

## **DEBATE: Walking a tightrope: universal thyroid testing could reduce pregnancy problems in some cases, but interfere with healthy pregnancies in others**

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Universal testing for thyroid function in pregnant women could reduce miscarriages and negative neurodevelopmental effects for the baby, but may also put healthy pregnancies at risk by prescribing unnecessary drugs to mothers. The debate 'Pregnant women should be screened for thyroid hormones and antibodies' will be held in Barcelona at the [European Society of Endocrinology](#) annual meeting, [ECE 2018](#), where two experts take opposing views on whether all pregnant women should be tested for abnormal thyroid function, or if this should only be offered to high risk mothers.

Maternal thyroid function during pregnancy is important for normal growth and development of the child. Abnormalities in thyroid function such as high or low thyroid hormone levels, or autoimmunity against the thyroid gland - are common during pregnancy, and have been associated with poor pregnancy outcomes including increased risk of miscarriage and negative effects on development of the baby's brain. Previous studies have investigated how mild thyroid abnormalities affect pregnancy with conflicting results; while some studies have found that thyroid changes are associated with detrimental effects for both child and mother-to-be, others have found no association. Most medical guidelines do not recommend universal thyroid testing - instead, they advise testing only high risk patients. However, many doctors and patients feel that this targeted approach misses many cases of abnormal thyroid function, and advocate that universal testing is a better strategy.

Dr Kristien Boelaert, from the University of Birmingham, UK, proposes universal screening could help detect thyroid problems that are currently missed in up to 75% pregnancies, and stresses that the method could be easily applicable and is a much more cost-effective approach.

"Just as it happens in blood pressure, thyroid function is a continuum and should be monitored to understand what is normal in each case. The point at which treatment should be started is unclear, which is why screening programmes should be established", Dr Boelaert states. "Abnormal thyroid function is easily detectable and can be effectively and inexpensively treated."

On the other side of the debate, Professor Brigitte Velkeniers, from the Vrije Universiteit Brussels, says that evidence for improved pregnancy outcomes following treatment of mild thyroid abnormalities is weak and based on poorly designed studies. Furthermore, 'normal' for thyroid hormones is a range, so determining whether levels are high or low will be complex and require monitoring over time.

"Of course, thyroid dysfunction, such as hyper or hypothyroidism, should be diagnosed and treated. Although small changes in thyroid activity have been associated with negative pregnancy outcomes, association does not mean cause. Age, BMI, or smoking status of the mother-to-be, may negatively affect the pregnancy, and are also associated with mild thyroid changes. So, using drugs to target these changes in thyroid function may be addressing the wrong problem", Professor Velkeniers says. "Additionally, sometimes thyroid autoimmunity can be detected even though the thyroid gland is working normally. When using drugs to treat mild variations in thyroid activity, it remains unclear whether potential benefits outweigh the possible harm."

More research is needed to establish normal thyroid activity during pregnancy, and both experts agree that the practicalities of universal screening would need further investigation to establish what stages of the pregnancy testing should take place, and who should take responsibility for the screening process.

## Notes for Editors

1. The debate “Pregnant women should be screened for thyroid hormones and antibodies” will take place on 22 May 2018, at the European Congress of Endocrinology at the Centre Convencions Internacional Barcelona, Spain.
2. For other press enquiries please contact the ECE 2018 press office:

**Aida de Heras**

Communications Executive  
European Society of Endocrinology  
Tel: (+44) (0)1454 642 206  
Mob: (+44) (0)7876824027  
Email: [aida.heras@bioscientifica.com](mailto:aida.heras@bioscientifica.com)

3. The European Congress of Endocrinology is held at Centre Convencions Internacional Barcelona, Spain on the 19-22 May 2018. See the [full scientific programme](#).
4. The [European Society of Endocrinology](#) was created to promote research, education and clinical practice in endocrinology by the organisation of conferences, training courses and publications, by raising public awareness, liaison with national and international legislators, and by any other appropriate means.