

Welsh schoolchildren at risk of mental impairment due to 'shocking' levels of iodine deficiency

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Shockingly high levels of iodine deficiency found in Welsh schoolchildren risk causing mental impairment in future generations, according to one of Britain's leading academics in the field.

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Shockingly high levels of iodine deficiency found in Welsh schoolchildren risk causing mental impairment in future generations, according to one of Britain's leading academics in the field.

Professor John Lazarus has called on the Welsh Government to take a leading role in addressing the causes of the deficiency, which was confirmed in a study he and colleagues undertook involving around 900 15-year-old schoolgirls in Cardiff and eight other British cities.

In an article for the Institute of Welsh affairs' Agenda journal, Prof Lazarus of Cardiff University School of Medicine said: "Shockingly, the UK is now eighth on the list of the top 10 iodine deficient countries in the world in terms of the number of schoolchildren with insufficient iodine intake. We are placed between Angola and Mozambique."

Apart from Angola, the only other countries with school-age children showing greater iodine deficiencies are Pakistan, Ethiopia, Sudan, Russia, Afghanistan and Algeria.

Iodine was first produced from seaweed in 1811, deriving its name from the Greek word for violet. It is essential for the proper functioning of the thyroid gland in humans and animals. But it was not until the start of the 20th Century that the devastating effect of severe iodine deficiency was recognised.

Prof Lazarus wrote: "In the western Himalayas, people with large goitres [swellings of the thyroid gland which can lead to a swelling of the neck or larynx] were noted to be imbecilic and the term cretin – implying an IQ of less than 40 – was used to describe their intellectual status.

“This was shown to be due to iodine deficiency and subsequent studies found that this condition did not exist in areas of iodine sufficiency.

“Since that time, many areas of the world such as mountainous parts of South America, large areas of Africa and Asia and parts of several European countries, including Spain and Italy, have been found to be grossly deficient in iodine.

“We obtain iodine from our diet, mainly through milk, dairy products and sea fish.”

From the 1920s onwards iodine deficiency has been recognised as a characteristic of large parts of western Britain.

Prof Lazarus said: “No specific legislation was enacted to correct the problem and a laissez faire situation was allowed to continue. In fact the iodine status of the UK improved due to the use of iodophors [added iodine] in the milk industry and the practice of feeding cattle cake to cows in winter. This cake contains iodine.

“But in recent decades we have seen not only the end of universal provision of milk in schools, but also a general decline in milk consumption throughout the population.”

Prof Lazarus also said that during the 1960s it became apparent that iodine deficiency worldwide was one of the major causes of mental deficiency and, importantly, was potentially correctable. The solution was to introduce iodine into a commonly used foodstuff or the water supply.

Iodised salt is the preferred method of iodisation in many countries and has been shown to be cost effective and a major public health success.

But there has never been any legislation in the UK requiring the use of iodised salt. As a consequence, this type of salt is not available in most supermarkets and only around 5% of salt contains iodine.

Prof Lazarus added: “While many countries in the EU have enacted a salt law requiring the addition of certain concentrations of iodine to salt, not all these laws are being adhered to. There could be a need for general legislation across the EU.

“But it would be better if pressure came from below. It is important, therefore, that if it wishes to take the lead in public health matters, Wales plays its part in putting this issue onto the wider public health agenda. For the sake of future generations it is not something we should allow to be kicked into the long grass.”

A Welsh Government spokeswoman said: “We are committed to improving the health and well being of the people of Wales and to reducing health inequalities.

“As part of our Big Health Debate surrounding the proposed Public Health (Wales) Bill, we welcome all contributions on ways to improve health in Wales, including those of Professor John Lazarus.”