**Systematic review – studies reporting reference intervals**

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| **Author** | **Year** | **Title** | **Included** | **Reason for exclusion** |
| Abel et al. | 2018 | Iodine Intake is Associated with Thyroid Function in Mild to Moderately Iodine Deficient Pregnant Women | Yes |  |
| Akarsu et al. | 2016 | Gestation specific reference intervals for thyroid function tests in pregnancy | Yes |  |
| Almomin et al. | 2016 | Trimester-Specific Reference Intervals of Thyroid Function Testing in Pregnant Women from Basrah, Iraq Using Electrochemiluminescent Immunoassay | No | Additional exclusion criteria: acute and chronic illnesses. |
| Álvarez Ballano et al. | 2019 | Thyroid hormone reference ranges in pregnant women using 2 different immunoassays: the importance of the method over universal single values, in line with international recommendations of 2017 | Yes |  |
| Andersen et al. | 2019 | Pregnancy Week-Specific Reference Ranges for Thyrotropin and Free Thyroxine in the North Denmark Region Pregnancy Cohort | Yes |  |
| Andersen et al. | 2020 | Classification of Thyroid Dysfunction in Pregnant Women Differs by Analytical Method and Type of Thyroid Function Test | No | Additional exclusion criteria: autoimmune disease. |
| Azizi Fereidoun et al. | 2013 | Establishment of the trimester-specific reference range for free thyroxine index | No | Exclusion of participants with aberrant laboratory measurements (TSH >4.5 mIU/L and T4 <5.5 μg/dL). Use of different method for calculating reference limits. |
| Berg et al. | 2015 | Assessing the relationship between perfluoroalkyl substances, thyroid hormones and binding proteins in pregnant women; a longitudinal mixed effects approach | No | No Exclusion of TPOAb-positive participants. |
| Bliddal et al. | 2014 | Gestational age-specific reference ranges from different laboratories misclassify pregnant women's thyroid status: Comparison of two longitudinal prospective cohort studies | Yes |  |
| Boas et al. | 2009 | Narrow intra-individual variation of maternal thyroid function in pregnancy based on a longitudinal study on 132 women | Yes |  |
| Bocos-Terraz et al. | 2009 | Thyroid hormones according to gestational age in pregnant Spanish women | Yes |  |
| Breathnach et al. | 2013 | Subclinical hypothyroidism as a risk factor for placental abruption: Evidence from a low-risk primigravid population | No | No exclusion of pre-pregnancy thyroid disease, thyroid medication. Use of different method for calculating reference limits. |
| Castillo et al. | 2018 | Thyroid-stimulating hormone reference ranges in the first trimester of pregnancy in an iodine-sufficient country | Yes |  |
| Chen et al. | 2020 | New trimester-specific reference intervals for clinical biochemical tests in Taiwanese pregnant women-cohort of TMICS | No | No Exclusion of TPOAb-positive participants. |
| Cotzias et al. | 2008 | A study to establish gestation-specific reference intervals for thyroid function tests in normal singleton pregnancy | No | No Exclusion of TPOAb-positive participants. |
| Dashe et al. | 2005 | Thyroid-stimulating hormone in singleton and twin pregnancy: Importance of gestational age-specific reference ranges | No | No Exclusion of TPOAb-positive participants. No exclusion of pre-pregnancy thyroid disease. |
| Derakhshan et al. | 2018 | Reference Ranges and Determinants of Thyroid Function during Early Pregnancy: The SELMA Study | Yes |  |
| Dhatt et al et al. | 2006 | Thyrotrophin and free thyroxine trimester-specific reference intervals in a mixed ethnic pregnant population in the United Arab Emirates | No | Use of different method for calculating reference limits. |
| Dorizzi et al. | 2010 | An approach to establish reference intervals for thyrotropin in pregnancy using the ADVIA® Centaur™ analyzer | No | No Exclusion of TPOAb-positive participants, week-specific reference intervals. Use of different method for calculating reference limits. |
| Ekinci et al. | 2013 | Longitudinal assessment of thyroid function in pregnancy | Yes |  |
| Elebrashy et al. | 2020 | Assessment of thyroid functions and thyroid volume in normal pregnant Egyptian females | No | No Exclusion of TPOAb-positive participants, additional exclusion criteria: malignancies, liver and kidney disease. Use of different method for calculating reference limits. |
| Elhaj et al. | 2016 | Trimester-specific thyroid hormone reference ranges in Sudanese women | No | No Exclusion of TPOAb-positive participants, additional exclusion criteria: liver and kidney disease. Use of different method for calculating reference limits. |
