



Maternal Iodine Supplementation: Clinical Trials and Assessment of Outcomes

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PRESENTATION ABSTRACT

Additional Consequences of Mild Iodine Deficiency; Effects of Iodine Excess; and Current U.S. Iodine Status

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Abstract

Mild-to-moderate iodine deficiency appears to be associated with increased thyroid volumes and risk for goiter; these effects can be prevented with iodine supplementation. Mild-to-moderate iodine deficiency may also be associated with increases in serum thyroglobulin levels. However, mild-to-moderate iodine deficiency is not typically associated with alterations in serum thyroid function tests. Excessive iodine exposure can cause goiter, hyperthyroidism, or hypothyroidism in susceptible individuals. Safe upper limits for iodine ingestion have not been well defined in pregnancy; the U.S. Institute of Medicine recommends 1,100 µg daily as the tolerable upper limit for iodine in pregnancy and lactation while the World Health Organization (WHO) has established 500 µg daily. The prevalence of thyroid autoimmunity increases as population iodine intake increases. The United States has been iodine sufficient since the 1940s. However, in recent years pregnant U.S. women appear to be mildly iodine deficient. Salt iodization has never been mandated in the United States, and the current major source of iodine in the U.S. diet is dairy foods.

References

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