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Help Fight Goiter With Seaweed

By Sarah Field

CITIZENS of the goiterous belt of the United States are starving for iodine. Today in Iowa, goiter is getting no better fast. One can find in almost any group of school children several, especially girls, whose necks are swollen.

The swollen neck, however, is only the outward sign of a diseased thyroid; there are many other symptoms not so easily recognized. A fast heart often accompanies a swollen neck. This is usually connected with what is called an "ingrowing" goiter, the exophthalmic type, that is not so noticeable, but is all the more dangerous since its effects are internal.

Another result of disturbed thyroid is nervousness. Sometimes this is slight; sometimes so serious as to result in a break-down, which nothing but weeks of rest can cure; and sometimes so grave as to bring the sufferer nearly to insanity. The diseased thyroid seems most dangerous to girls who are growing fast, either as small children or in the 'teen age; to women when pregnant or nursing; or at the menopause (change of life). One of the worst results that may come to a girl from a diseased thyroid is a failure to grow up properly into a woman. Some girls remain children all their lives from this cause.

It was not until quite recently that the cause of goiter was determined, although the disease itself had been known for thousands of years all over the world. Previously the disease had been attributed to "bad" or hard water, "bad" air or bacteria. Finally, some thirty-five years ago, a man named Bauman discovered that the thyroid gland contained very small amounts of iodine, but that

the rest of the body contained little or no iodine at all. A few years later goiters were noted on the fish at a hatchery. "Bad water" was said to be the cause. It was then shown that if a very

enters central Iowa, passing with moderation down through Missouri. A second belt skirts the northwest states of the country. Both these sections have been out of the sea thousands, millions of years, and the rains have washed the iodine out and down to the sea again.

When a person really has a goiter, it is a disease for the doctor to cure. Homemakers and citizens, however, are interested in the "ounce of prevention." How shall they get the wee bit of iodine they must have? This very small amount of iodine has been figured out scientifically to be only a tenth of a milligram. A grain of dust or the point of a pin might picture the necessary amount of iodine. A child who is growing rapidly before or after birth, a boy or girl of 12 to 14, a pregnant mother, or one who has a nursing babe needs some-



Sea weed as it is dressed for market: (1) Scrapings and shavings. (2) Fronds as sent to the manufacturer. (3) Candied. (4) Powdered. (5) Salt-soy pickle. (6) Toasted confections. (7) Rice paste confections. (8) Pieces for chewing. (9) Pieces for soup stock

little iodine were added to the water, no matter how "bad" the water seemed, no goiters resulted. It was therefore concluded that the cause of goiter was the lack of a very small amount of iodine in the water or food, and since that time farmers have fed a little salt of iodine (iodide) to their stock and have found it very beneficial.

Normally this very necessary, but very small quantity of iodine required for proper animal life is found in feeds, hay and grain, water and soil, milk, butter, eggs, vegetables and fruits. However, in some parts of the country the soil and water, and therefore the hay, corn, oats and fodder seem to have no iodine. It is in these districts that the people have goiter. Their food has not the iodine they need. The goiter belt extends heavily through the Great Lakes region and

what more. How can it be gotten for them?

If one eats whole cereals, green vegetables and fruit and drinks milk he should have enough iodine, the scientist says. But here in the goiter belt, even these good friends go back on us. We must look elsewhere for our iodine. Doctors give tincture of iodine which we use to put on cuts. In many places the salts of iodine are given to school children dissolved in drinking water or placed in chocolate covered pills. In Iowa there is used a good deal of iodized salt which contains a small percentage of these salts of iodine—the same iodides the farmer is feeding to his stock. In Ohio, since these methods have been tried, the school children show much smaller necks than previously.

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Fight Goiter With Sea Weed

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But after all, these iodides are quite strong chemicals and so act more or less as drugs on the body. Many physicians consider an organic or food-combination of iodine to be better as a more natural source. For this any sea foods are good. Fish, salmon or sardines, or even cod liver oil, contain valuable amounts of such iodine. Fresh water fish and water-cress contain smaller, but still considerable, amounts.

