



## THYROID AND PREGNANCY

### Pre-term birth and its relationship to hypothyroidism

#### BACKGROUND

It is well known that thyroid hormone has a major effect during pregnancy, both in the developing baby and in the mother. Even mild hypothyroidism has been associated with pre-term delivery. Low birth weight can be seen in babies born prematurely and previous studies suggested that low birth weight was associated with hypothyroidism in later life. The goal of this study was to examine pre-term birth and its effect on hypothyroidism in adulthood.

#### THE FULL ARTICLE TITLE:

Crump, C et al Preterm birth and risk of medically treated hypothyroidism in young adulthood. *Clin Endocrinol (Oxf)* 2011;75:255-260.

#### SUMMARY OF THE STUDY

A total of 629,806 individuals between 25 and 37 years of age were studied. A total of 27,935 (4.4%) were born prematurely (<37 weeks). Most of these (25,873, 4.1%) were born between 32 to 36 weeks. Compared to individuals who were born at full-term, those who were born prematurely were more likely to be male and/or a twin. A total of 11,159 (1.8%) individuals were prescribed at least one thyroid hormone medication per

year during the follow-up period and were presumed to be hypothyroid. Individuals who were born very pre-term (23 to 31 weeks) had a higher prevalence of being on thyroid hormone than those who were born full-term. Among individuals born prematurely (<37 weeks), twins had a higher prevalence of being on thyroid hormone than single births (2.3% vs. 1.8%).

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

Pre-term birth is associated with an increased risk of hypothyroidism that requires treatment in young adulthood. Hypothyroidism was more common in twins. While further studies are needed to assess this, this study suggests that physicians should follow thyroid tests more closely in twins and pre-term babies.

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#### 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.