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Guarding Against Goitre

(Written for "The Listener" by DR. MURIEL BELL, Nutritionist to the Department of Health)

THIS year's Annual Report of the Director-General of Health contains some points on nutrition which merit our attention. For instance, it is gratifying to read that less goitre is now observed by School Medical Officers among school-children, namely 3.5 per cent compared with 15.1 per cent reported 10 years ago. These figures are taken from the medical examination of school children over the whole of New Zealand, and it is likely that in some areas the figures will be much higher, in other areas much lower, than 3.5 per cent.

An outline of what has happened during these last 10 years to account for this drop in our statistics is worth recording, especially for the information of those who have immigrated to our land. For it is not infrequently found that, whereas those who are indigenous to New Zealand may be aware of the relationship between the occurrence of endemic goitre and the low iodine content of our soils, foods and water supplies, people coming from overseas have needed special advice about the prophylactic use of iodized salt. It so happens that those born here have apparently become adapted to some extent to the low iodine supplies, but immigrants seem to develop enlargement of the thyroid gland more readily. It may sound paradoxical to express fear of the time when the figures for goitre drop to zero; but human memory is short, and people may forget what a startling amount of goitre occurred here in the "bad old days" up to the 1930's, and in forgetting, they may think it unnecessary to use preventive measures.

Let us then recall a few points in the history of the attack on the goitre problem in New Zealand. Following the report by Sir Charles Hercus and his coworkers in 1925 of the high incidence of goitre (in some areas as many as 70% of school children were affected—it was even 90% of adolescent girls in some schools), the resolution by the British Medical Association that iodized salt should be made available for household use was written into the Statute Book and came into operation at the end of 1925. This iodized salt contained only one part of potassium iodide in every 250,000 parts of salt. At that time, medical opinion judged this quantity of iodide to be sufficient, but research during the next few years revealed that it was too little for our particular community.

Time-lag

Then, too, it took time to get people into the habit of asking specifically for iodized salt and of using it both for cooking and for sprinkling on their food. At the end of one decade, only one-third of the salt used was of the iodized variety, and the figures for goitre were still very high indeed. The Medical Research Council at its first meeting recommended an increase in the iodide content of salt to one part in 20,000, a resolution that was legally implemented in 1939. Intensive education by the Department of Health began a year or two later, and the percentage of goitre reported among school children has been steadily decreasing during the last few years.

There is a time-lag for the full effect to be produced even in the juvenile population, because enlargement of the thyroid gland begins in the unborn child, if its mother does not take the precaution of adding sufficient iodide to her diet. She should do so also because her own milk supply for nursing the child is enhanced by the proper functioning of the thyroid gland. One difficulty about taking in sufficient iodide during pregnancy lies in the stipulation that is ordinarily made nowadays in ante-natal clinics, that the amount of salt ingested, as also of other sodium-containing salts, should be reduced during the latter months of pregnancy. It is advisable for the expectant mother to use two teaspoons of seameal *daily* as an alternative.

Furthermore the small child may perhaps not obtain a sufficiency of iodide. Much depends on the foods selected, and the method of preparing them. For instance those who take porridge for breakfast and who constantly have soup on the menu will have two sources of salt that are absent from the diet of those who prefer the flaked breakfast cereals and who omit soup. The flaked cereals have already been salted with manufacturer's salt; the bread or toast and the butter likewise. And indeed, almost half of our salt comes to us through bread and butter; commercial salt is not iodized. A small child does not usually have salt added to foods to the same

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