package" of corresponding nutrients needed to process and break down them all in the body. For example, many sea vegetables contain high amounts of iodine, as well as the potassium and selenium needed to process and absorb it in the body.

For many people, however, getting enough iodine through food alone may not be possible. If tests show that you are in need of extra iodine, supplementation with the right kind of iodine can help significantly.

The Best and Worst Iodine Supplements

The many kinds of iodine supplements out there can be downright confusing – and the quality levels of the various brands are as ample as the choices. The first step in choosing an iodine supplement is to go for quality above all else. It is worth it to spend a little extra on an iodine supplement that has been tested for contaminants, especially if it is sourced from sea kelp. In addition, make sure that your brand has been checked for pesticides and molds.

Here is a basic rundown of the major kinds of iodine on the market today.

Potassium Iodide Tablets, Pills, and Gel Caps

Iodine that comes in this form is usually potassium iodide (KI) sourced from sea kelp. Why potassium? Potassium and sodium are solid "carriers" for iodine as it enters the body. Without them, the system would not be able to absorb iodine in a healthy way. Organic iodine that is not mixed with a "carrier" is dangerous to ingest. Including another binding mineral like potassium helps the iodine become stable and absorbable to the body.

Potassium iodide tablets are sometimes taken to curtail the negative effects of radiation exposure. Research has concluded that while potassium iodide cannot completely block radioactive iodine (also called iodine-131, similar to what is still leaking out of the Fukushima Daiichi Nuclear Power Plant) from being absorbed into the body, it can prevent its uptake by the thyroid right after exposure. This is why the World Health Organization includes "iodine prophylaxis" in their emergency protocols after a nuclear accident. By flooding the body with potassium iodide for 24 hours after exposure, the thyroid becomes "full" with healthy iodine and cannot take on any more, radioactive or otherwise.

Those who are exposed to iodine-131 radiation and do not follow this protocol are at great risk of thyroid cancer and other serious conditions. Researchers of a 2018 report published in the journal *Thyroid* suspect that the rising rates of thyroid cancer among young people in the Fukushima Prefecture of Japan may be a direct result of ongoing exposure to iodine-131, which is now leaching into the Japanese food and water supply.[64]

Molecular potassium iodide is another form of mostly kelp-based iodine. It is also called sodium iodide, molecular iodine, potassium iodate, sodium iodate, or sodium iodine. (Molecular and other iodine pills may also contain a combination of these substances). Molecular iodine has been the focus of numerous studies examining how it may inhibit the growth of abnormal cells in the breasts as well as protect against fibrocystic breast disease (FBC).[65]

Despite all the benefits of potassium iodine, a major downside is that only about 20% is actually absorbed into the body.

An Important Note About SSKI

SSKI is a type of potassium iodide that is administered in liquid form. SSKI is not meant to be a daily supplement. Instead, it is typically used under the guidance of a healthcare provider for specific conditions, including:

- As an expectorant for respiratory conditions
- As a topical agent
- To curb out-of-control fungal growth
- For radiation protection
- To prepare for surgery
- For very severe iodine deficiency that has caused neurological problems, especially in children

- To stop a "thyroid storm", which occurs in people with Graves' disease when the thyroid releases too much thyroxine.[66] SSKI is used to stop the secretion of this hormone.

Alcohol and Glycerin-Based Iodine

Besides pills and tablets, daily-use iodine supplements also come in liquid form. There is a definite advantage to taking iodine in this way. The main one being that liquid iodine can assimilate into the body rapidly and is very bioavailable. Liquid iodine is created using either alcohol (grain or ethanol) or glycerin. Unfortunately, there are some disadvantages to both.

For obvious reasons, alcohol-based liquid iodine may not be suitable for young children and animals. Furthermore, many individuals abstain from drinking alcohol for religious or substance abuse reasons, so this form of iodine would be inaccessible to them as well.

Glycerin, on the other hand, does not pose this issue and has a longer shelf life than alcohol-based products. However, many glycerin-based products are made from animal products which makes them unsuitable for a vegan or vegetarian consumer.

The ideal option that remains is glycerin-based liquid iodine that is vegan- sourced, organic, and not made using genetically modified soy or corn.

Nascent Iodine

According to many experts, the form of liquid iodine known as "nascent iodine" (also known as atomic iodine, monatomic iodine, atomadine, or colloidal iodine) represents the best choice of iodine supplementation for most consumers.

