

Supplementary Table 2

The American Thyroid Association 2026 Guidelines for Thyroid Disease in Preconception, Pregnancy, and Postpartum

1. Details for all systematic literature searches

20220411 Details of overall search for identification of randomized trials, meta-analyses and systematic reviews

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	1510	1492
Medline ALL	Ovid	1946 - Present	1193	184
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	236	73
Total			2939	1749

*Manually deleted abstracts from trial registries

Embase – 1510 refs

('thyroid function'/mj/exp OR 'thyroid disease'/mj OR 'hypothyroidism'/mj OR 'subclinical hypothyroidism'/mj OR 'hyperthyroidism'/mj OR 'subclinical hyperthyroidism'/mj OR 'Graves disease'/mj OR 'thyroid function test'/mj OR 'thyrotropin'/mj OR 'thyrotropin blood level'/mj OR 'thyroid hormone'/mj OR 'thyroid hormone blood level'/mj/exp OR 'thyroid peroxidase antibody'/mj/exp OR 'thyroglobulin antibody'/mj OR 'liothyronine'/mj/exp OR 'levothyroxine'/mj OR 'postpartum thyroiditis'/mj OR 'thyroid tumor'/mj/exp OR 'radioactive iodine'/mj OR 'antithyroid agent'/mj OR 'carbimazole'/mj OR 'thyroidectomy'/mj OR 'propylthiouracil'/mj OR 'iodine 123'/mj OR 'radiopharmaceutical agent'/mj OR 'external beam radiotherapy'/mj OR 'radiofrequency ablation'/mj OR 'iodine deficiency'/mj OR (GTT OR RAI OR PTU OR EBRT OR RFA OR (thyroid* NEAR/3 (function* OR dysfunction* OR hormone* OR autoantibod* OR antibod* OR disease* OR autoimmune* OR cancer* OR neoplas* OR nodule* OR tumor* OR tumour*)) OR thyroidit* OR hyperthyro* OR hypothyro* OR ((gestat* NEAR/3 (thyrotoxic*)) OR thyrotropin* OR tsh OR levothyrox* OR ((t4 OR ft4 OR t-4 OR ft-4 OR tsh OR liothyronin* OR thyroxin* OR triiodothyronin* OR t3 OR ft3 OR ft-3 OR t-3) NEAR/3 (free OR plasma OR blood OR serum OR level* OR concentrat* OR low OR high OR elevat* OR decrease* OR increase*)) OR (thyroid* NEAR/3 peroxidase* NEAR/3 antibod*) OR ((tpo OR TPOAb OR TgAb OR thyroglobulin* OR thyroperoxidase* OR thyroperoxid*) NEAR/3 (antibod* OR positiv* OR negativ* OR status*)) OR euthyroid* OR graves OR goiter OR triiodothyronin* OR ((postpartum) NEAR/3 (thyroiditis)) OR radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) NEAR/3 (status OR urinary OR excretion OR supplement* OR deficient* OR radio*)) OR ((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR thyroidectomy* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) NEAR/3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) NEAR/3 (ablation*)))ti) AND ('pregnancy'/mj/exp OR 'pregnant woman'/mj OR 'mother'/mj OR 'prenatal exposure'/mj OR 'pregnancy outcome'/mj OR 'pregnancy disorder'/mj OR 'preeclampsia'/mj OR 'spontaneous abortion'/mj OR 'live birth'/mj OR 'premature labor'/mj OR 'birth weight'/mj/exp OR 'menstrual irregularity'/mj OR 'pregnancy complication'/mj OR 'prenatal period'/mj OR 'prenatal growth'/mj OR 'infertility therapy'/mj/exp OR 'fertility'/mj OR 'follicle-stimulating hormone'/mj OR 'Muellerian inhibiting factor'/mj OR 'hyperemesis gravidarum'/mj OR 'postpartum thyroiditis'/mj OR 'puerperium'/mj OR 'lactation'/mj OR 'fetus disease'/mj OR 'newborn disease'/mj OR 'premature fetus membrane rupture'/mj OR 'pregnancy diabetes mellitus'/mj OR 'small for date infant'/mj OR 'intrauterine growth retardation'/mj OR (ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR maternal* OR fertilit* OR infertilit* OR subfertilit* OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo-disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in-vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR preeclamp* OR pre-eclamp* OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) NEAR/3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) NEAR/3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR ((menstrual* OR menstruat*) NEAR/3 (irregular*)) OR ((follicle-stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((embryo) NEAR/3 (qualit*)) OR ((hyperemes*) NEAR/3 (gravidar*)) OR postpartum OR post-partum OR puerperium OR lactation OR breastfeeding OR milk-production OR ((fetal OR neonatal) NEAR/3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn OR neonat*) NEAR/3 (disease* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR

gestational-diabet* OR ((placenta*) NEAR/3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) NEAR/3 (infant*)) OR preconcept*.ti) AND ('systematic review'/de OR 'meta analysis'/exp OR 'Controlled clinical trial'/exp OR 'Crossover procedure'/de OR 'Double-blind procedure'/de OR 'Single-blind procedure'/de OR ((systematic* NEAR/3 review*) OR meta-analy* OR random* OR factorial* OR crossover* OR (cross NEXT/1 over*) OR placebo* OR ((doubl* OR singl*) NEXT/1 blind*) OR assign* OR allocat* OR volunteer* OR trial OR groups):ab,ti) NOT ((animal/exp OR animal*:de OR nonhuman/de) NOT ('human'/exp)) NOT ([Conference Abstract]/lim OR [preprint]/lim)

