

Iodine: The Tale of the Shrinking Violet

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Iodine is a fairly uncommon element found in the earth's crust and oceans that is essential for human health. It is not only essential for proper thyroid and glandular function; it also has been recently discovered to be essential to the body's innate ability to ward off cancer.

Over the last several decades, Iodine has gotten a bum rap as being a "dangerous" element. It is only dangerous if you do not have enough! As we shall see, the irrational fear of iodine by the medical establishment is based on poor science with an agenda (like so many health decisions and advice dispensed today it involves money).

Iodine was accidentally discovered by a French dude named Bernard Courtios in 1804. He was monkeying around trying to make better gun powder and while mixing chemicals, noticed a purple vapor which turned out to be iodine. Interestingly, he also discovered morphine. Anyway, the newly discovered element was named Iodine after the greek word "iodes" meaning purple (or in Chicago the word means to pay back). Another Frenchman named Coindet (it's a Chicago thing...you wouldn't understand) discovered that it worked wonders in treating goiter. It was soon all the rage and physicians started using it successfully for many ills.

Iodine was in every household and pharmacy for generations in the form of Lugol's Iodine solution (yes another Frog). Many people took daily doses of this iodine to ward off illness. It is interesting to note that South Carolina was called the "iodine state" due to the high amounts of iodine found in the soil and vegetables grown there. They even had that printed on it's license plates as the states motto before becoming the cockroach..er... I mean the Palmetto state.

Iodine was so successful in treating thyroid problems and goiter that it was soon put into everything. Of course we all know about salt but it was also the primary anti-caking agent used in bread and flour products until the 80's (see it wasn't only bad music that mares that era). Everyone was happy. So what happened??

Well.....Between 1917 and 1924 the salt industry (with marketing help from the government) did a hatchet job on iodine solution in favor of iodized salt (which of course they could sell for a profit). In addition, in 1948 a couple of bone head scientists did a really bad study on rats. They concluded that too much iodine blocked the thyroids ability to absorb it.

What the study showed is that the thyroid gland stops absorbing iodine once it is full. So to make a long story short, iodine started getting a bad rap in the medical books and amongst doctors. The government started backing off on requiring iodine in food. In fact in 1980 they allowed the food industry to replace iodine with bromine in processed foods. This is madness as Bromine is a known toxin (more on this later).

So think of that next time you chomp on some Pasta. In addition, the salt you find in processed foods also no longer contains iodine. Iodine, Bromine, Chloride, fluoride are collectively known as the Halides and are in the same chemical family. They compete with each other just like real brothers do. And as in any family they have one bad apple named Bromine. Fluoride can only be tolerated in very small amounts and Chloride needs to come with friends, never alone.

So here is the recent data

- 1) Iodine intake has dropped from 500-800 mcg per day in 1940 to less than 135 Mcg per day in 1995 (I'm sure it's worse now).
- 2) Modern farming has made most productive soils very deficient in iodine so it is no longer in your produce.
- 3) Recent studies show 75-95% of ALL people in the US were iodine deficient.
- 4) Exposure to Bromine, Chloride, Fluoride, pesticides and Perchorate (from fuel) compete with Iodine uptake in the body and glands.
- 5) The use of depleted uranium weapons has resulted in increased levels of highly toxic radioactive iodine in the atmosphere.

So what does Iodine do and what happens to you if you do not have enough? Again thyroid hormone is basically made out of protein and Iodine. The T4 and T3 you read about stand for a molecule with either three or four atoms of iodine attached to it. Your thyroid simply will not work without enough iodine. Worse yet your body is prone to

forming nodules, goiter and cancer without it. It also is the only essential trace element needed to form other hormones. It is found in every other organ and tissue in the body including liver, lung, heart, adrenal glands, fat, muscle, skin and the stomach. Your thyroid only stores about 3% of the bodies Iodine. The majority is stored in your skin , muscles and fat. Iodine is essential for the proper development of the fetus, brain growth and development, proper cognition (a fancy word for thinking), metabolism and temperature regulation. Many studies have shown that the following list of ailments is strongly associated with iodine deficiency.

