Scottish seaweed could help solve UK iodine insufficiency problem

July 18 2014

(Medical Xpress)—Including seaweed in the diet could help reduce iodine insufficiency, a current problem in the UK population, according to a new study.

A lack of iodine in the diet across the UK population and around the world is now a prominent health issue, according to the World Health Organisation (WHO), due to low intakes of dairy and sea food where the nutrient is typically found.

A new study, led by Dr Emilie Combet at the University of Glasgow, looked at the potential for seaweed – a rich source of the chemical – to help British women reach the recommended daily iodine intake.

The study, published in the *British Journal of Nutrition*, used specially-prepared Scottish seaweed in the form of a supplement.

In the acute part of the study, the iodine from seaweed was released at lower level and over a longer period compared with iodine from potassium iodide. This is due to the seaweed food matrix, meaning a sustained release of the nutrient over time.

The seaweed was also taken daily by 42 non-pregnant women, who habitually consumed little iodine. Over 2 weeks, a very small daily amount of the dried seaweed (0.5g) was a practical, safe way to secure the recommended dose of iodine for an adult.

Beside iodine, seaweed contains many other minerals, trace elements, vitamin groups and amino acids important for good health.

The participants in the study found the seaweed acceptable in taste and easy to use, with the majority (67%) being positive about its use as a food ingredient. However, most also felt they lacked opportunity to buy it and eat it.

Seaweed is already available on the UK market, particularly in capsules form, although with over 10,000 species around the world, and 630 species around the UK, the diversity is huge, as is as the iodine levels naturally present (iodine levels vary by species from 16 to 8165 micrograms per gram). The seaweed used in this study was Ascophyllum nodosum, which has lower iodine levels, around 700 micrograms per gram.

The results suggest that using seaweed as an ingredient in foods could help address iodine insufficiency in the general population..A diet sufficient in iodine is important for thyroid health, as iodine is a key component of thyroid hormones. Obtaining sufficient amounts of iodine in the diet is particularly important for pregnant women.

Since 1993 the WHO has been encouraging countries to fortify salt with iodine in order to combat global iodine insufficiency but many scientists worry this route confounds efforts to improve cardiovascular health by reducing salt intake.

Dr Combet said: "Iodine insufficiency is reportedly widespread in the UK and other European countries, and while some countries add iodine to salt as a way of helping people to consume recommended levels, the UK has not yet gone down this road".

"This study shows that seaweed offers a way of addressing iodine

insufficiency in a healthy, palatable way. Seaweed could easily be added to staple food groups with no adverse effects on taste. However, caution must be exercised – not all seaweeds are the same, with some contain too much iodine, or heavy metals".

The study used a high quality, traceable seaweed supplement, derived from kelp from the Scottish Hebrides, supplied by Napiers the Herbalist. This sustainable source of seaweed is dried and milled and used extensively for food ingredients and nutritional supplements in products ranging from breads and pizzas, to sauces, soups and supplements.

More information: The paper is available here: Low-level seaweed supplementation improves iodine status in iodine-insufficient women: journals.cambridge.org/action/ … Id=S00071145140015 73

Provided by University of Glasgow

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