

Mayo Explains Iodine's Power In Goitre Cure

Noted Surgeon, in Beaumont Lecture, Tells of Thyroid Gland and Goitre (Calgary Herald)

That iodine is responsible for the saving of thousands of lives annually and that it is capable of effecting apparently miraculous cures in the cases of persons afflicted with toxic goitre were the chief points made recently by Dr. Charles H. Mayo, of Rochester, Minn., who delivered the first of three "Beaumont Lectures" before members of the Wayne County Medical Society.

Dr. Mayo's subject was "The Historical Aspects of the Thyroid Gland: Its Development, Function and Disease." The "Beaumont Lectures" were inaugurated four years ago by the Wayne County Medical Society as a memorial to Dr. William Beaumont, who, when post surgeon at Fort Mackinac, published in 1833 his epoch-making work on gastric juices and the physiology of digestion.

Dr. Mayo touched briefly on the life of Beaumont and remarked that although medical history indicated eight of his predecessors had been given the same rare opportunity for pursuing the same line of investigation, none had been qualified to take advantage of this.

History of Gland

Briefly, then, Dr. Mayo proceeded to give the history of the thyroid gland and to indicate its functions in health, contrasting this with its condition in disease and pointing out by means of slides the various types of goitre. Sixty-five per cent of the solution discharged by the healthy thyroid into the blood stream consisted of iodine, he said, the average person consuming three-quarters of a milligram of iodine daily. When the gland found difficulty in obtaining its supply, it proceeded to multiply its cells as though reaching out after the substance and the condition known as goitre followed, he explained.

The Cretins

Dr. Mayo spoke of the cretins, generally born with a deficient thyroid, which manifested itself in a sort of mental torpor, in deafness

and dumbness often, and in failure to increase stature at the normal rate. Thyroxin, or thyroid extract, if fed to these children, he said, was found to have an almost immediate effect. He displayed pictures of children who had grown an inch a month during the first year of treatment and thereafter half an inch a month.

"We may see from related circumstances," he said, that nature intended the thyroid gland to be the great energy gland of the body. I think it may well be likened to the draft, if the body is the stove. The draft regulates the burning of the carbon in the stove and the thyroid governs our metabolic rate. In the unborn child, the thyroid should be in place by the seventh week. We know that it is closely related to the sex organs, especially in women. At times when certain conditions arise with respect to these organs, there is a marked swelling of the neck.

"Nature has considered the gland of sufficient importance to provide for it an unusually large blood supply. In fact, the thyroid could take care of the entire supply of the body with the exception of the amount feeding the brain.

"We can see from the cretins that life is not worth living without an efficiency functioning thyroid gland. Remove the thyroid and you close the draft of the stove. The subject experiences chilly sensations and is mentally dull, asking the same question over and over again. It is the typical picture of old age when the thyroid is not functioning properly. But restore the glandular secretion and you open the draft; the stove burns properly again."

On Old Men

Dr. Mayo stated that the Greeks, the Romans and the Phoenicians had practised glandular therapy, but generally on old men. Iodine, he said, was not discovered until 1811, although Paracelsus, as early as 1600, was prescribing for goitre a substance rich in iodine.

Absolute Preventive

"Iodine is almost an absolute preventive of colloid goitre," he said. "That has been proved beyond all question. In those countries like Switzerland, the Indian Punjab and our own western and Great Lake region, where the water is deficient in iodine, goitre abounds. There is little of it, for example, in the states bordering the Atlantic coast and where great quantities of sea food are consumed. How we manage to extract the iodine from food, no one knows,



SURGEON WEARS HIGH HAT CROSSING THE ATLANTIC

DR. CHARLES H. MAYO, the famous Minnesota surgeon, lost his soft hat in his haste to catch the Adriatic, on which he has just arrived home, and was forced to wear a "stove-pipe" all the way across. He was the subject of much "joshing" by other passengers, but took the matter good naturedly.

but it should form an admirable line for investigation.

"We are only just beginning to gather together bits of knowledge concerning our ductless glands, but already the fact that iodine has a profound influence on the thyroid has been of inestimable value. Previously, old cases of goitre, coming to Rochester for treatment, would die before they reached the clinic for operation. Now that can be checked.