Here are six reasons why:

1 The term "nascent" indicates that this kind of iodine contains an odd number of electrons. Why is this important? An incomplete number of electrons in any substance gives it a special electrical charge which packs an extra nutritional punch.

2 Unlike other forms of iodine, nascent iodine does not break down in the digestive tract. This makes it completely available for the areas in your body that need it most – the thyroid and the reproductive glands.

3 Nascent iodine is highly absorbable, which is great for a tired thyroid in need of increased iodine stores to maintain homeostasis.

4 Nascent iodine has actually been around since the 1920s. Before the heyday of pharmaceuticals, nascent iodine was one of the go-to remedies for skin issues and infections. It is a great salve to apply to burns and cuts.

5 Because it is so bioavailable, the antiseptic properties of nascent iodine are superb for helping to fight respiratory infections, urinary tract issues,[67] and harmful bacteria in the gut.

6 Nascent iodine helps to support balanced blood pressure levels.[68]

What's Next? Creating Your Plan of Action

Now that you know the real deal when it comes to all the benefits of iodine for every single cell in your body, what will be YOUR game plan when it comes to iodine?

To recap, here are some steps you may want to consider:

1

Get your iodine levels tested and get tested for halide toxicity as well. The iodine loading test is a great way to find your levels.

2

Clear out those halides! These include fluoride, chlorine, and especially bromide, which is particularly aggressive and toxic to the body. The best way to detox from these dangerous, iodine-blocking substances is to steer clear of them!

3

If you are iodine deficient – which most people are – then there are many things you can do to increase your levels. Clearing out the halides is one of them. Another is upping your consumption of iodine-rich whole foods.

4

Finally, if you determine iodine supplementation is necessary or beneficial, liquid nascent iodine is the best overall solution in terms of absorbency and bioavailability for every gland that needs it.

Iodine

NASCENT IODINE

Powerful Healing for Your Thyroid and More

As you now know, iodine deficiency is a worldwide epidemic today. And if you are one of the two billion people who suffer from getting too little of this essential nutrient, it's affecting your reproductive health, thyroid function, and immunity. In fact, every cell in your body needs it.

While there are a variety of factors causing this problem, there are ways to fight back. First, get your iodine levels tested. Limit your exposure to dangerous halides. And increase your intake of iodine-rich foods like seaweed, wild-caught salmon, and spirulina.

When you do, you'll support your sharp thinking, healthy hormone levels, and much more.

But it's impossible to avoid ALL of the iodine-blocking halides in our environment. They're everywhere... including our water supply, plastics, and even furniture. Plus, eating enough iodine-rich foods to fix an iodine deficiency can be a challenge. And while iodine supplements are a great option, many of them can be poorly absorbed... and some may even be contaminated with toxins.

The good news? There's an easy way to get all the iodine you need for renewed health, energy, and vitality. **Iodine** from **Organixx**. Just 3 drops a day gives you 1,950 micrograms of iodine – 13 times more potent than iodized table salt. And, because it's a pure, nascent form of iodine, Organixx Iodine is highly bioavailable... giving your thyroid faster relief from toxin overload.

Organixx Iodine is also 100% USDA Certified Organic. So you can rest assured that you're getting a completely pure form of iodine, free from dangerous toxins. Plus, this easy-to-take supplement comes wrapped in vegetable glycerine for better digestion and absorption. As a result, Organixx Iodine is the purest, most bioavailable, and by far most beneficial iodine supplement for your body available anywhere.

To keep your metabolism strong and all of your cells working together effectively, try Organixx Iodine. **Each bottle comes with our iron-clad 100% ONE-YEAR Money-Back Guarantee. If you're not happy with the results, just contact us for a full refund. No questions asked.**

To learn more about **Nascent Iodine**, go here:
Organixx.com/Iodine

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Our Commitment to You:

1. Only deliver supplements that can really make a powerful difference in your health and life.
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3. Use proprietary fermentation processes to make our supplements extremely bioavailable. (This ensures the maximum amount of nutrients from our supplements are actually utilized by your body - versus being wasted.)
4. Deliver the highest quality, most effective supplement blends available. We started this company because of the huge demand for quality supplements at affordable prices. We keep our markups extremely low, because we're a mission-based company with hopes of healing the world.

Now here's the great news… we're constantly improving and making our supplements even better.

We've received a LOT of overjoyed feedback from others just like you, and the one thing we keep hearing over and over is how pleased they are to finally find a supplement company 100% committed to using the purest, non-GMO and USDA Certified Organic ingredients wherever and whenever possible!

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