- Fibrocystic breast
- Ovarian cysts and polycystic ovarian syndrome
- Hypo and Hyperthyroidism
- Cognitive dysfunction (Brain fog)
- Diabetes
- Heart Arrhythmias
- Breast Cancer

So you see how the rampant iodine deficiency may explain away why you see what you see at Wal-Mart!! In my own experience, I have seen depression, anxiety, ADHD, ADD, anger issues; dementia and “grandpa is losing it” all miraculously improve with proper attention to iodine, thyroid and adrenal function.

Iodine deficiency manifests as “brain fog”, headaches, temperature problems, sweating issues, muscle pain and fatigue. It can lead to impaired growth and neurological

development, which can damage the brain. Depending on the stage of development and severity of iodine deficiency, it can lead to a host of health problems, ranging from mild intellectual impairment to severe mental retardation, growth stunting, apathy, and impaired movement, speech or hearing. Bottom line, most health experts feel iodine deficiency the most common preventable cause of mental retardation in the world and Americans are not immune. Because of decreased production of thyroid hormones, iodine deficiency may result in a goiter. In addition, iodine deficiency predisposes you to breast, prostate, thyroid, and female reproductive cancers. There are also some studies linking it to multiple sclerosis and SIDS (sudden infant death syndrome). Guess what chemicals are used in flame retardants for infant mattresses?

Now, a special mention regarding some exciting research regarding Iodine and breast cancer. As you know, the rate of breast cancer is skyrocketing in the USA and even 18 - 20 year old girls are being diagnosed. However, Japanese women have a very low rate of breast cancer (until the move here) and consume on average 13-14 mg of iodine per day from food sources. Could this all cancer be due to too much exposure to toxins in the presence of low iodine? Many researchers have come to that conclusion.

It involves the conversion to T4 to T3. Have you ever wondered what happens to the extra Iodine molecule once it is cleaved off the T4 (See my video). Well it turns out it complexes with some proteins in your cells and causes a little something we call Apoptosis. That means “programmed cell death”. Yes indeed, that little iodine molecule destroys abnormal cells before they get out of hand. There is a complex process called

the Sodium Iodine Symporter (NIS) that brings iodine into the cell. This symporter uses TSH to help get the stuff inside of cells. It is well observed that folks who start taking Iodine have an increase in TSH. This is a normal response to increased iodine and does not mean your thyroid is checking out!! It means that Iodine is checking in.

This NIS mechanism can be manipulated with B vitamins and sea salt to work better. So if you decide to take Iodine, you need to take the right kind of B vitamins. This is not optional as the iodine will just float around causing problems if it does not get into the cells. Specifically you should take B2 100mg and B3 500 mg twice daily. No flush Niacin (B3) appears to work well in this situation.

OK, so you are on board with iodine being a good thing. So how much and what kind should I take?

There are two kinds of Iodine that the body uses, elemental Iodine and Iodide. Different glands and tissues in the body prefer one over the other. For instance the breast prefers elemental iodine while the thyroid likes the salt form called iodide. There is also iodine complexed into foods.

For supplementation, it is important to get both kinds of iodine. Luckily Lugol's solution and Iodoral have both. At this point it should be noted that the iodine in iodized salt is not very well absorbed. Additionally, refined salt is not exactly a health food. Optimally, you should use unrefined sea salt and iodine supplementation to balance the body.

Regarding dosing, many experts are now advocating much higher doses than in the past. Studies by Doctors Abraham and Brownstien (not French) have shown that many people need up to 50 mg of iodine per day for 2-3 months to achieve total body saturation. It seems that 12.5 mg of iodine (2 drops of Lugol's or 1 tablet of 12.5 mg Iodoral) is a good maintenance doses for most folks once their iodine stores are back up to normal.