Medline – 1193 refs

(*Thyroid Diseases/ OR *Hypothyroidism/ OR *Hyperthyroidism/ OR *Graves Disease/ OR *Thyroid Function Tests/ OR *Thyrotropin/ OR *Thyroid Hormones/ OR *Triiodothyronine/ OR *Thyroxine/ OR *Postpartum Thyroiditis/ OR *Thyroid Neoplasms/ OR *Antithyroid Agents/ OR *Carbimazole/ OR *Thyroidectomy/ OR *Propylthiouracil/ OR *Radiofrequency Ablation/ OR (GTT OR RAI OR PTU OR EBRT OR RFA OR (thyroid* ADJ3 (function* OR dysfunction* OR hormone* OR autoantibod* OR antibod* OR diseas* OR autoimmun* OR cancer* OR neoplas* OR nodule* OR tumor* OR tumour*)) OR thyroidit* OR hyperthyro* OR hypothyro* OR ((gestat*) ADJ3 (thyrotoxic*)) OR thyrotropin* OR tsh OR levothyrox* OR ((t4 OR ft4 OR t4 OR ft-4 OR tsh OR liothyronin* OR thyroxin* OR triiodothyronin* OR t3 OR ft3 OR ft-3 OR t-3) ADJ3 (free OR plasma OR blood OR serum OR level* OR concentrat* OR low OR high OR elevat* OR decrease* OR increase*)) OR (thyroid* ADJ3 peroxidase* ADJ3 antibod*) OR ((tpo OR TPOAb OR TgAb OR thyroglobulin* OR thyroperoxidas* OR thyroperoxid*) ADJ3 (antibod* OR positiv* OR negativ* OR status*)) OR euthyroid* OR graves OR goiter OR triiodothyronin* OR ((postpartum) ADJ3 (thyroiditis)) OR radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) ADJ3 (status OR urinary OR excretion OR supplement* OR deficient* OR radio*)) OR ((antithyroid* OR anti-thyroid*) ADJ3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR thyroidectom* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) ADJ3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) ADJ3 (ablation*))).ti.) AND (exp *Pregnancy/ OR *Pregnant Women/ OR *Mothers/ OR *Pregnancy Outcome/ OR *Pre-Eclampsia/ OR *Abortion, Spontaneous/ OR *Live Birth/ OR *Obstetric Labor, Premature/ OR exp *Birth Weight/ OR *Menstruation Disturbances/ OR *Pregnancy Complications/ OR *Fertility/ OR *Follicle Stimulating Hormone/ OR *Anti-Mullerian Hormone/ OR *Hyperemesis Gravidarum/ OR *Postpartum Thyroiditis/ OR *Postpartum Period/ OR *Lactation/ OR *Infant, Newborn, Diseases/ OR *Pregnancy in Diabetics/ OR *Fetal Growth Retardation/ OR (ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR maternal* OR fertilit* OR infertilit* OR subfertilit* OR ((assist*) ADJ3 (reproduct*)) OR ((artificial*) ADJ3 (inseminat*)) OR embryo-disposit* OR ((gamete*) ADJ3 (transfer*)) OR ((in-vitro) ADJ3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) ADJ3 (abort*)) OR preeclamp* OR pre-eclamp* OR ((prematur* OR preterm* OR live*) ADJ3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) ADJ3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) ADJ3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR ((menstrual* OR menstruat*) ADJ3 (irregular*)) OR ((follicle-stimulat* OR folliclestimulat*) ADJ3 (hormon*)) OR muellerian* OR (oocyt*) ADJ3 (retriev*)) OR ((embryo) ADJ3 (qualit*)) OR ((hyperemes*) ADJ3 (gravidar*)) OR postpartum OR post-partum OR puerperium OR lactation OR breastfeeding OR milk-production OR ((fetal OR neonatal) ADJ3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn OR neonat*) ADJ3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational-diabet* OR ((placenta*) ADJ3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) ADJ3 (infant*)) OR preconcept*.ti.) AND (Systematic Review/ OR Meta-Analysis/ OR exp Controlled Clinical Trial/ OR ((systematic* ADJ3 review*) OR meta-analy* OR random* OR factorial* OR crossover* OR (cross ADJ over*) OR placebo* OR ((doubl* OR singl*) ADJ blind*) OR assign* OR allocat* OR volunteer* OR trial OR groups).ab,ti.) NOT (exp animals/ NOT humans/) NOT (news OR congres* OR abstract* OR book* OR chapter* OR dissertation abstract*).pt.

Cochrane – 236 refs

((GTT OR RAI OR PTU OR EBRT OR RFA OR (thyroid* NEAR/3 (function* OR dysfunction* OR hormone* OR autoantibod* OR antibod* OR diseas* OR autoimmun* OR cancer* OR neoplas* OR nodule* OR tumor* OR tumour*)) OR thyroidit* OR hyperthyro* OR hypothyro* OR ((gestat*) NEAR/3 (thyrotoxic*)) OR thyrotropin* OR tsh OR levothyrox* OR ((t4 OR ft4 OR t4 OR ft-4 OR tsh OR liothyronin* OR thyroxin* OR triiodothyronin* OR t3 OR ft3 OR ft-3 OR t-3) ADJ3 (free OR plasma OR blood OR serum OR level* OR concentrat* OR low OR high OR elevat* OR decrease* OR increase*)) OR (thyroid* NEAR/3 peroxidase* NEAR/3 antibod*) OR ((tpo OR TPOAb OR TgAb OR thyroglobulin* OR thyroperoxidas* OR thyroperoxid*) NEAR/3 (antibod* OR positiv* OR negativ* OR status*)) OR euthyroid* OR graves OR goiter OR triiodothyronin* OR ((postpartum) NEAR/3 (thyroiditis)) OR radioiodine* OR radioiodide* OR iodine NEXT/1 123 OR pertechnate OR ((iodine OR iodide) NEAR/3 (status OR urinary OR excretion OR supplement* OR deficient* OR radio*)) OR ((antithyroid* OR anti NEXT/1 thyroid*) NEAR/3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR thyroidectom* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) NEAR/3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) NEAR/3 (ablation*))).ti) AND ((ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR maternal* OR fertilit* OR infertilit* OR subfertilit* OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo NEXT/1 disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in NEXT/1 vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR preeclamp* OR pre NEXT/1 eclamp* OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) NEAR/3 (weight*)) OR

