

Goitre in the Schools—High Percentage

The Medical Conference, at a special meeting, discussed the alarming incidence of goitre in New Zealand. In a paper reviewing the situation, Professor Hercus, of Dunedin, attributed the prevalence of the complaint to the absence of iodine in water, and condemned the absence of iodine in refined salt, with the result that the conference carried a resolution instructing the council of the British Medical Association to bring before the Government the urgent necessity of enforcing the inclusion of iodine to table salt.

Dr. Ada Paterson, reporting on the findings of school medical officers, said that in 1912 and following years little attention was paid to goitre, only those cases being recommended for treatment which showed definite constitutional disturbances. Recently the subject had been more seriously regarded owing to the growing significance attached to the functions of the endocrine glands. In the last three years comprehensive records have been made, cases investigated by Professor Hercus and Dr. Baker in Canterbury being classified in the incipient, slight, medium, or large forms. In all, 19,930 children were examined, the result showing that 15.73 per cent. were affected in varying degrees, the incidence being greatest as the higher standards were reached. In Canterbury, in the primer classes, there was little difference in the incidence in boys and girls, though at adolescence the percentage of boys affected decreased, the incidence in girls being as two to one.

The treatment of children at school had been sufficiently encouraging, and facilities were now provided by which all schools in endemic areas might obtain treatment, consisting in the administration of minute doses of iodine weekly for three school terms of eight weeks each, whilst advice was also given on general health habits, more particularly in the avoidance of constipation and the use of wholemeal bread and plenty of fresh vegetables.

Professor Hercus said that goitre was common in all countries, and was known to exist 2000 years before the Christian era. Though it was difficult to convince the public, because there was no pain, of the seriousness of the complaint, endemic goitre was insidious to a degree. Deformity, sallow skin and dullness were some of its effects in New Zealand, but it was in the generations yet unborn that its full significance would be found, for the dictum of Morel was that goitre was the first halting-place on the road to that form of idiocy known as cretinism. In the population of 3,000,000 of Switzerland there were no less than 12,000 cretins and cretinoid idiots. The settlement of New Zealand was too recent for such an incidence here, but already, after three or four generations, cretinism was making its appearance. Only a few cases were enough to point as a finger-post to the dangers of the future. It was an alarming fact that in Standards V and VI in a large school in Christchurch there was a goitre incidence of $4\frac{1}{2}$ per cent.

Dr. Hercus dismissed the theory that goitre was water-born, unless it was that the factor was the absence from and not the addition of some substance in the water. This fact was well illustrated in Christchurch, when the low incidence of 14 per cent. of goitre was found in Heathcote, against 60 per cent. in Woolston. The artesian water at Heathcote was shown to be mixed to some extent with sea water, and sea water contained iodine.

“Goitre,” said Professor Hercus, “is simply a compensating reaction, a symptom depending immediately, if not remotely, on a lack of iodine. Whatever may be the ultimate cause, the immediate cause of the enlargement is an iodine deficiency.” He contended that evidence supporting this conclusion was incontrovertible, and that the active hormone of the thyroid was a very stable compound of iodine, and no goitre would develop if the iodine content of the thyroid were maintained.