"Give even a dying patient ten drops of iodine solution three times a day for ten days, and at the end of that time he will be on his feet. In the last year, the death rate was only .68 per cent from this cause. The iodine also enables the surgeon to do a complete operation at once when before he had to do three or four 'test' operations first and thus greatly weakened the patient's resistance. Iodine or thyroxin, in many cases of goitre, is a curative. Given in table salt it is a preventive for goitre. Precisely how it is split up when passing through the digestive tract on its way to the thyroid gland, from which it emerges into the blood stream as a hormone, we do not know. Its demonstrated usefulness, however, must content us for the present."

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GROCCERS

Lack Of Iodine Many Children Have Source Of Ills Goitre, Sault Investigation Shows

Long-Known Salt Wins Delayed Recognition By Medicine

MUCH USED IN THE WAR Salt Contained in Many Foods In Natural State.

(London Free Press)

LONDON.—There is new hope for the ordinary man, who is the victim of the ordinary aches and pains and ailments of "every-day life." This hope comes through a substance, one of the essential salts, which has been known to medical science for many generations. It is iodine.

It is known, as indeed it might have been, known many years ago, that a lack of iodine in the circulation of the blood, from which it is extracted by the thyroid gland, is the cause of countless ailments. It knows as a condition. The commonest of these ailments is goitre, or D-thyroidism, which affects the health in which it is a constituent, and minor but distressing degrees of it through the vegetables and fruits thousands of people, who never in which it is contained. Nature indeed has always recognized the necessity for iodine. But we, who thrive on nature's bounty, have undone a large part of her good work by cooking and peeling our vegetables and fruit, and by refining the iodine out of our salt. The fam- ous march of progress, of which the steps are so halting and slow, has now driven medical science into some recognition of the value of this essential salt. A star has set for dressing for wounds, while now been reached in which the simple prescription of a No. 9 doctors may be expected to make pill and iodine saved medical office a habit of prescribing iodine much ers a vast amount of trouble and more frequently.

(Special Despatch to The Globe) Sault Ste. Marie, Ont.—The medical survey which is being made in schools of the Sault by the members of the Sault Ste. Marie Medical Association is revealing more goitre among the children than had been expected, though it has been considered for some time that the Sault was in a section where goitre was prevalent. No figures as to the number of cases discovered are available, as the survey has not been completed, and the reports have not been turned in, but it is understood that the proportion is quite large.

restored unnumbered sufferers from strange and divers diseases to the rude state of health, which was the cause of countless ailments. It knows as a condition. The commonest of these ailments is goitre, or D-thyroidism, which affects the health in which it is a constituent, and minor but distressing degrees of it through the vegetables and fruits thousands of people, who never in which it is contained. Nature indeed has always recognized the necessity for iodine. But we, who thrive on nature's bounty, have undone a large part of her good work by cooking and peeling our vegetables and fruit, and by refining the iodine out of our salt. The fam- ous march of progress, of which the steps are so halting and slow, has now driven medical science into some recognition of the value of this essential salt. A star has set for dressing for wounds, while now been reached in which the simple prescription of a No. 9 doctors may be expected to make pill and iodine saved medical office a habit of prescribing iodine much ers a vast amount of trouble and more frequently.

Used in War

Iodine is taken in many forms, the iodine out of our salt. The fam- ous march of progress, of which the steps are so halting and slow, has now driven medical science into some recognition of the value of this essential salt. A star has set for dressing for wounds, while now been reached in which the simple prescription of a No. 9 doctors may be expected to make pill and iodine saved medical office a habit of prescribing iodine much ers a vast amount of trouble and more frequently.

Windsor Iodized Salt plays an important part in the health of growing children

Goiter is but the visible sign the ugly danger signal, of a lack of iodine in the thyroid gland—Mental development, physical growth, the skin, the hair, general health affected.

Then as children approach puberty, goiter or lack of iodine seriously retards the development of the generative organs in both sexes, especially in girls, in whom the change is made more rapidly than in boys. Such girls are likely to bear goitrous children when they themselves become mothers.

So it will be seen that while goiter is very common, it is not the only result of lack of iodine in the system. It is also plain that for the maintenance of good health iodine is an absolute necessity.

Goitrous expectant mothers may bear goitrous children, which in many cases are cretins or imbecile dwarfs, while in the large percentage of cases the children will be defective in one form or another.



Defective action or wasting of the thyroid gland due to insufficient iodine, in women approaching or past the change of life, causes depression, dry, unhealthy skin, pasty complexion, falling hair and nervousness. Deficient iodine also adversely affects the nutriment of the body. Fats are not properly consumed as heat and are redeposited under the skin, causing obesity or even fatty degeneration. We have now told you what the lack of iodine in the thyroid gland means. What the presence of iodine means is equally interesting and shows how important iodine is to every human being.