((neonatal* OR newborn OR child* OR offspring*) NEAR/3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR ((menstrual* OR menstruat*) NEAR/3 (irregular*)) OR ((follicle NEXT/1 stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR (oocyt*) NEAR/3 (retriev*) OR ((embryo) NEAR/3 (qualit*)) OR ((hyperemes*) NEAR/3 (gravidar*)) OR postpartum OR post NEXT/1 partum OR puerperium OR lactation OR breastfeeding OR milk NEXT/1 production OR ((fetal OR neonatal) NEAR/3 (hyperthyroidism OR ICU OR intensive NEXT/1 care)) OR ((fetal OR foetus OR fetus OR newborn OR neonat*) NEAR/3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational NEXT/1 diabet* OR ((placenta*) NEAR/3 (abruption)) OR ((small NEXT/1 for NEXT/1 date OR small NEXT/1 for NEXT/1 gestational NEXT/1 age OR large NEXT/1 for NEXT/1 date OR large NEXT/1 for NEXT/1 gestational NEXT/1 age) NEAR/3 (infant*)) OR preconcept*):ti

20220926 Risk factor search 1

What are risk factors for thyroid dysfunction* during pregnancy? (*separate search for: overt hypothyroidism, subclinical hypothyroidism, hypothyroxinemia, TPO antibody positivity)

- a) In women seeking pregnancy from the general population
- b) In pregnant women, upon first presentation to a caregiver

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	1234	677
Medline ALL	Ovid	1946 - Present	652	649
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	87	39
Total			1973	1365

Embase – 1234 refs

('hypothyroidism'/exp/mj OR 'thyroid peroxidase antibody'/de/mj OR (hypothyroid* OR hypothyroxinemia* OR ((thyroid-peroxidase*) NEXT/1 (autoantibod* OR antibod*)) OR TPOAb OR anti-TPO OR ((thyroid*) NEAR/3 (dysfunction* OR function*)):ti,kw) AND ('pregnancy'/exp OR 'pregnant woman'/de OR 'mother'/de OR (pregnan* OR mother* OR maternal* OR preconcept*):ab,ti,kw) AND ('risk'/exp OR 'prediction'/de OR 'predictive model'/de OR 'predictive value'/de OR 'regression model'/de OR 'odds ratio'/de OR (risk* OR predict* OR regression* OR odd-ratio*):ab,ti,kw) AND ('cohort analysis'/de OR 'clinical study'/exp OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective* OR population-based*):ab,ti,kw)

Medline – 652 refs

(*Hypothyroidism/ OR (hypothyroid* OR hypothyroxinemia* OR ((thyroid-peroxidase*) ADJ (autoantibod* OR antibod*)) OR TPOAb OR anti-TPO OR ((thyroid*) ADJ3 (dysfunction* OR function*)):ti,kf.) AND (exp *Pregnancy/ OR *Pregnant Women/ OR Mothers/ OR (pregnan* OR mother* OR maternal* OR preconcept*):ab,ti,kf.) AND (exp Risk/ OR Predictive Value of Tests/ OR Odds Ratio/ OR (risk* OR predict* OR regression* OR odd-ratio*):ab,ti,kw.) AND (exp Cohort Studies/ OR exp Clinical Study/ OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective* OR population-based*):ab,ti,kf.)

Cochrane – 87 refs

((hypothyroid* OR hypothyroxinemia* OR ((thyroid-peroxidase*) NEXT/1 (autoantibod* OR antibod*)) OR TPOAb OR anti-TPO OR ((thyroid*) NEAR/3 (dysfunction* OR function*)):ti,kw) AND ((pregnan* OR mother* OR maternal* OR preconcept*):ab,ti,kw) AND ((risk* OR predict* OR regression* OR odd-ratio*):ab,ti,kw) AND ((random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective* OR population-based*):ab,ti,kw)

20220915 ART search 1: Does levothyroxine treatment of overt hypothyroidism improve (sub)fertility outcomes, ART specific outcomes, miscarriage risk, live birth?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	290	286
Medline ALL	Ovid	1946 - Present	154	46

Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	74	61
Total			518	393

*Manually deleted abstracts from trial registries

(Sub)fertility (including ovarian reserve)=Irregular menstrual cycles, time to pregnancy >12 months, or serum ovarian reserve markers (follicle stimulating hormone, anti-Mullerian hormone)

ART-specific outcomes=Number of oocytes retrieved, fertilization rate, embryo quality, implantation rate, pregnancy rates

Embase – 290 refs

('hypothyroidism'/de/mj OR (hypothyro* OR TSH-deficien*):ti,kw) AND ('pregnancy outcome'/de/mj OR 'live birth'/de/mj OR 'premature labor'/de/mj OR 'time to pregnancy'/de/mj OR 'menstrual irregularity'/de/mj OR 'fertility'/de/mj OR 'follicotropin'/de/mj OR 'Muellerian inhibiting factor'/de/mj OR (ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan* OR perinatal*) NEXT/1 (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) NEAR/3 (irregular* OR disturbanc*) OR ((follicle-stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo-disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in-vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) NEAR/3 (qualit*)):ti,kw) AND ('cohort analysis'/de OR 'clinical study'/exp OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*):ab,ti,kw) NOT ((animal/exp OR animal*:de OR nonhuman/de) NOT ('human/exp)) NOT ([Conference Abstract]/lim OR [preprint]/lim) NOT (subclinical:ti)

Medline – 154 refs

(*Hypothyroidism/ OR (hypothyro* OR TSH-deficien*).ti,kf.) AND (*Pregnancy Outcome/ OR *Live Birth/ OR exp *Obstetric Labor, Premature/ OR *Time-to-Pregnancy/ OR *Menstruation Disturbances/ OR *Fertility/ OR *Follicle Stimulating Hormone/ OR *Anti-Mullerian Hormone/ OR (ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan* OR perinatal*) ADJ (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) ADJ3 (irregular* OR disturbanc*)) OR ((follicle-stimulat* OR folliclestimulat*) ADJ3 (hormon*)) OR muellerian* OR ((oocyt*) ADJ3 (retriev*)) OR ((assist*) ADJ3 (reproduct*)) OR ((artificial*) ADJ3 (inseminat*)) OR embryo-disposit* OR ((gamete*) ADJ3 (transfer*)) OR ((in-vitro) ADJ3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) ADJ3 (abort*)) OR ((prematur* OR preterm* OR live*) ADJ3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) ADJ3 (qualit*)):ti,kf.) AND (exp Cohort Studies/ OR exp Clinical Study/ OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*):ab,ti,kf) NOT (exp animals/ NOT humans/) NOT (news OR congres* OR abstract* OR book* OR chapter* OR dissertation abstract*).pt. NOT (subclinical.ti.)

