



HYPOTHYROIDISM AND PREGNANCY

Pregnant women with mild hypothyroidism may be at increased risk for breech presentation at delivery

WHAT IS THE STUDY ABOUT?

It is well known that thyroid hormone plays an essential role for the development of the fetus during pregnancy. An initial study also suggested that certain “out of range” thyroid function tests were associated with a breech presentation during labor, which can result in a difficult delivery of the baby. Established risk factors for breech presentation and delivery include: low birth weight, first pregnancy, smoking and prematurity. The present study is much larger than the prior study and was designed to learn more about the connection between breech presentation at delivery and thyroid disease.

THE FULL ARTICLE TITLE:

Kuppens SM et al. Maternal thyroid function during gestation is related to breech presentation at term. Clin Endocrinology (Oxf) Volume 72, Issue 6, June, 2010, pp 820-824

WHAT WAS THE AIM OF THE STUDY?

The aim of the study is to determine if specific thyroid function tests can be used to predict breech presentation in order to understand the connection between thyroid disease and this pregnancy complication.

WHO WAS STUDIED?

The study group included 1058 pregnant women living in or near Eindhoven, The Netherlands, who delivered after 37 weeks of gestation.

HOW WAS THE STUDY DONE?

Thyroid function blood tests (TSH, free T₄ and TPO antibodies) were measured at 12, 24 and 36 weeks of pregnancy. Clinical factors were recorded including smoking status, family history of thyroid disease, whether it was a first pregnancy and birth weight of the baby.

WHAT WERE THE RESULTS OF THE STUDY?

A total of 108 women had a TSH >2.5, while 59 women had a TSH >2.89. Overall, 11% of women with a TSH >2.5 had a breech presentation, as compared to 4.8 % if TSH was

less than 2.5. Women with a TSH < 0.5 had no breech presentations. There was no relationship between FT₄ or TPO antibodies and breech presentation. As expected, breech presentation was more common if risk factors were present, such as smoking, first pregnancy and low birth weight.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

The earlier study by the same group with smaller numbers of patients did not demonstrate an association between TSH and breech presentation. However, that study did suggest an association between a low FT₄ and breech presentation, which was not found in the present study.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study provides another reason to maintain normal thyroid levels during pregnancy. Careful monitoring and treatment of thyroid problems during the entire pregnancy is recommended to increase the chances of successful pregnancy and delivery. Breech presentation is now recognized as associated with thyroid problems and may be considered one of the potentially preventable complications of thyroid problems during pregnancy.

— Jerrold Stock, MD

ATA THYROID BROCHURE LINKS

Hypothyroidism: http://thyroid.org/patients/patient_brochures/hypothyroidism.html

Thyroid and Pregnancy: http://thyroid.org/patients/patient_brochures/pregnancy.html

Thyroid Function Tests: http://thyroid.org/patients/patient_brochures/function_tests.html

continued on next page



HYPOTHYROIDISM AND PREGNANCY, continued



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 (T4): 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.

TPO antibodies: these are antibodies that attack the thyroid instead of bacteria and viruses, they are a marker for autoimmune thyroid disease, which is the main underlying cause for hypothyroidism and hyperthyroidism in the United States.

 <p>AMERICAN THYROID ASSOCIATION FOUNDED 1923</p>	 <p><i>Friends of the ATA</i> Founded 2005</p>
<p>Become a Friend of the ATA! Subscribe to Friends of the ATA e-news >> Get the latest thyroid health information. You'll be among the first to know the latest cutting-edge thyroid research that is important to you and your family.</p>	