Iodine is important for the normal development of a baby’s brain and nervous system.

An iodine supplement of 150 micrograms (μg) each day is recommended for women before conception, during pregnancy and while breastfeeding. Women with thyroid conditions should talk to their doctor before taking a supplement.

Iodine is an essential nutrient that humans need in small quantities. The thyroid uses iodine to produce hormones vital to ensure normal development of the brain and nervous system before birth, in babies and young children. For this reason, it is important that women get enough iodine before conception, during pregnancy and while breastfeeding. Iodine supplements are usually combined with other vitamins and minerals in a multivitamin supplement, and are available from pharmacies and supermarkets.

Why is iodine important and what are the potential effects of not getting enough?

Iodine supports the healthy development of the nervous system, coordination, alertness and the five senses of sight, hearing, smell, taste and touch. Iodine deficiency during pregnancy and breastfeeding can have a negative impact on the brain and nervous system of the fetus and infant, particularly as rapid brain growth occurs in the first 1000 days of a baby’s life. Risks include obstetric and fetal complications as well as reduced mental capacity later in life.

What are the main messages for women?

Pregnant and breastfeeding women in Australia are not getting enough iodine through diet alone. An iodine supplement of 150 micrograms (μg) each day is recommended for women before conception, during pregnancy and while breastfeeding. Women with pre-existing thyroid conditions should talk to their doctor before taking a supplement.

Iodine is usually combined with other vitamins and minerals in a multivitamin supplement designed for pre-conception, pregnancy and breastfeeding. These supplements are available from pharmacies and supermarkets.

- Bread, eggs, dairy, iodised salt and seafood are the main dietary sources of iodine in Australia.
- Pregnant and breastfeeding women should have no more than two serves of cooked seafood per week due to the high levels of mercury present in some fish.
Why do women need more iodine during pre-conception, pregnancy and breastfeeding?

Humans store iodine in the thyroid and in pregnancy the thyroid is particularly active, producing about 50% more thyroid hormones. Women need extra iodine while they are pregnant to produce enough hormones to support the healthy development of the fetus.

Thyroid activity returns to normal when breastfeeding but an iodine supplement is recommended because breast fed infants get all of their iodine from breastmilk.

As it can take time to build the higher level of nutrients needed for a baby’s healthy development, iodine supplements are also recommended at least one month before pregnancy. If iodine intake is inadequate before pregnancy, the mother’s stores may not be sufficient to support the fetus’ needs in the later stages of pregnancy.

Are pregnant and breastfeeding women in Australia getting enough iodine?

No. Most foods in Australia contain only small amounts of iodine, making it difficult for pregnant and breastfeeding women to get enough iodine through food alone. The general population of Australia gets enough iodine due to the fortification of bread with iodine since 2009. But for pregnant and breastfeeding women, iodine intake remains inadequate due to their increased requirements.

How much iodine do pregnant and breastfeeding women need?

The National Health and Medical Research Council (NHMRC) recommend that women have 220μg of iodine per day when pregnant and 270μg when breastfeeding. As dietary intake is unlikely to be sufficient, an iodine supplement of 150μg per day is recommended for women before conception, during pregnancy and while breastfeeding.

Iodine is usually combined with other vitamins and minerals in a multivitamin supplement designed for pre-conception, pregnancy and breastfeeding. These supplements are available from pharmacies and supermarkets.

Which foods contain iodine?

The main dietary sources of iodine in Australia are bread, eggs, dairy and iodised salt. Seafood is also a good source of iodine, but pregnant and breastfeeding women should limit intake to two serves of cooked seafood per week due to the high levels of mercury in some fish.

While women can obtain a good proportion of iodine through a healthy diet, recent research indicates that it is not enough when pregnant or breastfeeding. An iodine supplement of 150μg each day can provide the extra iodine that women need during pre-conception, pregnancy and breastfeeding.

Further information

NHMRC Public Statement: Iodine Supplementation for Pregnant and Breastfeeding Women
RANZCOG Statement: Vitamin and Mineral Supplementation in Pregnancy
National Pregnancy Care Guidelines

Resources for women

NSW Health - Having a baby book (available in 20 languages online)
Raising Children Network - Iodine: what you need to know
Health Direct - Vitamins and nutrition in pregnancy
NSW Food Authority - Food safety in pregnancy

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