

Iodine sensitivities and mandatory fortification

What is mandatory iodine fortification?

From October 2009, most bread in Australia and New Zealand will contain added iodine (from iodised salt). This is the result of Food Standards Australia New Zealand (FSANZ) developing a mandatory iodine fortification regulation to help address the re-emergence of iodine deficiency in the population.

Iodine is an essential nutrient that we all need to produce thyroid hormones. The amount of additional iodine added to the food supply, as a result of mandatory fortification, is consistent with our body's requirements for iodine. This amount will not increase the risk of iodine sensitivity reactions occurring.

Further information on iodine and mandatory fortification is available on the FSANZ website at <http://www.foodstandards.gov.au/foodmatters/fortification/index.cfm>

Why do we need iodine?

Iodine is a mineral found naturally and an essential nutrient for life. The thyroid, a small butterfly shaped gland in the neck, needs iodine to produce thyroid hormones, which are essential because they regulate our metabolism. In children, especially young children, including the developing foetus, thyroid hormones help regulate physical and mental development.

What if I am allergic/sensitive to iodine?

Various iodine-containing substances and iodine-rich foods can produce a range of adverse reactions in some people. These people can react, sometimes severely, to iodine-containing substances such as those used in X-ray procedures, iodine-based antiseptics, and/or seafood. Sometimes such reactions are referred to as 'iodine allergy'. Despite iodine being common to these substances and food, the reactions observed are almost certainly not to iodine itself, but to other components bound to the iodine. The forms of iodine used in iodised salt are too small by themselves to cause an allergic reaction.

Some individuals are more sensitive to adverse reactions from high iodine intakes compared to others. This has been referred to as 'iodine sensitivity', and is not a true allergic reaction. These reactions only occur at very high doses that far exceed the amount of iodine that people would receive from their normal diet, even with mandatory fortification. However, very high iodine foods and supplements, such as some seaweed and kelp products may affect sensitive individuals.



What if I have a thyroid condition?

For those people with a thyroid condition, the expected increase in iodine intakes as a result of mandatory iodine fortification is modest and unlikely to cause harm. In addition, such people are likely to be under medical care and, in the unlikely event that a change in thyroid function did occur; this would be identified and treated as part of their regular medical check-ups.

People with hyperthyroidism (an overproduction of thyroid hormone), including Graves' disease, may be more sensitive to increases in iodine intake. As a result, they may be advised to avoid medications, supplements and foods high in iodine, some cough medicine, iodine containing contrast media, kelp supplements, seafood and kelp/seaweed. A single dose or serve of these products usually contains hundreds of micrograms to several milligrams of iodine. In contrast, mandatory iodine fortification will increase the iodine intake of Australians by approximately 54 micrograms per day; an amount comparable to the iodine content of a large glass of milk (300ml).

Will mandatory iodine fortification make my acne worse?

Very high doses of iodine, doses exceeding normal dietary intake, can lead to some forms of inflammatory acne in certain sensitive individuals. These forms of acne are different from the common form of acne. Mandatory iodine fortification will not cause inflammatory acne. It will only raise iodine intakes to desirable levels, in line with the body's iodine requirements.

What should I do if I think I'm sensitive to iodine?

If you suspect you are reacting adversely to increases in your iodine intake, seek advice from your doctor and have this checked through an appropriate clinical assessment. Remember, foods are a complex mixture of ingredients. While you may suspect iodine, it may be some other ingredient causing the problem, in which case you could be unnecessarily avoiding iodine-containing foods. Proper assessment should help to confirm this one way or the other.

If a suspected sensitivity to iodine is confirmed, the next step is to obtain appropriate dietary advice on how to avoid consuming large amounts of iodine-rich foods and substances.

Is mandatory iodine fortification safe?

In developing mandatory iodine fortification, FSANZ set up an Iodine Scientific Advisory Group which included experts in a variety of fields, including allergy experts. FSANZ consulted with the advisory group throughout the development of the regulation, and concluded that the risk of any adverse health effects from mandatory iodine fortification is very small across all groups.

Who is responsible for the mandatory folic acid fortification program?

This is a government initiative in Australia. Food Standards Australia New Zealand is responsible for our Food Standards Code that sets out all the 'rules' for the food industry for the safe manufacture and labelling of foods. Australian health authorities will be monitoring the effectiveness of the increased levels of iodine in the food supply. The Australian Institute of Health and Welfare has the overall coordinating role for monitoring mandatory fortification.

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