



Thyroid/Redox reactions/Iodine: new connections

Thyroid disease prevalence is nearly as large an epidemic as obesity and diabetes. Its detection is more challenging than diabetes. "The Colorado Prevalence Study" estimates that the rate of Hypothyroidism in the general population is 10%.

UNDERSTANDING THE ETIOLOGY and treatment of failing thyroid glands lie in the Redox molecule pathways of Iodine metabolism and the manufacturing of thyroxin by the thyroid gland (the hormone every cell must have to thrive).

Iodine is a mandatory molecule for the production of Thyroxin hormones (T4/T3) in the thyroid gland. When it is deficient the thyroid is stressed and becomes enlarged, or eventually fails. Sometimes the stress leads to eventual inflammation and it becomes immunologically disturbed. Diseases like Graves and Hashimoto's thyroiditis can develop. All of these conditions are increasing in the past 40 years. Today Synthroid is the #1 most prescribed medication. There are 21.5 million monthly prescriptions. This does not even include the other brands of thyroid replacement prescriptions.

What is happening to our endocrine health? We do not have any brand new testing devices for this condition that might be leading to extra new diagnosis. Leading researchers are now stating that as part of the obesity epidemic we are experiencing other endocrine system breakdowns. It also appears to be related to our environmental toxins, and the delicate and important need for iodine by the thyroid gland.

Chlorine, bromine and fluorine all share the same column in the periodic table of elements and these chemicals have become pervasive in our personal environment. They displace Iodine from absorption

into our bodies and have made us iodine deficient. 40 years ago 150 mcg of iodine a day met our metabolic needs and now we require 1000 times that (15 mg)! That amount cannot be found in our foods, or our regular vitamin supplements or even iodized salt. So the results are a new epidemic of hypothyroidism and thyroid disease linked to the stress of missing raw materials for metabolism.

Today, supplementing with adequate amounts of iodine is vital but that is not the whole story. Many times, as we age or are under stress of various health challenges, we also are deficient of REDOX molecules. They are made in our cells by mitochondria. These molecules can become depleted or imbalanced and when we supplement them we provide a strategic advantage to our thyroid glands UTILIZATION of iodine and thus the proper production of thyroxin hormone. REDOX molecules are used in the production process of thyroxin hormone with iodine. Also may of the other conditions of oxidative stress in the thyroid gland (Grave's Disease for example) are the result of imbalanced REDOX molecules. These conditions like Graves disease are characterized with the chemical molecular markers of oxidative stress.

We are living in challenging times. Health is not just a "default factory setting" (the absence of disease) like I was taught in medical school. Health is something we now MUST pursue with safe, proven, and evidence based steps. When it comes

to our thyroid health, adequate amounts of iodine, and REDOX molecule supplementing is a smart approach to supporting our health.

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www.webmd.com/drug-medication/news/2015050508

Overcoming Thyroid Disorders: Dr. David Brownstein

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