So should I just take a bunch on Iodine?

This is a definite no. There are several concerns regarding the taking of higher dose iodine (we are talking over the RDA limit of 150 mcg). They include

- True allergy to Iodine
- Hashimoto's or Graves disease
- Iodine induced hyperthyroidism
- Iodism
- "Detox" reaction to iodine

So, let's talk about allergy. True allergy to elemental iodine is almost non existent. Many people think they are allergic to iodine if they are allergic to sea food or have had bad reaction to radioactive IV contrast dye used in Radiology. Bottom line is if you can eat iodized salt, you are probably not allergic to iodine.

Intolerance to iodine is a bit more common and includes rash, headache, soreness in the throat, fatigue and head congestion. You should stop Iodine if these occur. True anaphylactic reaction to iodine is extremely rare.

With Autoimmune Thyroid problems (Graves, Hashimoto's) there is a lot of information on the web cautioning against its use. For 100 years iodine was the treatment for these conditions. It is true that some people have worsening problems with prolonged use of iodine but by and large most people have good results with autoimmune thyroid problems. Testing dose should not present a problem but long term treatment in this setting should only be done under the care of a knowledgeable holistic practitioner.

On occasion, I will have a patient start iodine and subsequently develop heart palpitations, insomnia, sweating and nervousness. This usually responds to adjusting the dose and frequency of iodine. The one major concern is that if a patient has what is called a functioning adenoma of the thyroid; iodine can be like throwing gas on the fire.

These folks will usually feel better but their labs will show a marked suppression of TSH with elevated T4 and T3. The iodine did not cause the adenoma (in fact long term lack of iodine did) but none the less, you should stop taking iodine and see your physician if this happens. Remember, the usual lab response to iodine is an INCREASE in TSH levels.

Iodism is when the dose of Iodine is too high. This causes headache, acne, salivation and a metallic taste in the mouth. This simply tells you to again stop iodine and restart with lower doses and increase gradually.

Now the “Detox” reaction is one I see all the time. It has to do with the toxic amounts of Bromine and Flouride we all carry with us. Iodine pushes these toxins out of the cells and can cause fever, headaches, muscle aches, flu like symptoms, fatigue and diarrhea. Detox reaction is usually blunted if you take the B2 and B3 along with ample sea salt and preload with Selenium 200 mcg per day for at least 10 days prior to longer term iodine use. Please see my video explaining how your thyroid works.

So how do I test?

This is real easy. Unless you have a true allergy to Iodine, then anyone is a candidate for testing. It is a simple 5 step process.

1. Order the test kit. This includes mailing, sample jar, and four 12.5 mg iodine tablets.
2. Discard first morning urine on the day of testing.
3. Take the 50 mg of iodine (four 12.5 mg tabs) with a glass of water.
4. Collect all urine for 24 hours (don't spill !!!)
5. Mail back urine sample in prepackaged envelope.

Now you just wait 10-14 days and you will get your results back via email.

So here is the bottom line:

- Iodine is essential for human health
- Most people running around are iodine deficient

- Iodine intake has dropped dramatically while exposure to chemicals toxic to the thyroid has increased dramatically thus increasing the need for Iodine.
- Thyroid problems and cancer are on the rise due to lack of iodine.
- Testing is relatively easy and inexpensive
- You should test before embarking on high dose supplementation and test after 2-3 months to see if you are still in need.
- You need to test your TSH and Free T3 both before and after starting high dose iodine to assure you are responding correctly.
- Do not take iodine without first taking selenium, sea salt and the key B vitamins as outlined on my “Thyroid Starter” sheet which is enclosed with all test results.

You will find test kit listed on our website as Total Body Iodine 24 hour urine test kit.

I truly hope this information has been helpful. If you have any questions, contact me through the iwantmyt3.com web site.