



THYROID AND PREGNANCY

Pre-pregnancy care and patient education are essential in women with thyroid disease in order to prevent pregnancy complications

BACKGROUND:

Thyroid disease affects up to 4% of pregnant women. Hypothyroidism due to Hashimoto's thyroiditis and hyperthyroidism due to Graves' disease are most commonly observed. Thyroid hormone requirements increase during pregnancy, therefore, patients with mild untreated hypothyroidism may require thyroid hormone treatment while hypothyroid patients already on treatment will frequently require increase in their thyroid hormone dose during pregnancy. Prior studies have showed that up to 60% of pregnant women on levothyroxine had an abnormal TSH test during pregnancy, indicating the need for a dose change. Untreated or inadequately treated hypothyroidism and hyperthyroidism can result in complications both to the baby, such as miscarriage, premature birth, low birth weight, goiter, and brain development problems as well as to the mother, such as gestational diabetes, hypertension, heart failure, anemia, preterm birth, and excessive bleeding after delivery. The aim of this study was to evaluate pregnancy complications associated with thyroid disease.

THE FULL ARTICLE TITLE:

Männistö T et al. Thyroid diseases and adverse pregnancy outcomes in a contemporary US cohort. *J Clin Endocrinol Metab* 2013;98:2725-33. Epub June 6, 2013.

SUMMARY OF THE STUDY:

The study included 223,512 pregnancies from the Consortium on Safe Labor study from the United States from 2002–200). Pregnancy outcomes of 6,611 women with documented thyroid disease and 216,901 women without thyroid disease were compared. Information regarding the patients' history of thyroid disease and pregnancy outcomes was collected from electronic medical records. Primary hypothyroidism was found in

3,183 women (1.5%) and was associated with increased risk of preeclampsia, gestational diabetes, preterm birth, induction of labor, cesarean section and admission to the intensive care unit due to critical illness. Hyperthyroidism occurred in 417 women (0.2%) was associated with increased risk of preeclampsia, preterm birth, induction of labor admission to the intensive care unit due to critical illness.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Thyroid disease was associated with multiple complications in this study, similar to results from other studies. However, prior studies in pregnant women with clinical hyperthyroidism and hypothyroidism showed that adequate treatment of thyroid dysfunction decreases maternal and fetal complications. It is important to educate women with thyroid disease regarding possible complications of uncontrolled thyroid disease during pregnancy. Ideally, women should make sure their thyroid problems are controlled prior to getting pregnant and they should have regular thyroid tests throughout pregnancy and postpartum.

— Alina Gavrilă, MD, MMSC

ATA THYROID BROCHURE LINKS

Graves' disease: <http://www.thyroid.org/what-is-graves-disease>

Thyroid Hormone Treatment: <http://www.thyroid.org/thyroid-hormone-treatment>

Thyroid and Pregnancy: <http://www.thyroid.org/thyroid-disease-and-pregnancy>

Postpartum Thyroiditis: <http://www.thyroid.org/postpartum-thyroiditis>

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THYROID AND PREGNANCY, continued

ABBREVIATIONS & DEFINITIONS

Hashimoto's thyroiditis: the most common cause of hypothyroidism in the United States. It is an autoimmune disease caused by antibodies that attack the thyroid and destroy it.

Graves' disease: the most common cause of hyperthyroidism in the United States. It is an autoimmune disease caused by antibodies that attack the thyroid and turn it on.

Hypothyroidism: a condition where the thyroid gland is underactive and does not produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

Primary hypothyroidism: the most common cause of hypothyroidism caused by failure of the thyroid gland.

Hyperthyroidism: a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

TSH: thyroid stimulating hormone – produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.

Miscarriage: this occurs when a baby dies in the first few months of a pregnancy, usually before 22 weeks of pregnancy.

Goiter: a thyroid gland that is enlarged for any reason is called a goiter. A goiter can be seen when the thyroid is overactive, underactive or functioning normally.

Gestational diabetes: diabetes that develops during pregnancy (gestation).

Preeclampsia: disorder characterized by development of hypertension and large amount of protein in the urine in the second half of pregnancy. If left untreated, it can progress to eclampsia and severe life-threatening complications.

Anemia: low blood count, specifically low levels of red blood cells which carry oxygen around to all of the cells in the body. Fatigue is a common symptom of anemia.