

## What is hypothyroidism?

The thyroid gland is located in your neck. It produces 2 hormones (T3 and T4). Your brain produces thyroid-stimulating hormone (TSH) that signals the thyroid gland to release more thyroid hormone. Thyroid hormones are involved in many normal functions of your body. We most often measure the TSH to diagnose hypo- or hyper-thyroidism.

- Hypothyroidism: the thyroid is not producing enough T3/T4
- Subclinical hypothyroidism: the thyroid is not producing enough T3/T4 in pregnancy (or a normal TSH with low T3/T4 outside of pregnancy)
- Hyperthyroidism: the thyroid is producing too much T3/T4

## What are the symptoms associated with hypothyroidism?

Some women will have no symptoms. Those who do may experience poor appetite, fatigue, constipation, weight gain, dry/itchy skin or muscle cramps. Some people develop a goiter (swelling of the thyroid gland that can cause visible swelling on the neck)

## Why is thyroid function important in pregnancy?

Pregnancy requires the thyroid gland to work a little harder. For the first trimester of pregnancy, the baby is completely dependent on the mother for the production of thyroid hormone. Once baby develops its own thyroid it will produce thyroid hormone on its own.

Untreated hypothyroidism in pregnancy can increase the risk of a preterm birth, a low birth weight baby, miscarriage, high blood pressure and bleeding after the delivery. Treatment of hypothyroidism is important for both mom and baby!

## How is hypothyroidism diagnosed?

If you have risk factors, your health care provider will order the TSH blood test. We will also sometimes order thyroid antibodies (blood test) if indicated. Based on your test results we will then review the diagnosis and discuss a treatment plan. Your TSH will be monitored throughout your pregnancy.

## How is hypothyroidism treated?

We replace the thyroid hormone with a pill, which is taken daily called L-thyrosine (Eltroxin or Synthroid). Your dose may be adjusted throughout your pregnancy. The goal is to keep the TSH below 2.5mU/L.

If you have subclinical hypothyroidism we recommend that you stay on the medication for 2 weeks after baby is born to help establish good milk production. You can then stop the medication for you UNLESS you were instructed otherwise.

5% of women who had new hypothyroidism in pregnancy will become overt hypothyroid each year. You should therefore have your TSH checked each year and before another pregnancy.

## What if I had hypothyroidism before I got pregnant?

Women who are already on thyroid medication before pregnancy should contact their care provider as soon as they have a positive pregnancy test. In general, you require a dose increase of approximately 30% in the first trimester.

Optimizing medication before 12 weeks is the goal as this is when it has the most benefit.

If you have pre-existing hypothyroidism we recommend that you stay on the increased pregnancy dose for 2 weeks after baby is born then decrease to your pre-pregnancy dose. You should have your TSH checked at 6 weeks.

## Reference:

1. Chan, S (MD). (2012). Managing thyroid problems in pregnancy [PowerPoint slides]. University of Birmingham. Retrieved from: 10th Annual Refresher in Primary Maternity care.
2. Feig, D (MD). (June 3, 2016). The Debate About Subclinical Hypothyroidism in Pregnancy [PowerPoint Slides]. Retrieved from 14th Annual Refresher in Primary Maternity Care.