

# Prenatal Vitamin Compounds Available in Brazil Are Not Suitable for Adequate Iodine Supplementation of Pregnant Women

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## Dear Editor:

Maternal intake iodine deficiency results in altered maternal and fetal hormone synthesis, which is proportional to the degree and duration of the iodine deprivation (1). A recent meta-analysis demonstrated differences in the prevalence of iodine deficiency disorders in individuals of various ages living in different regions of Brazil (2).

Although data remain scarce in pregnant women, Ferreira *et al.* found a high prevalence of pregnant women with a mild-to-moderate iodine deficiency in the northwestern region of São Paulo (57%, in a sample of 191) (3). Another study, conducted in a southern region of Brazil (Porto Alegre, Rio Grande do Sul), found that 30% of pregnant women (in a sample of 147) were iodine deficient (4).

Worryingly, the Brazilian National Health Surveillance (ANVISA) recently reduced the amount of iodine added to salt (5).

We aimed to: (i) identify the availability of dietary supplements for pregnant women in Brazil; (ii) verify the amount of iodine present in these supplements; and (iii) correlate these levels with the new global recommendations of the American Thyroid Association (ATA) (1). We obtained nutritional information from available dietary supplements used by pregnant women and analyzed these data based on information on the package inserts using the federal agency (ANVISA) system of drug control and regulation, the ANVISA's Electronic Label. In addition, we contacted the pharmaceutical industries responsible for each product and consulted the Brazilian Dictionary of Pharmaceutical Specialties (2015).

We identified 25 dietary supplements for pregnant women currently in use in Brazil. Forty-eight percent of these supplements contained no iodine (12/25 products), 16% (four products) contained 1–149  $\mu\text{g}$  of iodine, and just nine products (36%) had the recommended amount of iodine (i.e., 150  $\mu\text{g}$ ) as recommended by the ATA, the European Thyroid Association (ETA), and the World Health Organization (WHO).

Despite a mandatory program of salt iodization in Brazil, recent studies have found iodine insufficiency in 30–57% of Brazilian pregnant women. On the other hand, fewer than half of dietary supplements commercially available and used by pregnant women in Brazil contain iodine at the amounts

recommended by international guidelines. Based on our findings, we propose that urgent measures are needed to protect both pregnant women and their offspring from the potential consequences associated with iodine deficiency.

## References

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