

WHAT DO YOU KNOW ABOUT IODINE?

by John Appleton

American Doctor and Iodine Researcher Dr David Brownstein is often asked by his patients "if you had only one natural item to treat me which would it be"? His response – "Though there are many natural items that provide wonderful effects for the body, one nutrient stands head and shoulders above the rest – Iodine". He says "in all my years of practicing medicine, I have yet to see one item provide such miraculous effects as Iodine".

So what do we know about this so called miraculous nutrient? Iodine is one of a group of non metal elements known as halogens. The term halogen originates from Greek roots halas (salt) and gen (to generate). The other halogen elements are fluorine, chlorine, bromine and astatine. At room temperature fluorine and chlorine are gases, bromine is a liquid and iodine and astatine are solids.

Iodine was discovered in 1812 by a French Chemist who caught a glimpse of iodine condensing on large vats used for cooking seaweed in order to make gunpowder. Iodine became well known as the first single element known to prevent a particular disease – goiter (swelling of the thyroid gland). Iodine originated in rock formations and much later ocean water plants and animals contained iodine in small amounts as the iodine was leached out of the rocks. Today the most abundant source of iodine is in seaweed and the Japanese extract large amounts from seaweed farms. Iodine is concentrated by seaweed to a level of 20,000 times that of seawater.

New Zealand soils are known to be deficient in iodine and in 1924 iodine was first added to our table salt. The amount was increased in 1938. The recommended daily allowance for Iodine was set at 150 micrograms (the amount deemed necessary to prevent goiter). Iodine deficiency continues to be a problem for a number of reasons:

According to Dr Brownstein – just 10% of the iodine in iodized salt is bioavailable. In addition we have been scared off eating salt (because of concerns about heart disease). So not only is iodized salt a poor source of iodine we are avoiding adding it to our meals.

The ingestion of Bromine, Fluoride and Chlorine (three of the other halogens) has exacerbated the problem. Why? These halogen elements being in the same 'family' group of elements as iodine compete for the iodine receptors in the thyroid gland thus making it even more difficult for any available iodine to be utilized. Bromine has been used in bread-making in the U.S. for many years (I can't find evidence of this in NZ) but in our country Methyl Bromide has been used extensively as a fumigant/pesticide at our ports and for use on soils where foods are grown. Fortunately this highly toxic substance is being phased out. Fluoride (a known neurotoxin) is added to our drinking water, toothpaste and medications. Chlorine as we know is also added to our water supply and when we 'shower' in hot water we literally soak up the chlorine and inhale the chlorinated steam. The same thing happens when we open the dishwasher and a cloud of steam comes out.

Why is iodine so important? Apart from the thyroid (which controls our metabolism) where iodine is used to make thyroid hormone, iodine performs many other remarkable functions in the human body.

It wasn't until I read a book "Breast Cancer and Iodine" (David Derry MD PhD) that I became fully aware of just how important iodine is. Iodine is a powerful antiseptic and following a discovery by French physician Jean Lugol who pioneered its use in hospitals, iodine has not been equaled or surpassed as a substance that will kill all single celled organisms, such as bacteria, viruses, fungi and protozoa. There has never been any development of bacterial resistance to iodine.

Iodine has a very important role in the development of the fetal brain. Dr Derry says "Iodine is sine qua non (without which it could not be) of fetal brain development; lack of iodine during pregnancy is the leading cause of intellectual impairment in the world". And for many years in this country mothers were advised to take fluoride tablets during pregnancy!! How could we get it so wrong? It is interesting to note that Japanese women who consume the highest amounts of iodine have the lowest rate of stillbirth and infant mortality in the world.

According to Dr Derry, iodine can coat incoming allergic proteins to make them non allergic. This is a significant factor when trying to understand autoimmune diseases which are so prevalent in the western world. Dr Derry says "the origin of autoimmune diseases could relate to inadequate circulating iodine". Iodine also deactivates all biological and most chemical poisons. Many women have significant problems with fibrocystic breast disease. Apparently two thirds of American women suffer from this. Iodine has been shown to be extremely effective in treating and preventing fibrocystic breasts. The title of Dr Derry's book "Breast Cancer and Iodine" is what first attracted me. Anyone reading this well referenced book would have to wonder why Dr Derry's research with iodine is not widely disseminated (natural substances can't be patented and sold for billions as drugs can). He says in the introduction "I propose primarily that iodine is the trigger mechanism for apoptosis (natural death of cells) and the main surveillance mechanism for abnormal cells in the body. Iodine triggers the death of cells which are abnormal and this is part of a thesis that iodine and thyroid hormone act as a team to provide constant surveillance against normal cell development". If this is true it has huge implications and not just for breast cancer either. One very interesting statistic that adds weight to Dr Derry's theory is that Icelandic women until World War One – had a rate of breast cancer as low or lower, than that of Japanese women. It is believed that this came about due to left over fish being fed to dairy cows which concentrated the iodine into their mammary glands and thus provided milk very high in iodine. As fish stocks became scarce and iodine in milk decreased this situation changed and the incidence of breast cancer rose by 10 times to parallel the incidence in the United States. Never in the world had such a huge drop in dietary iodine occurred on a national level.

Many tissues in the body utilize iodine beside the thyroid and breasts. In women, after the thyroid, the ovaries have the highest concentration of iodine. The prostate gland gastrointestinal tract, salivary glands, bones, connective tissues and the fluids of almost the entire body utilize iodine. The thyroid gland's need for iodine ensures that it gets 'first pick' of the available iodine which, in an iodine deficient state, may mean that other tissues can show signs of severe deficiency. This is a very significant issue. How much is enough? The RDA (150 micrograms) will provide only sufficient iodine to prevent goiter. It is estimated that Japanese women consume approx 12 mgs of iodine daily (a massive increment on the RDA). It is believed that the breasts require 5 mgs in a 50 kg woman. In obese people the requirement is much greater.

How many of us are deficient in iodine? Dr David Brownstein has tested some 4,000 patients and he reports that 96% test low for iodine. He says “in fact most patients test near zero (their results are below detectable limits)”. The head of an American Laboratory says he has tested 21,000 people and his results are consistent with Dr Brownstein’s findings. How do they test for iodine? The most reliable method is via an ‘iodine loading test’ where patients take a 50 mg dose of an iodine/iodide combination (Lugol solution). Urine is collected for 24 hours. In an iodine sufficient state, 90% of the dose would be excreted. Levels below 90% would indicate an iodine deficient state.

Anyone wanting to ensure an adequate iodine intake or monitor or asses thyroid function should see their doctor/naturopath/health provider. It’s not something that one does without adequate supervision. I strongly recommend that for a more comprehensive understanding anyone interested in this vital and inexpensive element should read “Breast Cancer and Iodine (Dr David Derry) – “Iodine Why You Need It” (Dr David Brownstein) or visit www.optimox.com (Dr Guy Abraham’s website).

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