

**THEODORE C. FRIEDMAN, MD, Ph.D.**  
**SHOULD I TAKE IODINE TO PREVENT COMPLICATIONS FROM THE JAPANESE  
NUCLEAR LEAK**

We are all saddened by the catastrophe happening in Japan following the recent earthquake. We are especially concerned about the dangers to citizens of Japan posed by the leak of the Japanese Fukushima Daiichi nuclear plant. Many patients in the US have been asking me should they take potassium iodide to prevent the possible effects of radioactive iodine on the thyroid gland. It is known that radioactive iodine does lead to thyroid cancer and people who were near the Chernobyl nuclear reactor plant in the Ukraine in 1986 did develop an increased rate of thyroid cancer. However, the situation in Japan is quite different, as the leak is nowhere near the magnitude of that at Chernobyl, and the distance between Japan and the United States is very vast. The people that were surrounding Chernobyl who were most affected were within 1,000 miles of Chernobyl and they were all downwind from the Chernobyl incident. Nobody outside of 2,000 miles away was affected. The west coast of the United States is more than 5,000 miles away from Japan and therefore, the radioactive materials (of which the amount of radioactivity is much smaller in Japan than at Chernobyl) will, according to experts, will have dissipated as it goes over the Pacific Ocean.

In terms of taking potassium iodide (iodide becomes iodine with oxidation), the iodine can exacerbate both hyperthyroidism and hypothyroidism. The exacerbation of hyperthyroidism with exogenous iodide has caused Jod-Basedow phenomena. This effect is due to the fact that in hyperthyroidism, the gland is hungry for iodine and when you give iodide, you make a mildly hyperthyroid gland much more hyperthyroid as it gets iodine to make much more thyroid hormones. For this reason, iodide can exacerbate mild or potential hyperthyroidism. Iodide also has a detrimental effect in people who could be prone to hypothyroidism. This is called the Wolff-Chaikoff effect. Exogenous iodine can block the synthesis of iodine in patients already with hypothyroidism and can bring out latent hypothyroidism.

Because of the potential detrimental effect of taking iodine on the thyroid gland as well as the infinitesimally low chance that the radioactivity fallout from Japan will affect Americans, Dr. Friedman strongly recommends against taking iodine supplementation at this time. He posits that the risks of potassium iodide outweigh the benefits. Colleagues in Tokyo are even saying that potassium iodide is not even being recommended there. More information about Dr. Friedman's practice can be found at [www.goodhormonehealth.com](http://www.goodhormonehealth.com). Our prayers are with the Japanese population.