**Halt on Salt Sparks Iodine Deficiency**
Doctors say, “Cut back on the Salt… But How Will We Obtain Our Iodine?”

By William Davis, MD

**IODINE AND THE LESSONS FROM FIBROCYSTIC BREAST DISEASE AND BREAST CANCER**

The most revealing insights into what quantity of iodine is ideal for health come from investigations into the relationship of iodine and breast health. Over the years, there have been several reports that suggest that iodine deficiency underlies increased risk for breast disease.

Apart from the fact that both the thyroid and breast have high concentrations of iodine, several other connections have been made:

- Breast cancer and thyroid disease are most common in post-menopausal females.
- Women with breast cancer are more likely to have enlarged thyroid glands.
- Japanese women have low risk for breast cancer—nearly the lowest in the world—compared to US women, who have much higher risk. Americans of Japanese descent have risk similar to that of Caucasian Americans.
- Several Canadian studies examined the effects of iodine treatment of women with fibrocystic breast disease and showed marked improvement of symptoms with both sodium iodide and molecular iodine (I₂). These observations are part of the basis for the popular high-dose form of iodine, Iodoral®, which contains a combination of 5 mg of iodine as I₂, and 7.5 mg of potassium iodide.

The close relationship between iodine and healthy breasts free of fibrocystic disease and cancer might be interpreted to mean that *all* of us might do better with these greater intakes of iodine. Some people argue that the ideal dose of iodine is many times greater than the RDA. The Japanese experience argues that milligram-range (thousands of micrograms) intakes are safe and perhaps confer health benefits. Several studies have also suggested that doses in the milligram range are safe, although an initial period of increased TSH may develop, which usually then normalizes over a longer period.

It is a fascinating argument, ripe with anecdotal stories of success. Do the purported benefits of higher iodine doses argue that all humans require milligram doses of iodine, even our children? Or, do higher doses simply restore depleted iodine stores that develop over years of inadequate intake?

Unfortunately, formal data outside of breast disease studies are virtually non-existent. Clinical trials using higher doses of iodine over a long period using modern measures of thyroid adequacy are required to answer such questions; these studies have not yet been performed. Until then, we remain in the dark over the ideal dose of iodine.

**ARE YOU IODINE DEFICIENT?**

Ironically, health-conscious people are often most likely to develop iodine deficiency. One reason is that athletes and people engaged in heavy physical effort lose the trace element through perspiration, increasing their need for it. In one study of high school soccer players, 38.5% of the students were severely iodine deficient. Vegetarians also have substantially greater likelihood of iodine deficiency than carnivorous people, since foods of plant origin are less rich in iodine than animal-derived foods. One study demonstrated iodine deficiency in 25% of vegetarians and an incredible 80% of vegans, compared with only 9% of those consuming a mixed diet that contained meat.

While urinary testing (“spot” or 24-hour urine collection) is used in epidemiologic studies to assess iodine adequacy in a population, the method suffers from great day-to-day variation in specific individuals and is therefore not generally used in daily practice.

With the difficulty in directly assessing a specific individual’s iodine status, indirect assessment can be made by looking for signs of hypothyroidism. When iodine intake is inadequate, thyroid...
hormone production suffers, resulting in hypothyroidism. The most common symptoms include abnormal fatigue, intolerance to cold, cold hands and feet, foggy thinking or difficulty concentrating, increased need for sleep, dry skin, thinning hair, and constipation. The presence of any of these symptoms is suggestive of low thyroid hormone levels and possibly low iodine levels.

Body temperature also provides insights into thyroid health, since the thyroid is the body’s thermoregulatory organ. By taking an oral temperature first thing upon waking before getting out of bed, you can get an approximation of the body’s lowest overnight temperature, which correlates with thyroid status. Oral temperatures consistently <97.3°F may suggest hypothyroidism; temperatures consistently <97.0°F almost certainly reflect hypothyroidism.

Laboratory assessment of thyroid status can be particularly helpful. Although the ideal range for the commonly measured thyroid-stimulating hormone (TSH) is debated, the newest data, from a study of 25,000 participants argues that the ideal TSH level is 1.4 or less, not the usual 5.5 upper limit still cited by some laboratories. The typical pattern of hypothyroidism is increased TSH with lower levels of free T4 and free T3 (although T3 and especially T4 can sometimes be normal). If iodine deficiency is at fault, thyroid measures generally gravitate back to a more favorable range with iodine replacement.

SHOULD YOU SUPPLEMENT WITH IODINE?

Everyone needs iodine. Just as anyone deprived of vitamin C will develop scurvy, iodine is likewise essential—without it, health suffers profoundly.

Conventional wisdom holds that iodine deficiency is rare, since everyone presumably obtains sufficient quantities through iodized salt and processed foods. But the emerging data, including growing rates of iodine deficiency in the most health conscious individuals, suggests otherwise. Obtaining iodine through use of iodized salt is potentially unhealthy, since salt increases blood pressure and causes fluid retention in susceptible individuals. Increased sodium intake can also increase risk of certain cancers. Obtaining iodine from dietary salt is also unreliable, since the iodine content is so inconsistent.

While the RDA for iodine remains at 150 mcg per day, it is not clear that 150 mcg is sufficient for perfect thyroid health. The dose for ideal health may be higher, perhaps substantially higher, in people who exercise, vegans, vegetarians, and anyone who has experienced a period of iodine scarcity that has depleted iodine stores.

Several forms of iodine are available as single supplements. Note that many multivitamins and multi-minerals contain the RDA of 150 mcg. Kelp is one useful source of multiple forms of iodine that mimics the Japanese experience of consuming seaweed.

In my clinic, as part of our effort to achieve heart disease prevention and reversal, I have patients increase iodine intake to 500-1,000 mcg per day. Side effects with this dose are very unusual.

If hypothyroidism is present, iodine intake may need to be individualized by your health care provider. Rarely, someone with hypothyroidism will develop an abnormal thyroid response to iodine. This occurs because iodine deficiency perturbs thyroid function; restoring iodine can worsen the situation temporarily and trigger transient excessive thyroid activity.

But don’t be frightened of iodine. It is no more dangerous than a modest application of iodized salt on your evening meal.

As word spreads about how much iodine insufficiency exists in the Western diet, I anticipate supplement companies will increase the amount of low-cost iodine contained in their multi-nutrient products.

If you have any questions on the scientific content of this article, please call a Life Extension® Health Advisor at 1-866-864-3027.

References


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