

Mild thyroid dysfunction in early pregnancy linked to serious complications

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Even moderate thyroid dysfunction during early pregnancy significantly increases the risk of serious complications, underscoring the need for universal screening in the first trimester, a new study finds. The results will be presented Saturday at The Endocrine Society's 94th Annual Meeting in Houston.

"These findings add to the now increasing evidence from previous studies that all pregnant women, irrespective of their risk for thyroid problems, probably should be screened for [thyroid dysfunction](#) within the first three months of getting pregnant," said study lead author Jubbin Jagan Jacob, M.D., associate professor at Christian Medical College and Hospital, Ludhiana in Punjab, India.

Thyroid hormone is produced by the [thyroid gland](#), which is located in the neck, and helps regulate the process of turning food into energy. Excessively low hormone production, or hypothyroidism, may cause symptoms like fatigue, sensitivity to [cold temperatures](#), constipation, and depression.

During pregnancy untreated, hypothyroidism is associated with an increased risk of miscarriage, stillbirth, low birth weight, and other serious complications. Although previous research has suggested that women with moderate thyroid dysfunction, or subclinical hypothyroidism, also are more likely to suffer complications, the level of risk was uncertain.

In this study, investigators found that even mild thyroid dysfunction that did not meet the criteria for hypothyroidism greatly increased the risk of serious problems. Compared to pregnant women with normal thyroid function, the risk was:

- doubled for miscarriage (≤ 20 weeks of pregnancy), premature labor, and low birth weight
- seven times greater for still birth

Screening for hypothyroidism involves taking a thorough history of symptoms, as well as a simple blood test to measure levels of another hormone, called thyroid-stimulating-hormone, or TSH, that promotes thyroid-hormone production. At this time, only pregnant women with clinical symptoms of hypothyroidism are routinely tested. Once diagnosed, the condition can be effectively controlled with medication that replaces natural [thyroid hormone](#) with a synthetic version.

Investigators recruited 1,000 pregnant women in their first trimester of pregnancy for the study, as part of a larger project of routine thyroid screening during [early pregnancy](#). They then measured the level of thyroid functioning using the TSA test.

Normal [thyroid function](#) was identified in 533 patients, and 263 had mild dysfunction. The remaining patients were diagnosed with hypothyroidism and withdrawn from the study for treatment. Follow-up continued until the completion of pregnancy.

Jacob and his team then compared rates of miscarriage, stillbirth, premature labor, and [low birth weight](#). They also analyzed several other complications, as well, but these did not differ significantly between women with normal versus moderately low thyroid functioning.

"Our conclusions are that all pregnant women need to be screened for thyroid dysfunction at their first visit," Jacob said. "This should form the basis for the national societies to make a change in their guidelines." Christian Medical College and Hospital funded the study.

Provided by The Endocrine Society

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