

SaltGuru Video Transcript

Episode: 3 – Iodized Salt

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▶ Hi, my name is Mort Satin and I am the Salt Guru. I am also the Technical Director of the [Salt Institute](#) in Alexandria Virginia.

According to a Pew Research survey, the intellectual and technological triumphs of the space program tops the list of 20th century American achievements. Despite the fact that the average U.S. life expectancy rose 57% during the century, from 49 years in 1901 to 77 years at the end of the century, medical breakthroughs were only cited by only 7% of the survey's respondents.

When categorizing its 10 greatest public health achievements of the 20th century, the CDC made sure to include safer and healthier foods, yet the most significant accomplishment – one that not only contributed to vastly improved public health and longevity, but also to the national intellectual capacity that led to our space triumphs, received a paltry 8 words out of a 3,400 word article.

Why does [iodized salt](#), without question the most effective dietary intervention of the 20th century, remain so far below our collective radar? Is it because that tiny pinch of salt has been so effective that we simply take its benefits for granted and forget about it? If that is the case, then we had better reconsider its importance – now!

Although the effectiveness of iodine in treating goiter had been known since 1821, it was a full century before the successful management of this disease became a fact of life. During World War I, doctors in Michigan were shocked at the number of young draftees that had to be turned away from the military because of goiter (which ran as high as 64% in some areas). Goiter proved to be the largest single cause of medical disqualification for military service.

In 1922, physicians in Michigan met to promote the addition of iodine to salt (as was practiced in Switzerland). Two years later, after a series of local trials, they presented a referendum to the Michigan State Medical Society asking for its endorsement of iodized salt. This was approved on March 15, 1924. A little more than a month later, iodized table salt produced by the Diamond Crystal and Mulkey companies first appeared on the shelves of Michigan grocers.

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In the fall of 1924, the Morton Salt Company produced and marketed iodized table salt for country-wide consumption. From that moment on, with a simple jiggle of the salt shaker, Americans dispatched the scourge of [iodine deficiency diseases](#) - goiter, cretinism and hypothyroid coma (myxedema) - into the dustbin of medical history.

What was not known at the time was that the fourth and most devastating horseman of the iodine deficiency apocalypse was [mental retardation](#). In the past it was not uncommon for significant numbers of children in certain regions to be considered 'dull' or 'dim-witted', without any connection made to iodine deficiency unless the condition was so severe as to be regarded as cretinism. However, within the last two decades it has been demonstrated that where 5% or more of school age children have goiter, the average cognitive ability in the entire population is reduced by as much as [15 IQ points](#) - a drop sufficient to move a child into the mildly retarded category! As the World Health Organization claims, one teaspoon of iodine is all a person requires during an entire lifetime, yet iodine deficiency at critical stages of development in fetal life and early childhood remains the world's single most important and preventable cause of mental retardation .

Motivated by this shocking information many developing countries, encouraged and supported by the International Council for the Control of Iodine Deficiency Disorders, UNICEF, WHO and several other agencies and organizations are moving ahead to promote national salt iodization programs around the world. China, poised to be the 21st century's economic and technological powerhouse, has given national salt iodization programs a high priority - a sure sign that it intends its citizens to achieve their full intellectual potential in an increasingly competitive world. In the past 15 years, China increased its use of iodized salt from less than 20% up to 94% today!

Paradoxically, in the country that led the development of salt iodization, a cloud has descended over what was once considered to be an unassailable public health success. The National Health and Nutrition Examination Surveys carried out over the last 30 years have shown a dramatic drop in urinary iodine. The median urinary iodine excretion in adults [declined from 320 µg per liter](#) in 1971-74 to 168 µg per liter in 2001-2002. That is a major drop. More disturbing still, in pregnant women, the frequency of moderate iodine deficiency jumped from 1 percent in 1971-1974 to 7 percent in 2001-2002. While the current levels are not quite low enough to declare a public health emergency, the trend is a matter of great concern. Public health policy makers - you'd better wake up!

What is responsible for this disturbing trend?

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It has been suggested that the iodine in milk decreased because the iodine sanitizers used in the dairy industry are being replaced by other products. While this may contribute to some reduction of iodine intake, I believe there is a far more compelling explanation for reduced iodine intake.

During the past 30 years we have witnessed the incredible success of the restaurant and food service sectors. We are eating more and more of our meals outside of the home. In parallel with the decreasing number of meals consumed at home is the drop in urinary iodine. This makes sense because it is consumer table salt that is iodized. With very few exceptions, meals consumed out of the home are not made with iodized salt. The trend of consuming an increasing number of meals out of the home will obviously continue for the foreseeable future. Although we are not there yet, it doesn't take a SaltGuru to see that we will soon approach a critical level that may result in the resurgence of iodine deficiency disorders along with all their social and economic consequences in this country.

Now is time to sit up and take notice of the incredible contribution that iodized salt has made to our national well-being. Before we cross that Rubicon, and risk re-introducing the specter of iodine deficiency disorders, the restaurant and food service industry must demand and use iodized salt so that those meals that consumers and schoolchildren eat away from home provide the same level of iodine as those they displaced from within the home.

It is iodized salt that has allowed us to achieve our full mental and physical potential. If we are to maintain our intellectual ability to produce the stunning triumphs that resulted in our achievements in space exploration, our breakthroughs in medical and agricultural sciences and all the other intellectual endeavors that require our utmost cognitive faculties, then our nutrition must be worth its salt!

This is Mort Satin, your SaltGuru saying bye-bye until next time. ◀

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