



Dr. Brownstein and his colleagues feel these numbers are far too low as many countries such as Japan ingest 13 mg or more per day. That's 86 times more than is suggested by our RDA. The U.S. has the highest incidence of breast cancer; Japan's breast cancer level is the lowest.

U.S. life expectancy rates 48th of the 226 countries; Japan is 6th. Our infant mortality rate is 7 per 1000 births; Japan is 3.5 per 1000 which is the lowest incidence in the world. Yet when the Japanese relocate to this country and adapt our diet, they quickly join U.S. statistics for cancer, life expectancy, and infant mortality.

Why are we so deficient in iodine? Primarily because we don't ingest enough iodine daily and the little iodine we do ingest gets displaced or pushed out of the essential tissues. Remember the periodic chart of elements that we studied in chemistry? You may recall a highly reactive group called the halogens on the right side of the chart. As you know, the elements at the top of a column displace the elements below. Reading from top to bottom in the halogen family we have fluorine, chlorine, bromine, and iodine.

Fluorine is a known carcinogen and is present in our drinking water and in many of our drugs such as Cipro, Lipitor, Prozac, Paxil, and Effexor.

Chlorine is also found in our drinking water, and in many drugs such as Zoloft, and Wellbutrin. Chlorine is considered a neurotoxin and is used as a pesticide. It is a major ingredient in the sweetener Splenda.

But most people are not aware that Bromine, another iodine displacer is a major player in our diet. Before the 1980's iodine was used as an anti-caking agent in breads and other baking products. Some researchers felt that iodine could cause problems with the thyroid gland; so in the 1980's, it was replaced with

Bromine. Bromine interferes with iodide uptake and utilization in the thyroid gland. Bromine is a toxic element and is considered a chemical that causes goiters. This substitution has been, in large part, responsible for the declining iodine levels in the US.

So as the halogen chart illustrates, fluorine, chlorine, and bromine all displace iodine. To displace means to push out or mobilize. Iodine which is already deficient in our diet is being displaced by other more aggressive elements that can actually poison enzyme systems.

So if we take lowered cellular levels due to dietary deficiencies and add the halogens which further deplete this essential nutrient, we can see why iodine deficiency is so rampant.

There are two tests doctors can use to test iodine levels. One is called the iodine patch test. The other is called the iodine loading test. The patch test has been criticized because it is a screen, does not give qualitative numbers, and it's difficult to say when to stop supplementing. I like it because it is inexpensive and easy to understand. Below you can get a written discussion for both tests and labs that perform the qualitative 24 hour urine test.

But here's the short version of the patch test and something you can do with your patients tomorrow. Apply iodine on the skin in one inch square area. Iodine is a stain and it is important to avoid staining one's clothes. The stain should be visible for 24 hours. The faster the stain disappears, the more likely the degree of deficiency. You will be amazed at how fast some of the stains disappear.

Considering the body's great need for iodine, with treatment your patients can really feel the difference. A little iodine can make a big difference.

Thanks for reading this week's edition. I'll see you next Tuesday.