Cochrane – 74 refs

((hypothyro* OR TSH NEXT/1 deficien*):ti,kw) AND ((ART OR IVF OR FSH OR time NEXT/1 to NEXT/1 pregnan* OR ((pregnan* OR perinatal*) NEXT/1 (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) NEAR/3 (irregular* OR disturbanc*)) OR ((follicle NEXT/1 stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo NEXT/1 disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in NEXT/1 vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) NEAR/3 (qualit*)):ti,kw)

20220915 ART search 2: Do antithyroid drugs, radioactive iodine treatment or surgical treatment of non-Graves' overt hyperthyroidism improve (sub)fertility outcomes or ART specific outcomes?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	250	249
Medline ALL	Ovid	1946 - Present	101	29
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	7	2
Total			358	280

*Manually deleted abstracts from trial registries

(Sub)fertility (including ovarian reserve)=Irregular menstrual cycles, time to pregnancy >12 months, or serum ovarian reserve markers (follicle stimulating hormone, anti-Mullerian hormone)

ART-specific outcomes=Number of oocytes retrieved, fertilization rate, embryo quality, implantation rate, pregnancy rates

Embase – 250 refs

('radioactive iodine'/de OR 'antithyroid agent'/de OR 'carbimazole'/de OR 'thyroidectomy'/de OR 'propylthiouracil'/de OR 'iodine 123'/de OR 'radiopharmaceutical agent'/de OR 'external beam radiotherapy'/de OR 'radiofrequency ablation'/de OR (radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) NEAR/3 (radio*)) OR ((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR thyroidectom* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) NEAR/3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) NEAR/3 (ablation*))) :ab,ti,kw) AND ('hyperthyroidism'/de OR (hyperthyro*:ab,ti,kw) AND ('pregnancy outcome'/de OR 'live birth'/de OR 'premature labor'/de OR 'time to pregnancy'/de OR 'menstrual irregularity'/de OR 'fertility'/de OR 'folliotropin'/de OR 'Muellerian inhibiting factor'/de OR (ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan*) NEXT/1 (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) NEAR/3 (irregular*)) OR ((follicle-stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo-disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in-vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) NEAR/3 (qualit*))) :ab,ti,kw) NOT (subclinical OR Graves)

Medline – 101 refs

(Antithyroid Agents/ OR Carbimazole/ OR Thyroidectomy/ OR Propylthiouracil/ OR Radiopharmaceuticals/ OR Radiofrequency Ablation/ OR (radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) ADJ3 (radio*)) OR ((antithyroid* OR anti-thyroid*) ADJ3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR thyroidectom* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) ADJ3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) ADJ3 (ablation*))) :ab,ti,kf.) AND (Hyperthyroidism/ OR (hyperthyro*:ab,ti,kf.) AND (Pregnancy Outcome/ OR Live Birth/ OR exp Obstetric Labor, Premature/ OR Time-to-Pregnancy/ OR Menstruation Disturbances/ OR Fertility/ OR Follicle Stimulating Hormone/ OR Anti-Mullerian Hormone/ OR (ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan* OR perinatal*) ADJ (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) ADJ3 (irregular* OR disturbanc*)) OR ((follicle-stimulat* OR folliclestimulat*) ADJ3 (hormon*)) OR muellerian* OR ((oocyt*) ADJ3 (retriev*)) OR ((assist*) ADJ3 (reproduct*)) OR ((artificial*) ADJ3 (inseminat*)) OR embryo-disposit* OR ((gamete*) ADJ3 (transfer*)) OR ((in-vitro) ADJ3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) ADJ3 (abort*)) OR ((prematur* OR preterm* OR live*) ADJ3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) ADJ3 (qualit*))) :ab,ti,kf.) NOT (subclinical OR Graves)

Cochrane – 7 refs

((radioiodine* OR radioiodide* OR iodine NEXT/1 123 OR pertechnate OR ((iodine OR iodide) NEAR/3 (radio*)) OR ((antithyroid* OR anti NEXT/1 thyroid*) NEAR/3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR thyroidectom* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) NEAR/3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) NEAR/3 (ablation*))) :ab,ti,kw) AND ((hyperthyro*:ab,ti,kw) AND ((ART OR IVF OR FSH OR (time NEXT/1 to NEXT/1 pregnan*) OR ((pregnan*) NEXT/1 (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) NEAR/3 (irregular*)) OR ((follicle NEXT/1 stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo NEXT/1 disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in NEXT/1 vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) NEAR/3 (qualit*))) :ab,ti,kw)

20220915 Hyperthyroidism search 1: What factors predict maternal hyperthyroidism or ability to stop antithyroid drugs during pregnancy in women with Graves' disease during pregnancy?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	202	200
Medline ALL	Ovid	1946 - Present	145	51

Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	1	0
Total			348	251

*Manually deleted abstracts from trial registries

Embase – 202 refs

('prediction'/de OR 'risk factor'/de OR (predict* OR prognos* OR risk-factor* OR relative-risk*):ab,ti,kw) AND ('hyperthyroidism'/de OR 'subclinical hyperthyroidism'/de OR 'drug withdrawal'/de OR (hyperthyroid* OR ((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR propylthiouracil*):ab,ti,kw) AND ('Graves disease'/de OR (graves):ab,ti,kw) AND ('pregnancy'/exp OR 'pregnant woman'/de OR 'prenatal exposure'/de OR 'prenatal period'/de OR (pregnan* OR prenatal*):ab,ti,kw)

Medline – 145 refs

(Prognosis/ OR Risk Factors/ OR (predict* OR prognos* OR risk-factor* OR relative-risk*):ab,ti,kf.) AND (Hyperthyroidism/ OR (hyperthyroid* OR ((antithyroid* OR anti-thyroid*) ADJ3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR propylthiouracil*):ab,ti,kf.) AND (Graves Disease/ OR (graves):ab,ti,kf.) AND (exp Pregnancy/ OR Pregnant Women/ OR Maternal Exposure/ OR (pregnan* OR prenatal*):ab,ti,kf.)

