

Subclinical hypothyroidism in pregnancy

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■ Cite as: *CMAJ* 2017 July 17;189:E941. doi: 10.1503/cmaj.161388

1 Subclinical hypothyroidism in pregnancy is common

Subclinical hypothyroidism is defined by a normal free thyroxine in the presence of an elevated thyroid-stimulating hormone (TSH).¹ In pregnancy, its incidence is more common than overt hypothyroidism, ranging from 15% to 28% in iodine-sufficient regions.² The upper limit of normal for TSH varies by trimester and should be defined by the laboratory to reflect the local population. If these data are not available, an upper limit of 4.0 mIU/L can be used.¹

2 Subclinical hypothyroidism may be associated with adverse pregnancy outcomes

Evidence linking subclinical hypothyroidism to adverse pregnancy outcomes is inconsistent and conflicting.¹⁻³ Studies have shown an association between subclinical hypothyroidism in pregnancy and hypertensive disorders of pregnancy, preterm labour and impaired cognitive development of infants.² However, more recent studies have not replicated these associations.³

3 Universal screening for subclinical hypothyroidism should not be done in pregnancy

Universal screening has not been shown to decrease adverse events when compared with targeted screening.⁴ Screening women is recommended as soon as pregnancy is confirmed if they have symptoms or the risk factors for hypothyroidism shown in Box 1, using trimester-specific TSH ranges.¹

4 Pregnant women with subclinical hypothyroidism and thyroid peroxidase antibodies require thyroid replacement therapy

Half of women with subclinical hypothyroidism have circulating thyroid peroxidase antibodies (TPOAb), which confers risk of adverse outcomes.¹ The TPOAb status of pregnant women with a TSH of more than 2.5 mIU/L should be evaluated.¹ If they are TPOAb positive, these women should be treated with levothyroxine targeted to the lower half of the trimester-specific TSH range.¹ TPOAb-negative women should be treated only if TSH is higher than 10.0.¹ Levothyroxine should be taken separately from prenatal or iron supplements, because drug interactions can affect absorption.⁵

5 Most patients with subclinical hypothyroidism in pregnancy will not require treatment postpartum

Levothyroxine can usually be discontinued postpartum, unless patients were on thyroid replacement therapy pre-conception. Postpartum thyroiditis can occur in about 5% of women, with higher incidence in those with TPOAb during pregnancy.¹ The TSH and free thyroxine levels of women with subclinical hypothyroidism should be measured six weeks postpartum.¹ If symptoms of hyper- or hypothyroidism are noted, referral to a specialist should be considered.

Box 1: Risk factors for subclinical hypothyroidism¹

- Geographic area with iodine insufficiency
- Personal or family history of thyroid disease
- Positive thyroid antibodies
- Type 1 diabetes and other autoimmune diseases
- History of preterm delivery, miscarriage, infertility
- Two or more previous pregnancies
- Prior or current amiodarone or lithium use
- Head or neck radiation exposure
- Morbid obesity: body mass index > 40
- Age older than 30 yr

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Competing interests: None declared.

This article has been peer reviewed.

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