ALL the iodine in the world is contained in the ocean in beds of salt, deep underground, left there millions of years ago when oceans rolled where now it is dry land.

Ages ago iodine may have been one of the chemicals of rocks or the soil absorbed from the ancient oceans, but there is no iodine in the soil today. Iodine is one of the most soluble salts in nature, consequently if it ever existed in the soil it would be quickly dissolved and carried down to the sea, leaving none available at any of the usual sources from which our bodies derive the salts and other chemicals necessary to health and normal development, viz., in water, vegetables and other foods.

Switzerland, one might almost say, has been the very home of goiter and the attendant evils caused by insufficient iodine. This is because it is far inland from the sea and because the water supply is almost exclusively derived from glaciers or snow. However, Switzerland is now adopting the simple, effective method of using salt.

The surest, simplest way of getting iodine into the thyroid gland is by using Windsor Iodized Salt.

It is necessary to put iodine into the salt and for this purpose the Canadian Salt Company at Windsor, Ontario, worked out the first successful formula in Canada for iodizing salt. Since this discovery and its subsequent approval by the Provincial Board of Health, Windsor Iodized Salt is in universal use.

Windsor Iodized Salt prevents goiter and the diseases caused by deficient iodine. It is estimated, that 90 to 95 per cent of goiter cases can be cured by the simple use of Windsor Iodized Salt. While it is too soon to say what percentage of cases can be prevented, it is not too much to say that within ten years goiter may easily be eliminated in Canada by the simple, daily use of Windsor Iodized Salt.

Windsor Iodized Salt tastes and looks just like "plain" salt. If we didn't tell you it was iodized you would never know it. It does not change the flavor of your food one iota. The children take it in their porridge, in their vegetables and broths just the same as any other salt and they never know they are taking "medicine" that makes them grow into sturdy, vigorously healthy young men and women.

THE CANADIAN SALT COMPANY, LIMITED WINDSOR ONTARIO

1. It is necessary for effective metabolism, and specially promotes respiratory changes and physical growth.
2. It promotes efficient mental development. A severe shortage before birth results in cretinism.
3. It is especially required in the pregnant condition and antenatal clinics must bear this point in mind.
4. It is needed at the age of adolescence for the reproductive organs, particularly in the female, in whom the change-over takes place more rapidly than in the male.
5. It is needed to keep the skin and its appendages in a healthy condition. A dry skin and falling hair frequently mean thyroid deficiency.
6. It is required for the digestion, assimilation and combustion of fats. When a shortage occurs the fat cannot be satisfactorily dealt with and it is stored in the subcutaneous tissues. Many cases of obesity may be occasioned in this way.
7. It is required for the metabolism of calcium. The harder the drinking water the more iodine is required.
8. It is needed to enable us to resist the invasion of microbes, and to render harmless the toxins which they produce.

Dr. Barwise also admonishes that it should be remembered that the secretion of the thyroid is one of nature's processes of securing immunity from germ infection, and the prevention of goiter is much more than a mere aesthetic attainment. For the maintenance of health, infinitesimal quantities are as necessary as vitamins and the effect of it is similar and quite out of proportion to the quantity taken. There is every reason to believe that the freer use of iodine in Derbyshire would lead to improved physical and mental development; a greater freedom from infectious complaints; and improvement in the general health.

Thirty years ago it was learned that iodine was a necessity to the proper functioning of the thyroid gland and when the gland was deprived of its iodine, goiter in some form resulted. Another result of insufficient iodine was the wasting of the thyroid gland.

Generally speaking, goiter was considered more disfiguring than dangerous. In the majority of cases it really is not a serious trouble, though some forms, exophthalmic or "pop-eyed" goiter, for instance, are extremely dangerous and fatal in 20 per cent of the cases within two years.

Goiter—the common variety—so frequently seen in both sexes, is really a symptom or evidence that the body has not been properly supplied with iodine through the thyroid gland, with results to the general health likely to be much more serious than the goiter itself.