Cochrane – 1 ref

((predict* OR prognos* OR risk-factor* OR relative-risk*):ab,ti,kw) AND ((hyperthyroid* OR ((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR propylthiouracil*):ab,ti,kw) AND ((graves):ab,ti,kw) AND ((pregnan* OR prenatal*):ab,ti,kw)

20220915 Hyperthyroidism search 2: What factors predict fetal hyperthyroidism during pregnancy in women with Graves' disease during pregnancy?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	66	65
Medline ALL	Ovid	1946 - Present	52	16
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	1	0
Total			119	81

*Manually deleted abstracts from trial registries

Embase - 66 refs

('prediction'/de OR 'risk factor'/de OR (predict* OR risk-factor* OR relative-risk*):ab,ti,kw) AND (((hyperthyroid*) NEAR/6 (fetal OR foetus OR fetus OR neonat* OR newborn*)))ab,ti,kw) AND ('Graves disease'/de OR (graves):ab,ti,kw)

Medline – 52 refs

(Prognosis/ OR Risk Factors/ OR (predict* OR prognos* OR risk-factor* OR relative-risk*):ab,ti,kf.) AND (((hyperthyroid*) ADJ6 (fetal OR foetus OR fetus OR neonat* OR newborn*)))ab,ti,kf.) AND (Graves Disease/ OR (graves):ab,ti,kf.)

Cochrane – 1 ref

((predict* OR risk-factor* OR relative-risk*):ab,ti,kw) AND (((hyperthyroid*) NEAR/6 (fetal OR foetus OR fetus OR neonat* OR newborn*)))ab,ti,kw) AND ((graves):ab,ti,kw)

20220915 Hyperthyroidism search 3: Is gestational transient thyrotoxicosis associated with adverse pregnancy or fetal/child outcomes (miscarriage, preeclampsia, preterm birth, birth weight, fetal serum thyroid dysfunction, fetal tachycardia, fetal goiter, birth defects, newborn thyroid function, child IQ)?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	60	60

Medline ALL	Ovid	1946 - Present	36	2
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	2	0
Total			98	62

*Manually deleted abstracts from trial registries

Embase – 60 refs

('gestational transient thyrotoxicosis'/de OR (gestational-transient-thyrotoxic*):ab,ti,kw)

Medline – 36 refs

((gestational-transient-thyrotoxic*):ab,ti,kf.)

Cochrane – 2 refs

((gestational-transient-thyrotoxic*):ab,ti,kw)

20220915 Hypothyroidism search 1: In women with gestational overt hypothyroidism, is levothyroxine treatment associated with a decreased risk of adverse outcomes compared to no treatment/placebo for: a. Mother/pregnancy? b. Fetus, neonate, and child?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	136	135
Medline ALL	Ovid	1946 - Present	79	20
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	37	29
Total			252	184

*Manually deleted abstracts from trial registries

Maternal, pregnancy, fetal, neonate, and child outcomes=Maternal thyroid dysfunction, infertility, pregnancy loss/live birth, recurrent pregnancy loss, placental abruption, PPROM, fetal hyperthyroidism, GDM, hypertensive disorders of pregnancy, preterm birth, neonatal ICU admission, SGA, LGA, neonatal hyperthyroidism, postpartum thyroiditis, offspring IQ, offspring behavioral disorders, birthweight, development of thyroid disease during pregnancy, delivery method

Embase – 136 refs

('hypothyroidism'/de/mj OR (hypothyro* OR TSH-deficien*):ti,kw) AND (((levothyrox*) NEAR/6 (therap* OR treatment*)))ab,ti,kw) AND ('pregnancy'/exp OR 'pregnant woman'/de OR 'mother'/de OR 'prenatal exposure'/de OR 'pregnancy outcome'/de OR 'pregnancy disorder'/de OR 'preeclampsia'/de OR 'spontaneous abortion'/de OR 'live birth'/de OR 'premature labor'/de OR 'birth weight'/exp OR 'pregnancy complication'/de OR 'prenatal period'/de OR 'prenatal growth'/de OR 'hyperemesis gravidarum'/de OR 'postpartum thyroiditis'/de OR 'puerperium'/de OR 'fetus disease'/de OR 'newborn disease'/de OR 'premature fetus membrane rupture'/de OR 'pregnancy diabetes mellitus'/de OR 'small for date infant'/de OR 'intrauterine growth retardation'/de OR (ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR perinatal OR maternal* OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR preeclamp* OR pre-eclamp* OR ((premat* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) NEAR/3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) NEAR/3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR postpartum OR post-partum OR puerperium OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) NEAR/3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) NEAR/3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational-diabet* OR ((placenta*) NEAR/3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) NEAR/3 (infant*)))ab,ti,kw) AND ('cohort analysis'/de OR 'clinical study'/exp OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*):ab,ti,kw) NOT ((animal/exp OR animal*:de OR nonhuman/de) NOT ('human'/exp)) NOT ([Conference Abstract]/lim OR [preprint]/lim) NOT (subclinical:ti)

Medline – 79 refs

(*Hypothyroidism/ OR (hypothyro* OR TSH-deficien*):ti,kw.) AND (((levothyrox*) ADJ6 (therap* OR treatment*)))ab,ti,kf.) AND (exp Pregnancy/ OR Pregnant Women/ OR Mothers/ OR Prenatal Exposure Delayed Effects/ OR Pregnancy Outcome/ OR

Pre-Eclampsia/ OR Abortion, Spontaneous/ OR Live Birth/ OR exp Obstetric Labor, Premature/ OR Birth Weight/ OR Pregnancy Complications/ OR Hyperemesis Gravidarum/ OR Postpartum Thyroiditis/ OR Postpartum Period/ OR Infant, Newborn, Diseases/ OR exp Pregnancy in Diabetics/ OR Fetal Growth Retardation/ OR (ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR perinatal OR maternal* OR miscarriage* OR ((spontan*) ADJ3 (abort*)) OR preeclampsia* OR pre-eclampsia* OR ((prematur* OR preterm* OR live*) ADJ3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) ADJ3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) ADJ3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR postpartum OR post-partum OR puerperium OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) ADJ3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) ADJ3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational-diabet* OR ((placenta*) ADJ3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) ADJ3 (infant*))) .ab,ti,kf.) AND (cohort analysis/ OR clinical study/ OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*) .ab,ti,kf.) NOT (exp animals/ NOT humans/) NOT (news OR congress* OR abstract* OR book* OR chapter* OR dissertation abstract*) .pt. NOT (subclinical.ti.)