The sea, however, is really the place to which we must look for our iodine. Seaweed promises to fast become the "life saver" of the goitrous stricken inland. The most numerous and useful are the large, dark brown seaweeds or kelps, heavy, coarse, shiny in appearance, but quite delicious.

The Scotch are said to have used one variety of kelp to chew as tobacco. Some of the red seaweeds are used today in New England and Ireland as a delicacy. Irish moss is used to thicken milk puddings or boiled and the liquid strained and sweetened. The Japanese use the green seaweeds as greens, in salads, in soups or as pickles or candies. Brown kelp grows in huge groves in the ocean all along the Pacific from California north. However, it is seldom eaten in this country.

In Japan the brown seaweeds are carefully harvested and used in many ways. The kinds most in demand are long blades 5 to 20 feet long and 6 inches to a foot in width. These grow in the northern island and are known botanically as a species of Laminaria. They are washed and dried on the beach, carefully trimmed of stems, baled and shipped to

Osaka, the great city a thousand miles south, where there are factories that prepare the kelp for use. In this preparation, successive scrapings of the frond with a saw-edged knife result in a greenish brown sawdust-like powder, somewhat salty and quite delicious.

To return to the goiter problem, the use of the Laminaria thus ground has come to be quite popular. The powder may be added to all kinds of dishes with delightful results. These seaweeds, however, have a more important function than that of acting as a mere flavoring. It is notable that until a few years ago these Laminaria and others of the brown kelps were the chief source of the world's supply of iodine. Today they are coming to be accepted as an ideal food for the people in regions where iodine is scarce and goiter troubles are not.

It was at first questioned as to whether the iodine really was in the seaweeds as they were eaten. Iodine is very volatile and might easily be evaporated during the drying and curing processes. Analysis, however, showed that a great deal of the iodine still remained. A remarkable survey has been made to determine the content of iodine in different types of food in a goitrous region and to decide how much of these foods must be eaten to obtain the tiny amount of iodine necessary to keep the thyroid glands working properly. Experiment shows that in one day, three and one-half pounds of bread should suffice. (Normally we eat one-fourth to one-half pound.) One and one-third pounds of butter, ten pounds of spinach or 100 pounds of carrots, also would furnish enough iodine to keep a grown person out of danger. A growing

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child should have half again as much. Since it would be nearly impossible to get the iodine we need in this way, we may of course add foods from a region where there is more iodine, used iodized salt, codliver oil or other sea foods. One-sixth of a pound of salmon or one-fifth of a pound of oysters would be sufficient for a day. Of codliver oil, two teaspoons would be enough, even though there were no iodine in the rest of the food eaten.

Iodized salt would require only one-sixth teaspoonful to furnish a grown person's daily need of iodine if the iodine is in its best form, which we do not know. But of the seaweed powders, even the one lowest in iodine would give enough for a day if one-ninth of a teaspoonful were eaten, and the Laminaria and "flour of algae" would require far less. Just the sprinkle that one finds appetizing would give plenty for even a child's need.

Of course, the iodized salt is inexpensive; the amount needed daily would cost less than one cent a month. The seaweed would cost less than two cents a month, while the codliver oil may cost three or four cents a day. Ten cents a day would be needed to pay for the oysters or five cents for the salmon and 36 cents for the sardines. Surely the seaweed seems cheap enough.

In reply to questions concerning the wholesomeness of seaweeds, Dr. Caroline Hedger states that there can be no possible danger in eating them. We may conclude, therefore, that seaweed powders are a convenient and satisfactory means of obtaining the iodine without which we perish.

Nobody has a monopoly on the supply of good humor. Wade in and help yourself.

Another good place for a Zipper would be on string beans.—Life.

For the convenience of the readers of THE IOWA HOMEMAKER, the "flour of algae" is on sale at the Judisch Bros. drug-store in Ames. Small samples of the Laminaria and Undaria may also be obtained by writing to Mrs. M. P. Cleghorn, Iowa State College, Ames. The samples contain one-half teaspoonful of the powder, which is sufficient for a family of four for two weeks or a family of two children and two adults for twelve days.

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