



## THYROID AND PREGNANCY

### Testing for hypothyroidism during pregnancy

#### BACKGROUND

Thyroid hormone plays an essential role in the development of a baby during pregnancy. Early in pregnancy the baby gets all of its thyroid hormone from the mother, so the mother's thyroid hormone status is very important. Hypothyroidism in the mother is associated with adverse health effects in the baby and complications during the pregnancy. Because of this, many physicians advocate testing all pregnant women for thyroid problems early in pregnancy, while others recommend testing for thyroid problems only in women that have certain risk factors for thyroid problems, such as a family history or an enlarged thyroid. The goal of this study was to determine how frequently pregnant women are tested for thyroid problems using a large national sample.

#### THE FULL ARTICLE TITLE:

Blatt AJ et al. National status of testing for hypothyroidism during pregnancy and postpartum. *J. Clin. Endocrinol. Metab.* 97(3): 777-784. 2012.

#### SUMMARY OF THE STUDY

This study examined thyroid function test results from pregnant women whose blood was sent to Quest Diagnostics laboratories for assessment between June 2005 and May 2008. Blood samples were available from a large number of pregnant women (502,036) and demonstrated that 23% of women ages 18-40 years had thyroid function tested during pregnancy. Of the women tested for thyroid dysfunction, 15.5 % (18,298 of 117,892) had an elevated TSH (based on pregnancy trimester normal ranges). Testing frequency increased with maternal age,

such that older pregnant women were more likely to have their thyroid function assessed and more likely (1.8 times) to have an elevated TSH compared to women aged 18-24 years. Thyroid testing showed some variability with ethnic background, with Asian women being tested at the highest rate and African American women at the lowest rate. The majority of women with an elevated TSH during pregnancy had normal T<sub>4</sub> values (97.6%), whereas only 2.4% had low T<sub>4</sub> levels.

#### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study shows that hypothyroidism during pregnancy is more common than generally expected and that testing rates during pregnancy are low. Currently, screening for thyroid disease during pregnancy is controversial. This study is important for the future care of patients, since it suggests that approximately 15.5% of pregnant women screened for thyroid problems will show some abnormality that may need to be addressed. Certainly, women who are at increased risk for thyroid disease or have concerns about thyroid problems should discuss these issues with their health care provider to determine whether thyroid testing is needed.

— Whitney Woodmansee, MD

#### ATA THYROID BROCHURE LINKS

Hypothyroidism: [http://thyroid.org/patients/patient\\_brochures/hypothyroidism.html](http://thyroid.org/patients/patient_brochures/hypothyroidism.html)

Thyroid and Pregnancy: [http://thyroid.org/patients/patient\\_brochures/pregnancy.html](http://thyroid.org/patients/patient_brochures/pregnancy.html)

#### ABBREVIATIONS & DEFINITIONS

**Hypothyroidism:** a condition where the thyroid gland is underactive and doesn't produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

**Thyroxine (T<sub>4</sub>):** the major hormone secreted by the thyroid gland. Thyroxine is broken down to produce

Triiodothyronine which causes most of the effects of the thyroid hormones.

**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.