

PREGNANCY

Interpreting thyroid lab values during pregnancy

Normal changes in thyroid lab values during pregnancy include an increase in total thyroid hormone levels due to an estrogen-induced increase in binding proteins, and low TSH in the first trimester due to hCG stimulation of thyroid hormone production. Free hormone assays are not reliable during pregnancy, except for equilibrium dialysis, as other labs are affected by the changes in thyroid binding hormone.

If **hypothyroidism** is diagnosed, with low total thyroid hormone levels, treatment with levothyroxine should be initiated immediately.



TSH will be lower than average, so “normal” non-pregnant ranges may not be accurate for pregnant patients.

Total thyroid hormone is the most reliable lab value for monitoring thyroid function during pregnancy. The normal range does need to be increased by 50% to account for the increase in binding proteins.

If **hyperthyroidism** is diagnosed, treatment with thionamides is the preferred option during pregnancy. Radioiodine ablation is contraindicated during pregnancy. If necessary, surgery can be performed in the second trimester, but is generally reserved for those who are unable to tolerate thionamides.



Further reading

Alexander EK, Pearce EN, Brent GA, et al. 2017 guidelines of the American Thyroid Association for the diagnosis and management of thyroid disease during pregnancy and the postpartum. *Thyroid*. 2017. 27(3):315–389.