Cochrane – 37 refs

((hypothyro* OR TSH NEXT/1 deficien*):ti,kw) AND (((levothyrox*) NEAR/6 (therap* OR treatment*)):ab,ti,kw) AND ((ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR perinatal OR maternal* OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR preeclampsia* OR pre NEXT/1 eclampsia* OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) NEAR/3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) NEAR/3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR postpartum OR post NEXT/1 partum OR puerperium OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) NEAR/3 (hyperthyroidism OR ICU OR intensive NEXT/1 care)) OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) NEAR/3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational NEXT/1 diabet* OR ((placenta*) NEAR/3 (abruption)) OR ((small NEXT/1 for NEXT/1 date OR small NEXT/1 for NEXT/1 gestational NEXT/1 age OR large NEXT/1 for NEXT/1 date OR large NEXT/1 for NEXT/1 gestational NEXT/1 age) NEAR/3 (infant*))) :ab,ti,kw)

20220915 Hypothyroidism search 2: What is the difference in the risk of adverse maternal or child outcomes between patients with treated pre-existing hypothyroidism and euthyroid pregnant women?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	112	111
Medline ALL	Ovid	1946 - Present	52	9
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	10	8
Total			174	128

*Manually deleted abstracts from trial registries

Maternal, pregnancy, fetal, neonate, and child outcomes=Maternal thyroid dysfunction, infertility, pregnancy loss/live birth, recurrent pregnancy loss, placental abruption, PPROM, fetal hyperthyroidism, GDM, hypertensive disorders of pregnancy, preterm birth, neonatal ICU admission, SGA, LGA, neonatal hyperthyroidism, postpartum thyroiditis, offspring IQ, offspring behavioral disorders, birthweight, development of thyroid disease during pregnancy, delivery method

En ook: treated pre-existing hypothyroidism zijn vrouwen met hypothyreoïdie voor de zwangerschap die dan zwanger worden.

Embase – 112 refs

((hypothyroid* OR TSH-deficien*) NEAR/3 (pre-exist* OR preexist* OR before-pregnan* OR pre-pregnan* OR mother* OR maternal*)):ti,kw) AND ('pregnancy'/exp OR 'pregnant woman'/de OR 'mother'/de OR 'prenatal exposure'/de OR 'pregnancy outcome'/de OR 'pregnancy disorder'/de OR 'preeclampsia'/de OR 'spontaneous abortion'/de OR 'live birth'/de OR 'premature labor'/de OR 'birth weight'/exp OR 'pregnancy complication'/de OR 'prenatal period'/de OR 'prenatal growth'/de OR 'hyperemesis gravidarum'/de OR 'postpartum thyroiditis'/de OR 'puerperium'/de OR 'fetus disease'/de OR 'newborn disease'/de OR 'premature fetus membrane rupture'/de OR 'pregnancy diabetes mellitus'/de OR 'small for date infant'/de OR 'intrauterine growth retardation'/de OR (ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR perinatal OR maternal* OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR preeclampsia* OR pre-

eclamp* OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) NEAR/3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) NEAR/3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR postpartum OR post-partum OR puerperium OR ((fetal OR neonatal) NEAR/3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn OR neonat*) NEAR/3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational-diabet* OR ((placenta*) NEAR/3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) NEAR/3 (infant*)))ab,ti,kw) AND ('cohort analysis'/de OR 'clinical study'/exp OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*)ab,ti,kw) NOT ((animal/exp OR animal*:de OR nonhuman/de) NOT ('human'/exp)) NOT ([Conference Abstract]/lim OR [preprint]/lim)

Medline – 52 refs

(((((hypothyroid* OR TSH-deficien*) ADJ3 (pre-exist* OR preexist* OR before-pregnan* OR pre-pregnan* OR mother* OR maternal*)))ti,kw) AND (exp Pregnancy/ OR Pregnant Women/ OR Mothers/ OR Prenatal Exposure Delayed Effects/ OR Pregnancy Outcome/ OR Pre-Eclampsia/ OR Abortion, Spontaneous/ OR Live Birth/ OR exp Obstetric Labor, Premature/ OR Birth Weight/ OR Pregnancy Complications/ OR Hyperemesis Gravidarum/ OR Postpartum Thyroiditis/ OR Postpartum Period/ OR Infant, Newborn, Diseases/ OR exp Pregnancy in Diabetics/ OR Fetal Growth Retardation/ OR (ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR perinatal OR maternal* OR miscarriage* OR ((spontan*) ADJ3 (abort*)) OR preeclamp* OR pre-eclamp* OR ((prematur* OR preterm* OR live*) ADJ3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) ADJ3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) ADJ3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR postpartum OR post-partum OR puerperium OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) ADJ3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn* OR neonat*) ADJ3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational-diabet* OR ((placenta*) ADJ3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) ADJ3 (infant*)))ab,ti,kf.) AND (cohort analysis/ OR clinical study/ OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*)ab,ti,kf.) NOT (exp animals/ NOT humans/) NOT (news OR congres* OR abstract* OR book* OR chapter* OR dissertation abstract*).pt.