| Fan et al. | 2016 | Comparison of the reference intervals used for the evaluation of maternal thyroid function during pregnancy using sequential and nonsequential methods | No | Additional exclusion criteria: autoimmune disease, anemia. |
| Fang et al. | 2017 | Difference of thyroid hormone reference ranges in diagnosis of thyroid functions between normal pregnant women in the early, middle and late pregnancy and normal adults | No | No Exclusion of TPOAb-positive participants, method unclear regarding reference limit calculating |
| Fernández Martínez et al. | 2018 | Influence of thyroid peroxidase antibodies on TSH levels of pregnant women and maternal-fetal complications | Yes |  |
| Fister et al. | 2011 | Thyroid function in the third trimester of pregnancy and after delivery in an area of adequate iodine intake | Yes |  |
| Friis Petersen et al. | 2019 | Early pregnancy reference intervals; 29 serum analytes from 4 to 12 weeks' gestation in naturally conceived and uncomplicated pregnancies resulting in live births | No | No Exclusion of TPOAb-positive participants. |
| Fuse et al. | 2013 | Gestational changes of thyroid function and urinary iodine thyroid antibody-negative Japanese women | No | Use of different method for calculating reference limits. |
| Geno et al. | 2021 | Evaluation of Thyroid Function in Pregnant Women Using Automated Immunoassays | No | No Exclusion of TPOAb-positive participants. |
| Gholami et al. | 2021 | Maternal thyroid function test level during the first trimester of pregnancy at a center yazd, iran: A cross-sectional study | No | No Exclusion of TPOAb-positive participants. Use of different method for calculating reference limits. |
| Gong et al. | 2008 | Free thyroxine reference interval in each trimester of pregnancy determined with the Roche Modular E-170 electrochemiluminescent immunoassay | No | No exclusion of pre-pregnancy thyroid disease. |
| Han et al. | 2018 | Reference intervals of trimester-specific thyroid stimulating hormone and free thyroxine in Chinese women established by experimental and statistical methods | Yes |  |
| Han et al. | 2013 | Longitudinal evaluation of thyroid autoimmunity and function in pregnant Korean women | No | No exclusion of pre-pregnancy thyroid disease. |
| Hantoushzadeh et al. | 2013 | Correlation of nuchal translucency and thyroxine at 11-13 weeks of gestation | No | Additional exclusion criteria: autoimmune disease. |
| Hernández et al. | 2021 | Reference intervals of thyroid function tests assessed by immunoassay and mass spectrometry in healthy pregnant women living in catalonia | Yes |  |
| Ho et al. | 2017 | Gestational age-specific reference intervals for serum thyroid hormone levels in a multi-ethnic population | No | Additional exclusion criteria: autoimmune disease, chronic diseases, renal disease. |
| Hua et al. | 2021 | The association between COVID-19 pandemic and maternal isolated hypothyroxinemia in first and second trimesters | Yes |  |
| Huang et al. | 2021 | Establishment of assay method- and trimester-specific reference intervals for thyroid hormones during pregnancy in Chengdu, China | No | Additional exclusion criteria: autoimmune disease liver and kidney disease, blood disease, malignancies. |
| Huang et al. | 2019 | Isolated effect of maternal thyroid-stimulating hormone, free thyroxine and antithyroid peroxidase antibodies in early pregnancy on gestational diabetes mellitus: A birth cohort study in China | No | No exclusion of pre-pregnancy thyroid disease. |
| Jebasingh et al. | 2016 | Reference intervals in evaluation of maternal thyroid function of Manipuri women | No | Use of different method for calculating reference limits. Addiotional exlcusion criteria (e.g. connective tissue disease). Unclear if TPOAb-positive participants excluded |
| Joosen et al. | 2016 | TSH and fT4 during pregnancy: An observational study and a review of the literature | Yes |  |
| Karcaaltincaba et al. | 2020 | Prevalences of subclinical and overt hypothyroidism with universal screening in early pregnancy | No | No Exclusion of TPOAb-positive participants. |
| Khalil et al. | 2018 | Trimester specific reference ranges for serum TSH and Free T4 among United Arab Emirates pregnant women | Yes |  |
| Kim et al. | 2015 | Gestational Age-specific Cut-off Values Are Needed for Diagnosis of Subclinical Hypothyroidism in Early Pregnancy | No | No Exclusion of TPOAb-positive participants. |
