Iodine

Introduction
Iodine is a trace mineral that your body uses in small amounts to synthesise thyroid hormones that are necessary for regulating your body’s growth, development, metabolism and body temperature. Most iodine in your body is found in the thyroid gland, but some is also found in the blood and muscles.

What does iodine do?
Iodine is required to make the thyroid hormones that regulate metabolism. The thyroid hormones play an important role in growth, cell reproduction, nerve functions and how cells use oxygen. One of the thyroid hormones – thyroxin – regulates how fast energy is used from food.

Iodine deficiency
If there is not enough dietary iodine, the thyroid swells up in an effort to make more hormones, a condition that is called hypothyroidism (an underactive thyroid). The swelling is called goitre.

Iodine deficiency in pregnancy can cause a severe form of retardation in the child called cretinism. Iodine is particularly important for the normal development of a baby’s brain and nervous system, especially during pregnancy and in the first two to three years of life. Not having enough iodine during pregnancy and early childhood can cause developmental delays and lead to reductions in mental performance. This damage prior to two to three years of age is irreversible.

Where is iodine found?
Iodine can be found in many foods, but much of the Australian and New Zealand food supply is low in iodine as our ancient soils lack this important nutrient. In the past some of our iodine came from iodised table salt but now many of us are correctly following the health recommendation not to add salt at the table or when cooking, or are substituting iodised salt for rock or sea salts. Foods naturally rich in iodine include seafood, oysters, sushi (seaweed), pineapple, coconut, garlic, spinach, eggs and milk.

Iodine fortification
From October 2009, existing salt in breads was required to be replaced with iodised salt. This was seen as preferable to people adding extra iodised salt to their food. However, organic bread and bread mixes for making bread at home are exempt from the requirement. Bread was chosen for iodine fortification as it is a commonly eaten food. While it is mandatory for bread to contain iodised salt, manufacturers may choose to use iodised salt in other foods. Mandatory iodine fortification is expected to reduce inadequate intakes in the Australian population.

For further information
Queensland Health has a variety of fact sheets with detailed information on food safety. Fact sheets can be accessed from the Queensland Health website at www.health.qld.gov.au/foodsafety.

Further information relating to the fortification of food can be found on the Food Standards Australia New Zealand website at www.foodstandards.gov.au.

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October 2011