Cochrane – 10 refs

(((((hypothyroid* OR TSH-deficien*) NEAR/3 (pre-exist* OR preexist* OR before-pregnan* OR pre-pregnan* OR mother* OR maternal*)))ti,kw) AND ((ART OR IVF OR FSH OR NICU OR PPROM OR GDM OR SGA OR LGA OR IUGR OR pregnan* OR mother* OR prenatal* OR perinatal OR maternal* OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR preeclamp* OR pre-eclamp* OR ((prematur* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR birthweight* OR ((birth OR neonatal* OR newborn) NEAR/3 (weight*)) OR ((neonatal* OR newborn OR child* OR offspring*) NEAR/3 (intelligen* OR intellect* OR autism* OR autistic* OR IQ OR development* OR ADHD OR behavior* OR behaviour*)) OR postpartum OR post-partum OR puerperium OR ((fetal OR neonatal) NEAR/3 (hyperthyroidism OR ICU OR intensive-care)) OR ((fetal OR foetus OR fetus OR newborn OR neonat*) NEAR/3 (diseas* OR abnormal* OR tachycardia OR thyroid OR tachycardia OR goiter OR growth*)) OR gestational-diabet* OR ((placenta*) NEAR/3 (abruption)) OR ((small-for-date OR small-for-gestational-age OR large-for-date OR large-for-gestational-age) NEAR/3 (infant*)))ab,ti,kw)

20220915 Thyroid nodules/cancer search 1: Are the following treatments for thyroid nodules/cancer: a. Thyroid surgery, b. RAI, c. RFA, d. TSH suppression, e. Targeted systemic therapies, associated with adverse pregnancy outcomes (infertility, pregnancy loss/live birth, recurrent pregnancy loss, fetal hyperthyroidism, preterm birth, neonatal hyperthyroidism, offspring IQ, offspring behavioral disorders, birthweight, delivery method) OR subfertility or ART specific outcomes, as compared to no treatment/placebo?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	158	157
Medline ALL	Ovid	1946 - Present	98	19
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	2	1
Total			258	177

*Manually deleted abstracts from trial registries

(Sub)fertility (including ovarian reserve)=Irregular menstrual cycles, time to pregnancy >12 months, or serum ovarian reserve markers (follicle stimulating hormone, anti-Mullerian hormone)

ART-specific outcomes=Number of oocytes retrieved, fertilization rate, embryo quality, implantation rate, pregnancy rates

Embase – 158 refs

('radioactive iodine'/de/mj OR 'antithyroid agent'/de/mj OR 'carbimazole'/de/mj OR 'thyroidectomy'/de/mj OR 'propylthiouracil'/de/mj OR 'iodine 123'/de/mj OR 'radiopharmaceutical agent'/de/mj OR 'external beam radiotherapy'/de/mj OR 'radiofrequency ablation'/de/mj OR (radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) NEAR/3 (radio*)) OR ((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR thyroidectomy* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) NEAR/3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) NEAR/3 (ablation*))) :ti,kw) AND ('thyroid tumor'/exp OR (((thyroid*) NEAR/6 (tumor* OR tumour* OR neoplas* OR cancer* OR nodule*))) :ab,ti,kw) AND ('pregnancy outcome'/de OR 'live birth'/de OR 'premature labor'/de OR 'time to pregnancy'/de OR 'menstrual irregularity'/de OR 'fertility'/de OR 'folliotropin'/de OR 'Muellerian inhibiting factor'/de OR (ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan*) NEXT/1 (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) NEAR/3 (irregular*)) OR ((follicle-stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo-disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in-vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR ((prematu* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) NEAR/3 (qualit*))) :ab,ti,kw)

Medline – 98 refs

(*Antithyroid Agents/ OR *Carbimazole/ OR *Thyroidectomy/ OR *Propylthiouracil/ OR *Radiopharmaceuticals/ OR *Radiofrequency Ablation/ OR (radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) ADJ3 (radio*)) OR ((antithyroid* OR anti-thyroid*) ADJ3 (drug* OR agent* OR medication*)) OR carbimazole* OR methimazole* OR thyroidectomy* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) ADJ3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) ADJ3 (ablation*))) :ti,kf) AND (exp Thyroid Neoplasms/ OR (((thyroid*) ADJ6 (tumor* OR tumour* OR neoplas* OR cancer* OR nodule*))) :ab,ti,kf) AND (Pregnancy Outcome/ OR Live Birth/ OR exp Obstetric Labor, Premature/ OR Time-to-Pregnancy/ OR Menstruation Disturbances/ OR Fertility/ OR Follicle Stimulating Hormone/ OR Anti-Mullerian Hormone/ OR (ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan* OR perinatal*) ADJ (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) ADJ3 (irregular* OR disturbanc*)) OR ((follicle-stimulat* OR folliclestimulat*) ADJ3 (hormon*)) OR muellerian* OR ((oocyt*) ADJ3 (retriev*)) OR ((assist*) ADJ3 (reproduct*)) OR ((artificial*) ADJ3 (inseminat*)) OR embryo-disposit* OR ((gamete*) ADJ3 (transfer*)) OR ((in-vitro) ADJ3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) ADJ3 (abort*)) OR ((prematu* OR preterm* OR live*) ADJ3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) ADJ3 (qualit*))) :ab,ti,kf)

Cochrane – 2 refs

((radioiodine* OR radioiodide* OR iodine-123 OR pertechnate OR ((iodine OR iodide) NEAR/3 (radio*)) OR ((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR thyroidectomy* OR propylthiouracil* OR radiopharmaceutic* OR ((beam*) NEAR/3 (radiotherap* OR radiation* OR irradiation*)) OR ((radiofrequen*) NEAR/3 (ablation*))) :ti,kw) AND (((thyroid*) NEAR/6 (tumor* OR tumour* OR neoplas* OR cancer* OR nodule*))) :ab,ti,kw) AND ((ART OR IVF OR FSH OR time-to-pregnan* OR ((pregnan*) NEXT/1 (outcome* OR rate*)) OR fertilit* OR infertilit* OR subfertilit* OR ((menstrual* OR menstruat*) NEAR/3 (irregular*)) OR ((follicle-stimulat* OR folliclestimulat*) NEAR/3 (hormon*)) OR muellerian* OR ((oocyt*) NEAR/3 (retriev*)) OR ((assist*) NEAR/3 (reproduct*)) OR ((artificial*) NEAR/3 (inseminat*)) OR embryo-disposit* OR ((gamete*) NEAR/3 (transfer*)) OR ((in-vitro) NEAR/3 (fertilis* OR fertiliz*)) OR miscarriage* OR ((spontan*) NEAR/3 (abort*)) OR ((prematu* OR preterm* OR live*) NEAR/3 (labor OR birth OR labour OR delivery OR ruptur*)) OR ((embryo) NEAR/3 (qualit*))) :ab,ti,kw)

