

# IODINE

## WHAT IS IODINE?

Iodine is an essential trace element that our bodies need for normal growth and development<sup>1</sup>. It is mainly found in the ocean and the soil - although in quite small concentrations<sup>2</sup>. We get our iodine from the plants and animals we eat. How much depends on the concentration of iodine in the soils in which they were grown.<sup>2</sup> The most potent source of iodine in our diet is ocean fish and other seafood. In countries such as Australia and New Zealand, the soils are iodine depleted and, as a result, so are our vegetables, grains and grazing livestock.

## WHAT DOES IODINE DO?

- > Iodine is an essential micronutrient in the human diet.<sup>1</sup>
- > Its most important known function is as a component of thyroid hormones. Thyroid hormones are produced by the thyroid gland (located at the base of the neck).<sup>2</sup>
- > Thyroid hormones play a vital role in regulating metabolic processes such as growth and energy expenditure. They are essential throughout childhood for normal brain and physical development.
- > They are also critical for normal development of babies in the womb. Pregnant women, or women who plan to become pregnant, should ensure their iodine intake is satisfactory.<sup>2</sup>

## WHICH FOODS ARE SOURCES OF IODINE?

The table below shows the iodine content of foods in descending order:

Food	Level of Iodine <sup>3</sup> (ug)
Fruit, 1 serve*	<2
Vegetables, 1 serve*	<5
Ice Cream, 45g	9.6
Gouda Cheese, 40g	13.6
Seaweed (Nori), 1 sheet	16**
Egg, poached, 55g	20.1
Oyster, raw, 13g	21
Swiss Cheese, 40g	23.6
Milk, 200ml	31.8
Yoghurt low fat fruit, 200g	33.4
Fish, Bream, baked, 100g	35.2
Pink Salmon, tinned, brine drained, 85g	51
MILO B-SMART, 20g with 200ml skim milk	60
Seaweed (Red algae), 5g	174 <sup>4</sup>

\*Based on avg. serve size in AGHE, low iodine levels due to low soil iodine content in Australia<sup>2</sup>

\*\*Approximate value

- > Ideally we should get our recommended iodine intake from a wide variety of food sources as part of a balanced diet.
- > A small amount of salt is a necessary part of a healthy diet. The daily recommended salt (sodium chloride) intake for Australian adults is 2.3 to 5.9 grams. Most of the salt in the Australian diet comes from processed foods; therefore we should replace, our salt intake with iodised salt where possible<sup>2</sup>.
- > If you have a low salt diet, make sure the salt you do consume is iodised.
- > Did you know that all bread (with the exception of organic bread) made in New Zealand from March 2008, will be made with iodised salt (where salt is added) Australia is considering doing the same.

# Fact sheet



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## HOW MUCH DO YOU NEED?

A teaspoon of iodine is all a person requires in a lifetime. However, the thyroid gland does not have the capacity to store this amount, so small amounts of iodine must be consumed regularly in the diet.

Recommended Dietary Intake<sup>1</sup>: Iodine

		Per Day
Children:	4-8yrs	90ug
	9-13yrs	120ug
	14-18yrs	150ug
Adults:	>18yrs	150ug
Pregnant women:		220ug
Lactating women:		270ug

## IS IT POSSIBLE TO HAVE TOO MUCH?

There are upper limits for iodine consumption, however, these are not usually a concern for most healthy people. Consultation with a doctor or healthcare professional is recommended before taking any supplements.

## OR TOO LITTLE?

Recent evidence has shown that the consumption of iodine is declining in Australia<sup>5,6</sup>. Fifty per cent of children and pregnant or breastfeeding women living in Australia have been shown to be iodine deficient<sup>7,8,9,10</sup>.

The World Health Organization states that iodine deficiency is the single most common cause of preventable mental retardation and brain damage in the world<sup>11</sup>. Even a mild iodine deficiency can impair development and cause subtle deficits in visual motor skills, hearing and intelligence and iodine deficiency is a major cause of lowered IQ in children. In severe cases the effect can be up to 15 IQ points lower than normal (or a reduction of 15 per cent of the average IQ)<sup>12</sup>.

## References:

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This fact sheet contains general information. Please consult your healthcare professional for specific advice for your personal situation.