| Lai et al. | 2020 | Association between thyroid hormone parameters during early pregnancy and gestational hypertension: a prospective cohort study | No | No Exclusion of TPOAb-positive participants. |
| La'ulu et al. | 2007 | Second-trimester reference intervals for thyroid tests: The role of ethnicity | Yes |  |
| Levie et al. | 2019 | The Association of Maternal Iodine Status in Early Pregnancy with Thyroid Function in the Swedish Environmental Longitudinal, Mother and Child, Asthma and Allergy Study | No | Reference intervals stratified according to iodine intake |
| Li et al. | 2018 | Effect of mildly elevated thyroid-stimulating hormone during the first trimester on adverse pregnancy outcomes | Yes |  |
| Li et al. | 2014 | Assessment of thyroid function during first-trimester pregnancy: What is the rational upper limit of serum TSH during the first trimester in chinese pregnant women? | Yes |  |
| Li et al. | 2010 | Abnormalities of maternal thyroid function during pregnancy affect neuropsychological development of their children at 25-30 months | Yes |  |
| Lin et al. | 2014 | Analysis of thyroid peroxidase antibody in early pregnancy | Yes |  |
| Liu et al. | 2014 | Maternal subclinical hypothyroidism, thyroid autoimmunity, and the risk of miscarriage: A prospective cohort study | Yes |  |
| Maji et al. | 2014 | Establishment of trimester-specific reference intervals of serum TSH & fT4 in a pregnant Indian population at North Kolkata | No | Additional exclusion criteria: autoimmune disease, history of pregnancy complications or miscarriage. |
| Mansourian et al. | 2010 | Maternal thyroid stimulating hormone levels during the first trimester of pregnancy at the south-east of the Caspian sea in Iran | No | No Exclusion of TPOAb-positive participants. |
| Mehran et al. | 2013 | Trimester-specific reference ranges for thyroid hormones in iranian pregnant women | No | Use of different method for calculating reference limits. |
| Ming et al. | 2014 | Reference Intervals Settting of Thyroid Hormones during Different Phases of Pregnancy Among Thyroid Antibody Negative Women in Quanzhou, Fujian | Yes |  |
| Moon et al. | 2015 | Establishment of trimester-specific reference intervals for thyroid hormones in Korean pregnant women | Yes |  |
| Morais et al. | 2018 | Recent recommendations from ATA guidelines to define the upper reference range for serum TSH in the first trimester match reference ranges for pregnant women in Rio de Janeiro | Yes |  |
| Mumtaz et al. | 2021 | Trimester-specific reference ranges for thyroid hormones of pregnant females at tertiary care hospitals in Lahore, Pakistan | Yes |  |
| Murillo-Llorente et al. | 2020 | Reference values of thyroid hormones during the first trimester of pregnancy in valencian community (Spain) and their relationship with iodine intake | Yes |  |
| Nazarpour et al. | 2018 | Establishment of trimester-specific reference range for thyroid hormones during pregnancy | No | Additional exclusion criteria: autoimmune disease, infectious diseases, renal and liver disease, history of pregnancy complications, age above 45 years. |
| Ochoa et al. | 2017 | Impact of using specific reference intervals on the diagnosis of thyroid dysfunction during pregnancy | No | Additional exclusion criteria: autoimmune disease, chronic disease. |
| Ollero et al. | 2019 | Thyroid Function Reference Values in Healthy Iodine-Sufficient Pregnant Women and Influence of Thyroid Nodules on Thyrotropin and Free Thyroxine Values | Yes |  |
| Panesar et al. | 2001 | Reference intervals for thyroid hormones in pregnant Chinese women | No | No Exclusion of TPOAb-positive participants. |
| Patal et al. | 2016 | Trimester-specific reference interval for thyroid function tests in pregnant filipino women | Yes |  |
| Pramanik et al. | 2020 | Trimester-specific reference intervals for thyroid function parameters in Indian pregnant women during final phase of transition to iodine sufficiency | Yes |  |
| Quinn et al. | 2014 | Thyroid function and thyroid autoimmunity in apparently healthy pregnant and non-pregnant Mexican women | Yes |  |
| Quinn et al. | 2005 | Prevalence of abnormal thyroid stimulating hormone and thyroid peroxidase antibody-positive results in a population of pregnant women in the Samara region of the Russian Federation | No | Exclusion of pre-pregnancy thyroid disease not reported. |
| Rajput et al. | 2016 | Trimester-specific reference interval for thyroid hormones during pregnancy at a Tertiary Care Hospital in Haryana, India | Yes |  |