20220914 Postpartum search 1: What is the association of postpartum thyroiditis with postpartum outcomes (chronic maternal hypothyroidism, recurrence of PPT, lactation, depression)?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	123	119
Medline ALL	Ovid	1946 - Present	67	9
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	3	0
Total			193	128

*Manually deleted abstracts from trial registries

Embase – 123 refs

('postpartum thyroiditis'/de OR (((postpartum OR postnatal* OR post-partum OR post-natal*) NEAR/3 (thyroiditis))):ab,ti,kw) AND ('lactation'/de OR 'postnatal depression' OR (((postpartum OR postnatal* OR post-partum OR post-natal*) NEAR/3 (hypothyroid* OR recurrence* OR depress*)) OR lactation*):ab,ti,kw)

Medline – 67 refs

(Postpartum Thyroiditis/ OR (((postpartum OR postnatal* OR post-partum OR post-natal*) ADJ3 (thyroiditis))):ab,ti,kf.) AND (Lactation/ OR Depression, Postpartum/ OR (((postpartum OR postnatal* OR post-partum OR post-natal*) ADJ3 (hypothyroid* OR recurrence* OR depress*)) OR lactation*):ab,ti,kf.)

Cochrane – 3 refs

(((((postpartum OR postnatal* OR post-partum OR post-natal*) NEAR/3 (thyroiditis))):ab,ti,kw) AND (((postpartum OR postnatal* OR post-partum OR post-natal*) NEAR/3 (hypothyroid* OR recurrence* OR depress*)) OR lactation*):ab,ti,kw)

20220915 Postpartum search 2: In women with subclinical hypothyroidism in pregnancy (untreated or treated with levothyroxine), what are the future postpartum fertility outcomes (irregular menstrual cycle, time to pregnancy >12 months, and serum ovarian reserve markers (follicle stimulating hormone, anti-Mullerian hormone)

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	150	147
Medline ALL	Ovid	1946 - Present	104	9
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	38	22
Total			292	178

*Manually deleted abstracts from trial registries

Embase – 150 refs

(((((subclinical-hypothyroid*) NEAR/6 (pregnant-women OR pregnant-woman OR during-pregnan* OR gestational*))):ab,ti,kw) AND ('cohort analysis'/de OR 'clinical study'/exp OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*):ab,ti,kw) NOT ((animal/exp OR animal*:de OR nonhuman/de) NOT ('human'/exp)) NOT ([Conference Abstract]/lim OR [preprint]/lim)

Medline – 104 refs

(((((subclinical-hypothyroid*) ADJ6 (pregnant-women OR pregnant-woman OR during-pregnan* OR gestational*))):ab,ti,kf.) AND (cohort analysis/ OR clinical study/ OR (random* OR trial OR groups OR cohort* OR longitudinal* OR prospective* OR retrospective*):ab,ti,kf.) NOT (exp animals/ NOT humans/) NOT (news OR congres* OR abstract* OR book* OR chapter* OR dissertation abstract*).pt.

Cochrane – 38 refs

(((((subclinical-hypothyroid*) NEAR/6 (pregnant-women OR pregnant-woman OR during-pregnan* OR gestational*))):ab,ti,kw)

20220915 Postpartum search 3: Does levothyroxine treatment for postpartum overt or subclinical hypothyroidism improve lactation outcomes (milk production, duration of breastfeeding, frequency of breastfeeding)?

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	217	215
Medline ALL	Ovid	1946 - Present	125	33
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	9	7

Total	351	255
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*Manually deleted abstracts from trial registries

Embase – 217 refs

('hypothyroidism'/de/mj OR (hypothyro* OR TSH-deficien*):ti,kw) AND ('lactation'/de OR (lactation OR breastfeeding OR milk-production):ab,ti,kw) NOT (infant)

Medline – 125 refs

(*Hypothyroidism/ OR (hypothyro* OR TSH-deficien*):ti,kw.) AND (Lactation/ OR exp Breast Feeding/ OR (lactation OR breastfeeding OR milk-production).ab,ti,kf.) NOT (infant)

Cochrane – 9 refs

((hypothyro* OR TSH-deficien*):ti,kw) AND ((lactation OR breastfeeding OR milk-production):ab,ti,kw) NOT (infant)

20220915 Postpartum search 4: What is the association of maternal ATD use during lactation as compared to no ATD use with infant and maternal outcomes? a. Infant risks (thyroid dysfunction, difficulty with lactation, child IQ, developmental delays, autism, ADHD, b. Maternal risks (thyroid dysfunction)

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Embase	Embase.com	1971 - Present	299	293
Medline ALL	Ovid	1946 - Present	191	51
Cochrane Central Register of Controlled Trials*	Wiley	1992 - Present	9	4
Total			499	349

*Manually deleted abstracts from trial registries

Embase – 299 refs

('antithyroid agent'/de OR 'carbimazole'/de OR 'propylthiouracil'/de OR (((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR propylthiouracil*):ab,ti,kw) AND ('lactation'/de OR (lactation OR breastfeeding OR milk-production):ab,ti,kw)

Medline – 191 refs

(Antithyroid Agents/ OR Carbimazole/ OR Propylthiouracil/ OR (((antithyroid* OR anti-thyroid*) ADJ3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR propylthiouracil*).ab,ti,kf.) AND (Lactation/ OR exp Breast Feeding/ OR (lactation OR breastfeeding OR milk-production).ab,ti,kf.)

Cochrane – 9 refs

(((((antithyroid* OR anti-thyroid*) NEAR/3 (drug* OR agent*)) OR carbimazole* OR methimazole* OR propylthiouracil*):ab,ti,kw) AND ((lactation OR breastfeeding OR milk-production):ab,ti,kw)