

CONDITIONS CAUSED BY OR ASSOCIATED WITH IODINE DEFICIENCY

Iodine is necessary for every cell to function properly as well as being antibacterial, antiviral and antifungal. There is nothing, so far, that is resistant to the antibiotic properties of iodine. Orally consumed iodine compounds also help with cancer and with other idiopathic diseases that look like infectious processes but in which no organism can be isolated. Iodine deficiency may be the reason some are so susceptible to cell wall deficient bacteria like mycoplasma and the Lyme organism while others, perhaps with ample iodine intake, seem to be immune. Because iodine is a potential poison, from a pharmacological approach, dosing is tricky. Historically dosing ranges have been between the current RDA of 150 ug/day and 250 mg/day!

Although the Recommended Daily Allowance of 150 ug (micrograms) for adults may be enough to prevent goiter it is insufficient for preventing infection and for proper cell function, including apoptosis, the body's natural cure for cancer. David Brownstein, M.D. is an ardent supporter of high - dose iodine and has written a book on the subject. However, controversy among many alternative doctors regarding the dosing of therapeutic iodine continues.

When we speak of iodine as a therapy for a deficiency, we are not speaking of Tincture of Iodine which is a topical first aid antiseptic made of iodine crystals, Potassium Iodine dissolved in ethyl alcohol. This mixture is very poisonous.

What we referring to is either Potassium Iodide in a saturated solution (SSKI) or Lugol's Strong Iodine Solution which is composed of Iodine crystals dissolved with Potassium Iodide in purified water. Lugol's Solution is a 2:1 mixture of potassium iodide to iodine crystals and a drop released vertically contains approximately 12.5 mg of potassium iodide and 6.25 mg of iodine. SSKI and Lugol's are the preferred form of therapeutic liquid. There is a company that makes a product named Iodoral which is the pill form of Lugol's Solution. The important point is that there is a difference between Iodine and Iodide as well as a difference between a tincture and a solution. The solution is used for therapeutic purposes. Coincidentally, it is against regulations to sell or obtain Potassium Iodide as SSKI or Lugol's Strong Iodine Solution without a prescription. Iodoral is presently available through the Internet.

Most Americans rely on a diet of sea food and iodized table salt for their iodine needs. It has been reported that iodized salt is only marginally absorbable. Perhaps it is enough to control goiter, but it is not enough for optimum health.

Statistics tell us that 80% of the people of the world live within 100 miles of the ocean. This is not just because of climate, but also because traditionally the ocean provides abundant (formerly nutritious) food that is easy to harvest. The ocean is the repository for iodine, however, man has so polluted the oceans that certain large fish, bottom feeders and sea weed are deemed inedible because of mercury contamination. Furthermore, for the Pacific Basin there is much concern about radiation contamination

from Fukushima for fish caught in the Kuroshiro Current which connects to the North Pacific Current that heads northward towards Alaska and eastward to the California Current which runs southward down the California coast and meets with the Equatorial Current. These currents cover the Northern Hemisphere's major fishing grounds. Knowledge that the fish and sea weed are radioactive and harmful to eat will quell the diet of billions adding to iodine deficiency and thus many nutritionally induced problems. We have a radiation and contamination monitor that detects alpha, beta and gamma radiation. Since March 18, 2011, interior counts for beta emissions has gradually tripled. By the time the jet stream gets to us, the first half life of Iodine 131 has happened, yet prudence dictates that most Americans need to be on some iodide supplementation because one half life of radioactive decay does not eliminate the whole problem.

Because the mid-American diet developed inland and thus excluded ocean fish and included local freshwater fish and domestic mammals as a protein source, most Americans are iodine deficient even with iodized salt. What conventional medicine fails to appreciate is that goiter is not the only manifestation of iodine deficiency.

Some alternative physicians like Brownstein believe in high-dose iodine while others like Gaby believe in RDA level supplementation and yet use much higher doses for treatable conditions like fibrocystic breast disease or hypothyroidism. Our approach is clinical and individualized. Clearly, one should not trust any RDA figure for more than a nanosecond. We have been treating nutritionally for 30 years and clinically speaking, sticking with the RDA will not move patients in a positive direction. We also know from historical reports that America's soils were considered depleted of essential micronutrients back in 1936; the Senate Report is published elsewhere on this site.

We will start a patient out on a dose based on their clinical picture and watch for clinical improvement adjusting as necessary. We have dosed SSKI for decades based upon a weighted average pH of the urine and saliva. We have found this to be a safe and effective method of treating and monitoring iodine status. We have never had any serious problems using SSKI, except patient compliance! Brownstein reported that SSKI and Lugol's Solution will affect different tissues. According to his studies, the breast, prostate and stomach have an affinity for Lugol's while the thyroid, salivary glands and skin have an affinity for SSKI. If true, this makes Lugol's Solution preferable to SSKI alone. As the iodine loading test has been questioned by some, perhaps it is more prudent to look at T3, thyroxine which is an iodide for demonstration that the body can or cannot convert iodine into iodide. It is a simple procedure to measure free T3 and then begin the patient on the appropriate level of iodide and repeat the study. Also in another section we discuss that selenium is required for the de-iodination of T4 to T3, so this, too must be factored into the equation. Since the "Turkey" and "West Virginia Hollar" studies mentioned elsewhere, patients are usually put on an adequate supplementation of selenium.

Iodide is a reducing agent and will bind to silver (AgI) and mercury (HgI₂ & Hg₂I₂) and many other trace elements. It will also act like an antioxidant and break down reactive species. It has been reported to degrade hydrogen peroxide which is the carrier form of

oxygen in the blood. The HgI₂ is slightly soluble in water and by extension may be a part of a natural detoxification and excretion of mercury from the body although we do not have any studies to prove this.

Some physicians have reported that some patients who do not do well on SSKI do better on Lugol's. We do not have this experience because we rejected self administration of Lugol's by the patient preferring the safety of SSKI. Because of the current Japan crisis and the unavailability of potassium iodide, we have been cautiously recommending the use of Lugol's or Iodoral as a substitute.

Allow me to add to the dentistry discussion that a nutritional deficiency in even this single mineral may be the cause of incredible amounts of human suffering. Iodine has a masterful role in dental and whole body health.

There is some thought that a constant and steady intake of iodide acts as a protective antibiotic. The mouth is full of bacteria, fungi, viruses and protozoans. We are protected somewhat by local lymphoid tissue commonly known as tonsils and adenoids. However, when we have teeth removed these potentially pathologic bacteria can become trapped in the jaw bones causing toxic smoldering infections. These bacteria are characterized as either microaerophylic or anaerobic bacteria; meaning *living with little oxygen*, or *living with no oxygen*. The presence of trace amounts on iodine in the blood offers the potential of preventing these organisms from multiplying or even killing them outright. In this respect one must consider that damage done by questionable dental practices are potentiated by the lack of iodine in the diet.

Iodine helps treat these conditions:

ADD	Infections
Asthma	Intelligence increase
Atherosclerosis	Keloids
Breast Disease: fibrocystic, adenoma	Liver disease (enterohepatic circulation)
Cancer: Breast, Ovaries, Prostate, Thyroid	Ovarian cysts
Diabetes	Parotid duct stones
Dupuytren's contracture	Peyronie's disease
Excess mucous production (COPD)	Sebacious cysts
Goiter	Thyroid disorders: hypo, autoimmune, cancer
Headaches	
Hemorrhoids	
Hypertension	