| Ren et al. | 2017 | Comparative analysis of thyroid function parameters in pregnant women | Yes |  |
| Salek et al. | 2019 | The prevalence of maternal hypothyroidism in first trimester screening from 11 to 14 weeks of gestation | Yes |  |
| Šálek et al. | 2018 | Maternal thyroid-stimulating hormone reference ranges for first trimester screening from 11 to 14 weeks of gestation | Yes |  |
| Santiago et al. | 2011 | Reference values for thyroid hormones in the population of pregnant women in jaen (Spain) | No | No Exclusion of TPOAb-positive participants. Use of different method for calculating reference limits. |
| Shan et al. | 2009 | A study for maternal thyroid hormone deficiency during the first half of pregnancy in China | No | Additional exclusion criteria: autoimmune disease, hyperemesis gravidarum. |
| Silvio et al. | 2009 | Method specific second-trimester reference intervals for thyroid-stimulating hormone and free thyroxine | No | Exclusion of pre-pregnancy thyroid disease not reported. |
| Sletner et al. | 2021 | Thyroid Function during Pregnancy in A Multiethnic Population in Norway | Yes |  |
| Soldin et al. | 2007 | Gestation-specific thyroxine and thyroid stimulating hormone levels in the United States and worldwide | No | Use of different method for calculating reference limits. |
| Springer et al. | 2009 | Reference intervals in evaluation of maternal thyroid function during the first trimester of pregnancy | Yes |  |
| Springer et al. | 2014 | Reference intervals for thyroid markers in early pregnancy determined by 7 different analytical systems | No | Additional exclusion criteria: autoimmune disease, TSH > 8 mU/L. |
| Stricker et al. | 2007 | Evaluation of maternal thyroid function during pregnancy: The importance of using gestational age-specific reference intervals | Yes |  |
| Sun et al. | 2018 | The reference intervals of thyroid hormones for pregnant women in Zhejiang Province | No | Additional exclusion criteria: autoimmune disease. |
| Veltri et al. | 2017 | Maternal thyroid parameters in pregnant women with different ethnic backgrounds: Do ethnicity-specific reference ranges improve the diagnosis of subclinical hypothyroidism? | Yes |  |
| Wang et al. | 2019 | The Diverse Upper Reference Limits of Serum Thyroid-Stimulating Hormone on the Same Platform for Pregnant Women in China | Yes |  |
| Wang et al. | 2011 | Assessment of thyroid function during pregnancy: The advantage of self-sequential longitudinal reference intervals | No | Additional exclusion criteria: autoimmune disease. |
| Xie et al. | 2020 | Effect of thyroxine level on gestational diabetes mellitus and pregnancy outcome | Yes |  |
| Xing et al. | 2016 | Trimester- and assay-specific thyroid reference intervals for pregnant women in China | Yes |  |
| Yan et al. | 2011 | Trimester- and method-specific reference intervals for thyroid tests in pregnant Chinese women: methodology, euthyroid definition and iodine status can influence the setting of reference intervals | No | Additional exclusion criteria: autoimmune disease, TSH above 5 mU/L. |
| Yang et al. | 2019 | Thyroid function reference ranges during pregnancy in a large Chinese population and comparison with current guidelines | Yes |  |
| Yu et al. | 2014 | Reference interval in preliminary investigation of maternal thyroid function during pregnancy in Shenzhen China | Yes |  |
| Yuen et al. | 2020 | Development of Gestational Age-Specific Thyroid Function Test Reference Intervals in Four Analytic Platforms Through Multilevel Modeling | Yes |  |
| Zha et al. | 2014 | Establishment of reference range for thyroid hormones in normal pregnant women in China's coastal area | No | No Exclusion of TPOAb-positive participants. |
| Zhang et al. | 2019 | Association of Maternal Thyroid Function and Thyroidal Response to Human Chorionic Gonadotropin with Early Fetal Growth | Yes |  |
| Zhang et al. | 2015 | Establishment of trimester-specific thyroid stimulating hormone and free thyroxine reference interval in pregnant Chinese women using the Beckman Coulter UniCel™ DxI 600 | Yes |  |
| Zhang et al. | 2016 | Reference Intervals of Thyroid Function during Pregnancy: Self-Sequential Longitudinal Study Versus Cross-Sectional Study | Yes |  |
| Zhou et al. | 2019 | Analysis of detection results of thyroid function-related indexes in pregnant women and establishment of the reference interval | No | Additional exclusion criteria: autoimmune disease. |