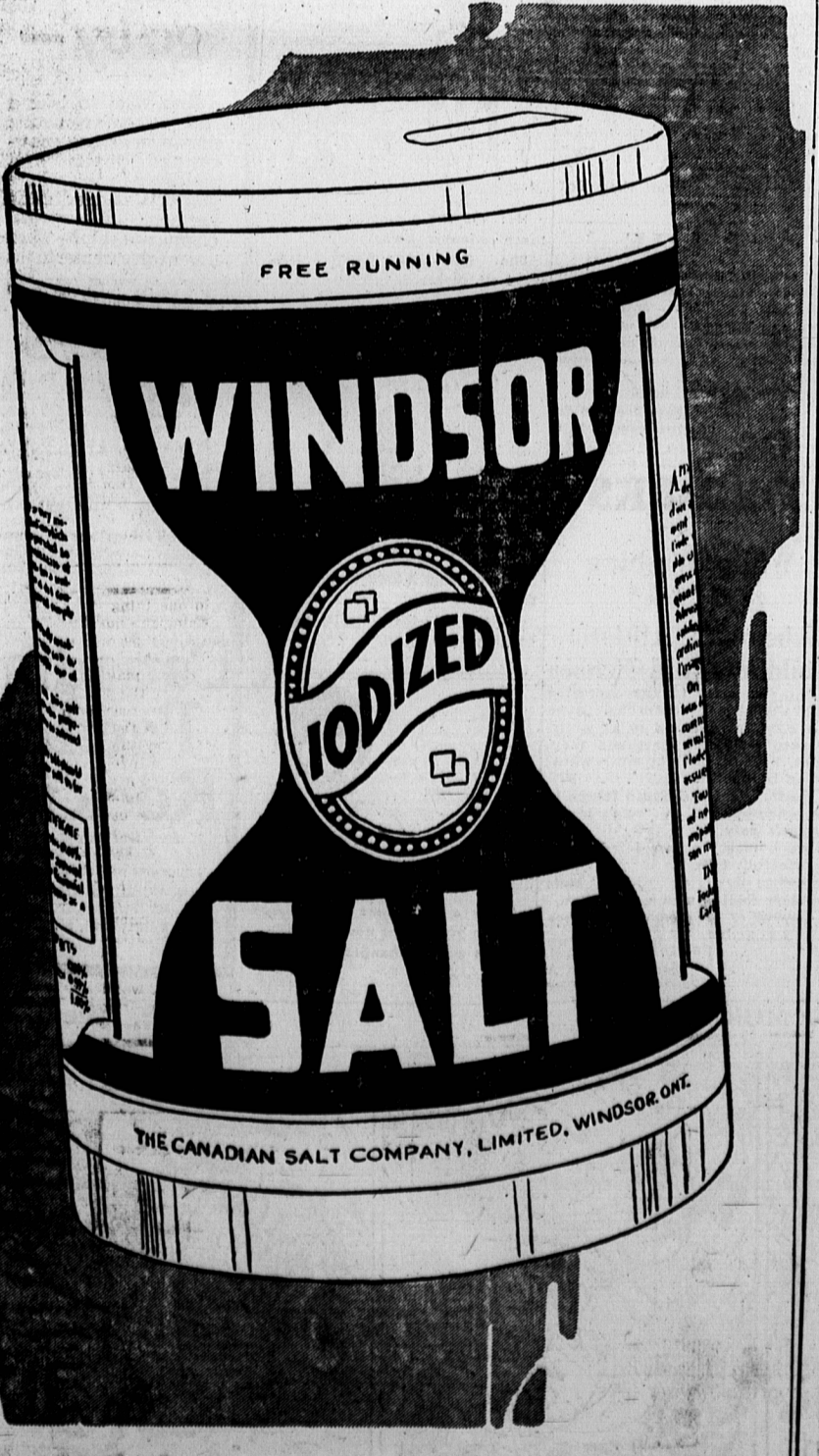
But the great prevalence of goiter also led to the discovery of the almost universal prevalence of other troubles due to the lack of iodine. As goiter became better understood its causes were sought. Surveys showed that it was least frequent near the sea and most frequent inland.

Further study revealed that to properly function, the thyroid gland must have iodine to work with—in infinitesimal quantity.

THE DANGER SIGN

Then as the work of research proceeded it was found that the lack of iodine in the thyroid gland produced many other harmful results. Goiter is only the outward manifestation of one result of the absence of iodine. For instance, lack of iodine in the thyroid gland seriously interferes with the growth of children.

Investigation of this condition was started from the fact that young salmon which remain in the fresh waters where they are hatched seldom grow to more than a half to two pounds in weight, while those which go down to the sea their second year and remain there for three years grow to from 15 to 30 pounds in weight. They get their iodine in the salt water and grow big.



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And a story of how the porous salt in Canada is brought to your table as told by a girl who saw it all. Write to Windsor Salt, Windsor, Ont. Also Makers of **REGAL TABLE SALT** FREE RUNNING