

Best Practice Message

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Iodine Supplementation During Pregnancy

Practice changing moments:

- It is recommended that women take iodine supplementation from confirmation of pregnancy until the discontinuation of breastfeeding.
- Rates of prescribing of iodine do not reflect the pregnancy rate in Hawke's Bay.
- Any interaction with a pregnant patient is an opportunity to discuss nutritional requirements during pregnancy and breastfeeding.

Iodine is an essential nutrient for the production of thyroid hormones and required for normal foetal and child brain development. Iodine deficiency in pregnancy may cause maternal and foetal goitre, neonatal hypothyroidism, stunted growth and intellectual impairment, as well as adverse effects on hearing capacity, motor and cognitive function in children. Severe deficiency has also been associated with miscarriage, still birth and preterm delivery.^{1,2}

Requirements for iodine increase during pregnancy, as there is an increase in maternal thyroid production as well as increased urinary losses and transfer of iodine to the fetus³. Thyroid activity returns to normal when breastfeeding but iodine supplementation is recommended to continue during breastfeeding because breast-fed infants get all their iodine from breastmilk.³

Dietary intake alone is unlikely to be sufficient as most foods in New Zealand contain only small amounts of iodine. The iodine content in our soils is low resulting in low levels in meat, chicken eggs and dairy products as well as fruit, grains and vegetables.

Te Whatu Ora Health - New Zealand recommends that all pregnant and breastfeeding women take 150 micrograms of iodine once daily as well as eating foods which are important sources of iodine. Women with pre-existing thyroid conditions should talk to their prescriber before taking a supplement.² Neuro Tabs contain 253 micrograms of potassium iodate (equivalent to 150 micrograms of iodine). This can be prescribed by a midwife or doctor and is fully subsidised on prescription. It is recommended that at any interaction between a woman currently pregnant and clinician is used as an opportunity to discuss the nutritional requirements during pregnancy and prescribe supplementation.

Analysis of prescriptions for potassium iodate dispensed to women residing in Hawke's Bay suggests that the utilisation of this medicine does not match data for birth rates. Patients may receive an initial dispensing of iodine but not continue for the full duration of pregnancy and breastfeeding. In 2019 the average number of prescriptions per live birth was 1.5. If patients were receiving therapy for the duration of pregnancy and breastfeeding the number of prescriptions per patient would be expected to be at least 4. The rate of prescriptions per patient was also lower for Māori and Pacific ethnicity at a rate of 1.3 prescriptions per pregnancy. The reasons for these differences are unknown and likely complex.

References:

1. Pregnancy and Breastfeeding Medicines Guide. Iodine [Internet]. [cited 2023 Jan 24]. Available from: <https://thewomenspbmg.org.au/medicines/iodine>
2. Te Whatu Ora - Health New Zealand. Iodine [Internet]. [cited 2023 Jan 24]. Available from: <https://www.tewhatoru.govt.nz/for-the-health-sector/health-sector-guidance/iodine/#iodine-and-pregnancy>
3. Aakre I, Morseth MS, Dahl L, Henjum S, Kjellevoid M, Moe V, et al. Iodine status during pregnancy and at 6 weeks, 6, 12 and 18 months post-partum. *Matern Child Nutr.* 2020 Jun 29;17(1):e13050.

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