



GOOD Bite

at home

*A nutrition fact sheet for parents and carers
of children 0-5 years*



Iodine and your child's health

Since the late 1990s, iodine deficiency has re-emerged as a problem in Australia. Before that, the dairy industry used iodine to clean and sterilise milking equipment. We got enough iodine from what was called positive contamination which led to traces of iodine in our milk. However, the iodine used for sterilisation has now been replaced by chlorine. Hence a significant source of dietary iodine has disappeared.

Due to this, our iodine intake is currently half what it was five years ago. But most Australians are unaware that a problem exists.

Everyone needs iodine. Our thyroid gland (located at the front of the neck) takes up iodine, stores it and releases it in controlled amounts in the form of thyroid hormones. Iodine is an essential component of these hormones. Thyroid hormones, among other things, determine the level of metabolism of many cells.

Iodine is required from conception to death. In pregnancy the infant's brain develops in the first weeks and iodine is essential for this. Thyroid hormone (which iodine is needed for) crosses the placenta and into the foetal brain. So not enough iodine means not enough thyroid hormone which leads to impaired cognitive development and varying degrees of mental and physical retardation. In severe case it leads to cretinism. Cretinism occurs in the womb, and is irreversible.

These disabilities can't be reversed with iodine later in life. Therefore even before falling pregnant, women should consume sufficient iodine. So iodine deficiency is most serious during pregnancy, endangering the unborn baby.

But the need for iodine doesn't end once the baby is born. The newborn brain continues developing for many years, and even mild iodine deficiency can cause a loss of IQ.

Later on, children with iodine deficiency can suffer from stunted growth, apathy, mental retardation, impaired motor functions, speech impediments, and loss of hearing.

Studies in Tasmania showed children born to iodine deficient mothers on average did 10% worse in reading, writing and arithmetic and had overall poorer NAPLAN scores.

Studies done in NSW, VIC and TAS show that we are becoming iodine deficient. Only 10% of households use iodised salt. With a serious iodine deficiency, you lose on average 15 IQ points. A 15 IQ point shift results in a seven-fold increase in children with developmental delay.

In adults, iodine deficiency leads to goitre, a swelling in the front of the neck



How much iodine do you need?

Iodine is a trace mineral and so we need only very small amounts. Most adults require up to 150 micrograms a day (a microgram is a millionth of a gram). Although only small amounts are needed, we need iodine regularly because we cannot store large amounts in the body. Just one teaspoon (about 5g) of iodine is all you need over a lifetime. But if it's not consumed regularly, problems occur.

The recommended dietary intake (RDI) for iodine depends on your age and life stage. Pregnant or breastfeeding women need slightly more iodine as they provide all of their babies' iodine.

RDI for iodine	micrograms per day
Younger children (1 to 8 years)	90
Older children (9 to 13 years, boys and girls)	120
Adolescents (14 to 18 years)	150
Men	150
Women	150
Pregnancy	220
Breastfeeding	270

Which foods contain iodine?

Iodine is in many foods, but much of the food supply is now low in iodine. While seafood, fish and seaweed are very good sources of iodine, sea salt doesn't naturally contain iodine. Iodine does not occur naturally in salt, it has to be added (fortified). The table below is a guide to the iodine content of various foods. However, the actual iodine content of food varies depending on where it is grown and how it is made.

Two thirds of the world insist on iodised salt for all manufactured foods - but not Australia.

In Australia, since 2009 only salt used in bread making must be iodised. The exception to this is organic bread and bread mixes for making bread at home which don't need to be iodised. However, manufacturers can choose to add iodised salt to bread mixes if they wish. Additionally, salt-free breads will not contain iodised salt

Eighty per cent of our daily salt intake is hidden in processed and packaged foods. Manufacturers have an opportunity to create alternative iodine sources for people who don't eat bread by using iodised salt in these foods, but many manufacturers aren't using iodised salt. We know this is the case, as iodised salt must be listed in the ingredient list of food labels.

Less than 10% of Australians buy iodised salt. Many of the salts that you see in the supermarket are fancy and expensive salts and may not be iodised! Any brand you buy should say iodised salt on the packet.

Iodine in food		
Food	micrograms of iodine per serve	Serve size
Oysters	144	6 oysters - 90g
Sushi (containing seaweed)	92	1 sushi roll - 100g
Canned salmon	63	1 small tin - 105g
Regular milk	57	1 large glass - 250ml
Steamed snapper	50	1 fillet - 125g
Flavoured yoghurt	32	1 tub - 200g
Bread (except organic bread)	28	2 slices bread - 60g
Eggs	19	2 eggs - 88g
Ice cream	10	2 scoops - 48g
Canned tuna	10	1 small tin - 95g
Cheddar cheese	4	2.5 cm cube - 16g
Bread, organic	2	2 slices - 60g
Beef, pork, lamb	1.5	2 loin lamb chops
Apple, oranges, grapes, bananas	0.6	1 apple

Contact Us!

This fact sheet is produced by the Central Coast Public Health/Community Nutrition Team. If you have any suggestions or nutrition topics you would like covered please contact us by telephone on 4320 3691 or fax on 4320 2828.



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