Open Letter to Dr. Mercola
By Gabriel Cousens, MD, MD(H), DD
Edited by Nonnie Chrystal

Dear Dr. Mercola,

I have great appreciation for the good information you bring to the public as well as for your stances in favor of labeling GMO foods in California and against vaccinations. However, recently you made a statement that the highest amount of daily iodine intake should be no more than 400 micrograms, and that surprised me. For the sake of higher public good, I would like to suggest a variety of scientific and holistic reasons for why a significantly higher amount of iodine should be used. What you recommend is only slightly higher than the FDA recommendation, which is 150 to 290 micrograms daily, dependent upon age, gender and life cycle. This is dramatically less than some of the leading iodine medical experts suggest, which is closer to, at least, 12 to 18 milligrams daily, which is approximately 45 times higher. Drs. Abraham and Brownstein, also experts, suggest 12-50 milligrams daily and up to 100 milligrams per day for diabetics. Why is there this discrepancy, and how is it that you, Dr. Mercola, in my opinion, have missed the mark exponentially on this issue, when you are often so correct in your understandings?

There is some marginally relevant data supporting your concerns about excess iodine; namely, 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*.[1] However, a one to two-day transient decrease in thyroid function is physiologically irrelevant and not a sign of hypothyroidism in 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, again, 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 could not enter the cells and be utilized. NIS is a carrier system into all the cells, and when this system becomes deficient then the whole body becomes deficient. The key is that people who increase their iodine intake do not have signs of hypothyroidism (such as fatigue, hair loss, headaches, weight gain, weakness, and dry skin) and they maintain normal T3 and T4 levels.

In 1911, 900 milligrams daily (900,000 micrograms/day!) 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 US intake of 425 micrograms daily. Unfortunately there has been no real study, ever, about what is the optimal safe dosage of iodine. Be that as it may, 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 sufficiency and wellbeing, and up to 100 milligrams/day for diabetics is

reasonable in doing much more for our health than to prevent cretinism, mental retardation, and goiter. Moreover, iodine is a universal health mineral having 22 major health and well-being benefits (see below) for humans, many of which are largely unknown to this day. 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.

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 that 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, in 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/day) for 2 ½ years with a dramatic success rate.

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 the amount Wolff–Chaikoff recommended in 1948 and 250 times more than your recommendation. The study lasted for 60 days: 34 days to grow 5 mm tumors and approximately 26 days for the lung cancer tumors to significantly decrease.[2]

In 1993, Dr. Ghent administered to 1,368 patients 5 milligrams (5,000 micrograms) daily with no evidence of the Wolf-Chaikoff theoretical problem of hypothyroidism. This is almost 12 times more than your recommendation. This was done by Dr. Ghent, who, at this dosage, reversed fibro-cystic 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 daily (up to 100,000 micrograms/day) and were considered safe dosages. This is exponentially greater than your recommendation.

From a worldwide perspective, the current level of iodine deficiency is pandemic. Over one third 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 US 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 2,000 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 from these nutritional deficiency diseases.

There are more than twenty-two functions of iodine. These important functions include:

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

2) Iodine sufficiency reverses hypo- and hyperthyroidism.

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.

4) Iodine activates hormone receptors and helps prevent certain forms of cancer. 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.[3] Iodine serves to prevent lipid peroxidation especially in breast cancer. Deficiencies of iodine also increase the incidences of breast cancer.[4 5 6 7 8]

5) Iodine protects ATP function and enhances ATP production.

6) Iodine prevents fibrocystic breast disease.

7) Iodine decreases insulin needs in diabetics.

8) Iodine helps support protein synthesis.

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.

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

11) Iodine supports immune function.

12) Iodine eliminates toxic halogens from the body (including radioactive I-131). 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), 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 already present. This is known as competitive inhibition, and explains why Chernobyl survivors who took iodine, even after the nuclear fallout, escaped thyroid cancer.

13) Iodine regulates estrogen production in the ovaries.

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

15) Iodine neutralizes hydroxyl ions and hydrates the cells.

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; but 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.[9]

17) Iodine prevents heart disease

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

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

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.

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 many other uses, including relieving headaches and eliminating 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.

With all these uses and effects at different dose levels, what then is a reasonable and safe dose in a holistic context?

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 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.

Additionally the serious I-131 exposure from Chernobyl, Fukushima, and 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. 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, which is its singlet iodine atomic form as I-), is used first to detoxify the system, and so there is often 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 are subtle things that can be mistaken for hypothyroidism such as a healing crisis that may be misunderstood as a problem with iodine. The percentage of iodine allergy is quite low – 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, but people can become allergic to protein-bound iodine as is found in shellfish or to the binding agents, excipients, fillers, preservatives and/or synthetics (rather than the bioavailable form of iodine itself) commonly found in tablets, capsules, and even liquids. 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).

In summary, in 1911, 900 milligrams (900,000 micrograms/day!) were considered usual and safe dosage. 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 US 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 in doing much more for our health than to prevent cretinism, mental retardation, and goiter. Moreover iodine is a universal health mineral having 22 major health and well-being benefits for humans, many of

which are largely unknown to this day. 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.

---

[1] Brownstein, David. *Iodine: Why You Need It – Why You Can't Live Without It*. Medical Alternatives Press. West Bloomfield, MI, 2009.

[2] Zhang, L. M. (2003, August 15). Nonradioactive iodide effectively induces apoptosis in genetically modified lung cancer cells. *Cancer Research*, 63:5065-5072.

[3] Verheesen RH, Schweitzer CM. Iodine deficiency, more than cretinism and goiter. *Med Hypotheses*. 2008 Nov;71(5): 645-8.

[4] Patrick L. Iodine: deficiency and therapeutic considerations. *Altern Med Rev*. 2008 Jun; 13(2):116-27.

[5] 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.

[6] Venturi S. Is there a role for iodine in breast diseases? *Breast*. 2001 Oct;10(5):379-82.

[7] Stadel BV. Dietary iodine and risk of breast, endometrial, and ovarian cancer. *Lancet*. 1976 Apr 24;1(7965):890-1.

[8] 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.

[9] Bleichrodt, N. (1994). A metaanalysis of research on iodine and its relationship to cognitive development.